Guinea
A Socioeconomic Assessment of Well-Being and Poverty

March 31,1997
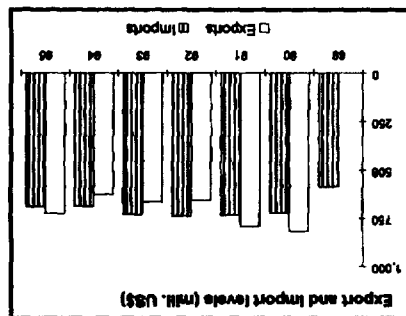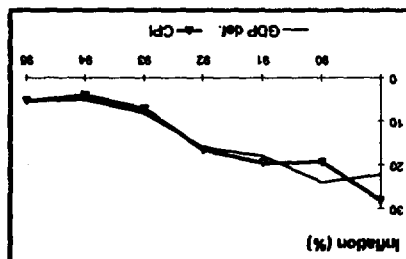
Institutional and Social Policy Unit &
Country Department I6
Africa Region

PRICES and GOVERNMENT FINANCE

	1976	1985	1994	1995
Domestic prices				
(% change)				
Consumer prices	..	..	4.1	5.3
Implicit GDP deflator	..	..	5.0	5.3
Government finance				
(% of GDP)				
Current revenue	..	..	10.4	11.0
Current budget balance	..	..	4.5	6.1
Overall surplus/deficit	..	..	-3.6	-2.5

Inflation (%) — GDP def., CPI — (90, 91, 92, 93, 94, 95)

TRADE

(millions US$)	1976	1985	1994	1995
Total exports (fob)	..	..	826	725
Bauxite	..	..	272	298
Alumina	..	..	103	110
Manufactures	..	..	..	..
Total imports (cif)	..	..	687	690
Food	..	..	74	73
Fuel and energy	..	..	68	82
Capital goods	..	..	153	182
Export price index (1987=100)	..	..	..	..
Import price index (1987=100)	..	..	245	260
Terms of trade (1987=100)	..	..	..	..

Export and import levels (mill. US$) — Exports, Imports — (89, 90, 91, 92, 93, 94, 95)

BALANCE of PAYMENTS

(millions US$)	1976	1985	1994	1995
Exports of goods and non-factor services	..	..	872	774
Imports of goods and non-factor services	..	..	828	823
Resource balance	..	..	-156	-49
Net factor income	..	..	-118	-133
Net current transfers	..	..	-41	-35
Current account balance, before official transfers	..	..	-315	-217
Financing items (net)	..	..	280	348
Changes in net reserves	-3	-2	34	-31
Memo:				
Reserves including gold (mill. US$)	..	..	164	209
Conversion rate (local/US$)	20.3	24.3	976.7	990.8

Current account balance to GDP ratio (%) — (89, 90, 91, 92, 93, 94, 95)

EXTERNAL DEBT and RESOURCE FLOWS

(millions US$)	1976	1985	1993	1994
Total debt outstanding and disbursed	760	1,455	2,843	3,104
IBRD	68	55	0	0
IDA	0	117	681	773
Total debt service	36	72	84	97
IBRD	8	8	0	0
IDA	0	1	6	8
Composition of net resource flows				
Official grants	3	45	166	182
Official creditors	54	48	242	131
Private creditors	4	18	3	-6
Foreign direct investment	0	1	3	30
Portfolio equity	0	0	0	0
World Bank program				
Commitments	21	33	15	48
Disbursements	0	22	134	63
Principal repayments	2	5	1	2
Net flows	-2	17	132	61
Interest payments	6	4	4	8
Net transfers	-8	12	128	55

Composition of total debt, 1994 (mill. US$)

A - IBRD B - IDA C - IMF D - Other multilateral E - Bilateral F - Private G - Short-term

E 1479, D 531, C 71, B 773, F 152, G 96
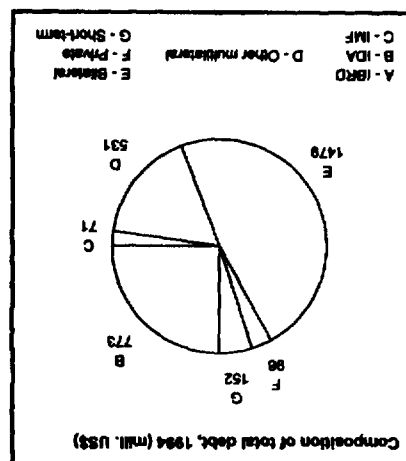
Guinea at a glance

POVERTY and SOCIAL

	Guinea	Sub-Saharan Africa	Low-income
Population mid-1994 (millions)	6.4	566	3,176
GNP per capita 1994 (US$)	520	510	390
GNP 1994 (billions US$)	3.3	288	1,239
Average annual growth, 1980-94			
Population (%)	2.8	2.9	1.8
Labor force (%)	1.8	2.7	1.8
Most recent estimate (latest year available since 1989)			
Poverty: headcount index (% of population)	..	..	..
Urban population (% of total population)	30	26	26
Life expectancy at birth (years)	44	52	66
Infant mortality (per 1,000 live births)	134	94	53
Child malnutrition (% of children under 5)	18	..	38
Access to safe water (% of population)	60	..	67
Illiteracy (% of population age 15+)	76	50	41
Gross primary enrollment (% of school-age population)	46	66	106
Male	61	77	112
Female	30	62	100

Development diamond*

- Life expectancy
- GNP per capita
- Gross primary enrollment
- Access to safe water

—— Guinea
—— Low-income group

KEY ECONOMIC RATIOS and LONG-TERM TRENDS

	1975	1985	1994	1995
GDP (billions US$)	..	..	3.4	3.7
Gross domestic investment/GDP	..	..	13.6	14.8
Exports of goods and non-factor services/GDP	..	..	19.8	21.0
Gross domestic savings/GDP	..	..	9.0	10.7
Gross national savings/GDP	..	..	4.3	5.6
Current account balance/GDP	..	..	-9.3	-9.6
Interest payments/GDP	..	..	2.2	2.0
Total debt/GDP	..	..	91.6	88.6
Total debt service/exports	..	..	33.4	20.7
Present value of debt/GDP	..	..	..	61.2
Present value of debt/exports	..	..	..	302.3

(average annual growth)	1975-84	1985-95	1994	1995	1996-04
GDP	..	3.7	4.0	4.6	4.9
GNP per capita	..	1.4	1.6	1.8	1.9
Exports of goods and nfs	..	3.1	-8.4	7.8	7.2
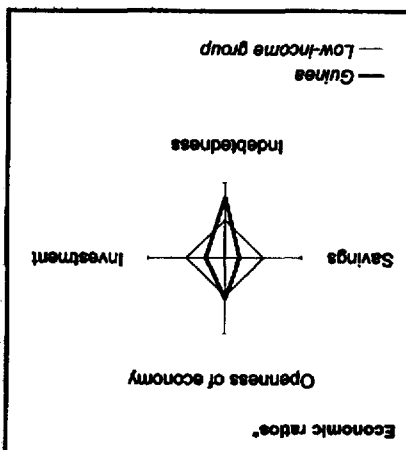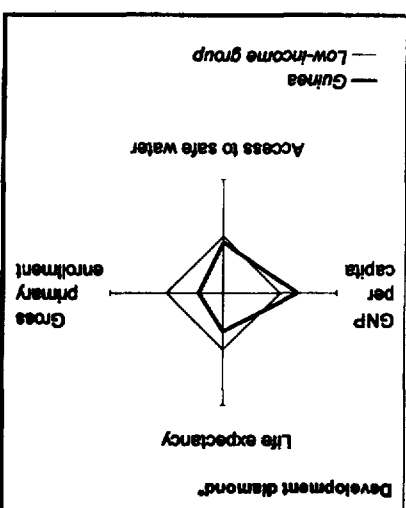
Economic ratios*

- Savings
- Investment
- Indebtedness
- Openness of economy

—— Guinea
—— Low-income group

STRUCTURE of the ECONOMY

(% of GDP)	1975	1985	1994	1995
Agriculture	..	..	24.1	24.1
Industry	..	..	30.8	30.5
Manufacturing	..	..	4.6	4.7
Services	..	..	45.1	45.4
Private consumption	..	..	82.3	80.9
General government consumption	..	..	8.7	8.5
Imports of goods and non-factor services	..	..	24.4	22.3

(average annual growth)	1975-84	1985-95	1994	1995
Agriculture	..	4.2	5.1	5.0
Industry	..	2.6	3.2	3.8
Manufacturing	..	..	..	..
Services	..	4.3	4.0	4.9
Private consumption	..	3.4	6.5	2.3
General government consumption	..	5.2	-2.2	4.8
Gross domestic investment	..	1.6	-8.0	14.0
Imports of goods and non-factor services	..	2.0	-10.7	0.8
Gross national product	..	4.3	4.4	4.6

Growth rates of output and investment (%)

—— GDI   —●— GDP
(years: 90 91 92 93 94 95)

Growth rates of exports and imports (%)

—— Exports   —●— Imports
(years: 90 91 92 93 94 95)

TABLES

BOXES

FIGURES

Table of Contents

Foreword

1.   In essence, a poverty assessment is an exercise in social evaluation in the sense that it hypothesizes alternative social arrangements. The fitness of a social arrangement may be judged on the basis of the sustainable quality of the lives which it supports. In this regard improvement of their living standards is one of the fundamental expectations of those who are governed. The World Bank has, therefore, declared sustainable poverty reduction its overarching objective and a benchmark measure of its performance as a Development institution. This declaration is equivalent to a choice of social evaluation rule.

2.   The living standard enjoyed by an individual may be interpreted as an outcome of the interaction between opportunities offered by society and the readiness and ability of the individual to exploit such opportunities. Thus poverty defined in terms of living standard, has both an individual and a collective dimension; and achievements at the aggregate level, such as longevity and literacy, are key determinants of the possibilities at the individual level. The purpose of this report is to draw strategic implications about such possibilities from available information on the distribution of economic welfare in Guinea. It adds to a framework currently under development by the Government of Guinea to restructure its socioeconomic development policies.

3.   Given the necessity of value judgments, sensitivity analysis is applied to the choice of social evaluation functions. Atkinson's Equally Distributed Equivalent measures of welfare are used alongside the standard Foster-Greer-Thorbecke poverty indices. Inequality is measured by means of extended Gini and concentration indices. The report emphasizes the importance of a sound implementation strategy to ensure impact. This critically hinges on governance issues: who should hold institutions accountable, and how, if they are to be effective in reducing poverty? The empowerment of stakeholders to influence institutional behavior is a key to sustained progress on poverty reduction.

4.   The report was drafted by B. Essama-Nssah in close collaboration with Mark C. Woodward, Ali Ghobadi and our counterparts in Guinea, namely: Omar Diallo, Mamadou Louda Bah, Sidibe Marlyatou Diallo, and Ibrahima Sory Sangare. Within the Bank, Essimi Menye, Robert Ngong and John Ngwafon provided technical support on statistical matters. Helpful comments were received from Laura Cooley, Lionel Demery, Peter J. Lambert (University of York), Branko Milanovic, Ok Pannenborg, Mustapha Rouis, Ken Sigrist, Dominique van de Walle, and Jack W. van Holst Pellekaan. The report also makes extensive use of work done on Guinea by Cornell University, in particular on labor market issues. Document preparation was handled by Sandra Ghosh, Anne-Sophie Ville, and Nadege Thadey.

underlying debt. This made it increasingly difficult for the government to meet its necessary investment in education, health and physical infrastructure.

5.   A military coup in 1984 brought a new regime to power and the establishment of the Second Republic. This new regime initiated a public policy reversal both in political and economic activities. In late 1985, the new government launched the *Economic and Financial Reform Program (PREF)*[3]. This program was intended to lead to a radical restructuring of the Guinean economy through a significant reduction of the role of the state in the productive sphere of the economy, and an increasing reliance on the private sector to lead future socioeconomic development. The new program was seen as the only solution to the extreme failure of centrally planned economic development in Guinea.

6.   The reform program produced encouraging results in its first 5 years (1986-1990). A key component of this reform was a substantial devaluation of the national currency in early 1986. This devaluation, which brought the official exchange rate in line with that of the parallel market, also marked a shift from a fixed to a managed float regime. This was a very important step in view of the fundamental role played by the exchange rate as a key determinant of a country's competitiveness. As a result of this improved incentive structure, export value increased about 16 percent between 1986 and 1989. Most of this increase emerged from the non-mining sector. During the same period, the economy grew about 4.5 percent in real terms and about 2 percent in per capita terms. This growth was more concentrated in small-holder farming and in the service sector. Furthermore, inflation dropped significantly from 72 percent to approximately 28 percent.

7.   The second phase of the reform program proved more difficult than the first and coincided *with political developments* that may have been a complicating factor. Starting in 1991, the implementation pace slowed down significantly. Some positive results were achieved, however. Several non-viable projects were deleted from the Government's public investment portfolio, while the distribution of petroleum, water and electricity was privatized. The inflation rate was reduced from 19.4 percent in 1990 to 7.1 in 1993 and further in 1994 to about 4 percent. Non-mining revenues increased from 4.6 percent of GDP in 1988 to about 7.4 percent in 1994.

8.   On the political front the new-found openness of the system allowed events that revealed to some extent the *limited governance capacity* within the country[4]. Free press, strikes and demonstrations were authorized in 1990. In 1991, a new constitution was adopted and multi-party presidential elections were held in 1993. Within this new context the government has had to deal with increasing social unrest. Public-sector salaries were doubled in 1991 as a result of violent demonstrations by public sector

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[3] Programme de Réformes Economiques et Financières. See World Bank (1990a:10).

[4] Governance capacity is taken here to mean the ability of the state apparatus to craft and enforce the rules of the game and to arbitrate effectively any conflict that may arise either over the rules themselves or their enforcement (Frischtak 1994).

Executive Summary

Context

1.   Guinea is considered *one of the poorest* countries in Africa. Although its per capita GDP, currently estimated at US$ 532, is slightly above the average for Sub-Saharan Africa (US$ 520), the United Nations Report on Human Development has for several years ranked this country last among some 160 countries. Yet the country is *richly endowed* with agricultural, mineral and energy resources. Depending on the chosen poverty line, on the basis of data from an integrated household survey (IHS), 40 to 57 percent of the entire population may have lived in poverty in 1994. Life expectancy at birth is estimated at 45 years. And roughly 77 percent of the adult population is considered illiterate. This situation is mostly blamed on past policy failures and on the limitations of the current policy stance.

2.   The development of the country since independence in 1958 may be broken into two major periods. Prior to 1985, the socioeconomic policy framework aimed at modernizing and industrializing the country. Its implementation was based on a *command and control approach* and led to very poor economic performance and a dismal social situation. It is estimated that real per capita GDP declined by 11 percent between 1960 and 1965, and then by about 1 percent between 1965 and 1970[1]. From 1960 to 1974, GDP per capita declined 4 percent[2]. Growth was estimated at 3.5 percent between 1975 and 1980. This positive growth was essentially due to the opening of some major new bauxite operations. But, as soon as these reached their full capacity in 1980, overall growth started to decline, following the trend of the non-mining economy.

3.   The development strategy driven by the public sector led not only to poor aggregate growth but also to some undesirable structural changes in the economy. Increasingly, private-sector activities moved into the informal sector, conducting their business through parallel channels. While the official sector relied on mining exports for its income and foreign exchange, the informal sector depended more upon clandestine exports and remittances from abroad. The agricultural incentive structure led to a virtual cessation of production for official markets. Thus Guinea went from being a major exporter of agricultural products to a major exporter of minerals and a net food importer.

4.   The poor performance of the para-statal sector, combined with the flight of private activities from official channels, led to a deterioration of public finances. The situation was exacerbated by increasing budgetary subsidies to public enterprises. The financial position of the government was further squeezed by external imbalances stemming from poorly designed investment projects that failed to yield the expected returns to meet the

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[1] Arulpragasam and Sahn (1994:53).

[2] World Bank (1990a:1).

2

natural regions, Upper Guinea is the poorest, followed by Middle Guinea and Lower Guinea. Forest Guinea and Conakry represent the two least poor regions of the country. This regional ranking stays the same regardless of the poverty line used or the poverty dimension considered (incidence, intensity or severity). In fact, one gets exactly the same ranking by switching to another type of welfare indicator such as the *equally distributed equivalent expenditure* (this is the level of per capita expenditure which, if enjoyed equally by every individual, would provide the same level of social well-being as the current distribution).

13. INEQUALITY. In the broadest sense, income poverty in a country is determined by the size and the distribution of the national income. Several indicators of inequality were considered in this assessment. The ordinary Gini coefficient is estimated at 45 percent, while the Atkinson Index of inequality is 24 percent (when the degree of inequality aversion is set equal to one). The Lorenz structure associated with the regional distribution of per capita household expenditure, reveals that Conakry and the Forest region have a share of expenditure higher than their respective share of the total population. In terms of intra-regional inequality, the available data reveals that Conakry is the region with the highest inequality (measured by the ordinary Gini coefficient) in the distribution of per capita expenditure. Middle Guinea, the Forest region and Upper Guinea are ranked second, third and forth respectively.

14. The decomposition of the overall welfare indicator has very useful policy implications. Concentration indices may reveal which commodities are mostly consumed by the poor and which by the non-poor.[5] Such information may be used to justify subsidies in well-targeted interventions for poverty alleviation. Furthermore, the ratio of the concentration index to the overall Gini coefficient may be interpreted as an income elasticity. These elasticities may help determine the progressivity of any policy, such as a tax, affecting a particular expenditure component. A *policy is considered progressive if its implementation leads to a reduction of the real income Gini index*. Thus, a tax on an expenditure item is progressive if the income elasticity of the commodity is greater than one. In such a case, the tax base is increasing with income because a higher burden is imposed on the rich in proportional terms. Hence, inequality in real terms decreases.

15. Income elasticities have been estimated for ten expenditure components: (1) food, (2) clothing, (3) housing, (4) durables, (5) personal care, (6) education, (7) transportation and communication, (8) recreation, (9) ceremonies and other transfers, and (10) other. The results show that expenditures on durables, personal care, transportation and communication, recreation, ceremonies and other (non-classified) do contribute positively to the overall observed inequality. The fact that the income elasticity of these

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[5] When a specific expenditure component is arranged in ascending order of the total expenditure and one plots the cumulative proportions of the components against the corresponding cumulative proportions of the population, one gets the concentration curve. The concentration index is equal to one minus the area under the concentration curve. This curve may lie above the line of perfect equality (the 45 degree line) in which case the concentration index is negative (Podder 1993:52).

employees. Additional social unrest, characterized by increasing criminality, posed a direct challenge to governmental authority and created a state of uncertainty that led to a significant reduction in private investment. As a consequence, economic growth faltered. The growth rate fell from a yearly average of 4 percent in the second half of the 1980s to 2.4 percent in 1991. The current economic growth rate is estimated at 4 percent.

The Distribution of Welfare and Poverty

9.   Maintaining and improving the *living standard* of the population may be considered the ultimate objective of socioeconomic policies and one of the fundamental expectations of those who are governed. A member of a given society is deemed poor if his or her standard of living falls short of a minimum considered acceptable in accordance with prevailing social customs and cultural norms. The living standard enjoyed by an individual has an income and a non-income dimension, and may be viewed as an outcome of *interaction* between opportunities offered by society, and the willingness and ability of the individual to take advantage of those opportunities. Thus poverty in any country, defined as a low level of achievement in term of living standard, has both an *individual* and a *collective* dimension.

10.   The enactment of a policy is bound to involve a differential distribution of costs and benefits among socioeconomic groups. The desirability of such a policy depends on how the gains of the winners are balanced against the losses of the losers. Its feasibility, however, hinges crucially on the actual weighing of those gains and losses within the prevailing socio-political system. Therefore, *the assessment of the distribution of economic welfare within a society is an important step in the analysis of both the desirability and feasibility of a policy proposal.* When the social objective is focused on poverty reduction, then a picture of the distribution of the standard of living at one point in time provides a benchmark against which to assess future progress. It also helps identify *target* groups or commodities that may need special treatment in the design and implementation of poverty alleviating policies.

11.   INCOME POVERTY. The assessment of income poverty in Guinea is based on the 1994 Integrated Household Survey and primarily uses two poverty lines set by the government: an upper poverty line of GNF 293,713 and a lower one of GNF 172,283. The latter is, in fact, the estimated cost of achieving the minimum daily requirement of 2,000 kilo-calories. Based on these poverty lines, three measures of poverty have been computed indicating *incidence, intensity* and *severity* respectively. Incidence relates to the proportion of the population living below the minimum standard, whereas intensity reflects the extent to which the well-being of the average poor person or household falls below the poverty line. Lastly, severity relates to the degree of inequality among the poor.

12.   It is estimated that at least 40 percent of the total population live below the upper poverty line. A geographical breakdown of this information reveals that, even though urban poverty is significant, poverty in Guinea remains a rural phenomenon. In terms of

21.   Former captives' adoption of new land uses or management practices that increase the land user's claim on the land, such as the planting of permanent tree crops (trees remain the property of the planter as distinct from the owner of the land) are likely to be prohibited by the nobles who hold ultimate rights to the land. It would be interesting to investigate the extend to which this example applies to the rest of Guinea.

22.   LACK OF DIVERSIFICATION OF PRODUCTIVE ACTIVITIES. The structure of the Guinean economy may be characterized in terms of the sectoral distribution of GDP and on the basis of indices of sectoral linkages. In terms of sectoral shares, agriculture represents 24 percent of GDP.[7] Industry accounts for about 31 percent of GDP and the service sector about 45 percent. The sectoral linkages are computed terms of the *Rasmussen Indices of backward and forward linkages* for 1990. The index of backward linkage is a normalized measure of the total impact on the economy of a one unit increase in the demand for the output of the sector under consideration. A value of this index greater than one indicates that an increase in the demand for the output of this sector will generate a greater than average impact throughout the rest of the economy. Similarly, the forward linkage index is a normalized measure of the impact on a given sector from a unit increase in all final demand. A forward linkage index greater than unity means that the sector under consideration would receive a greater than average impact from an increase in all final demands. In this Rasmussen framework, sectors with linkage indices greater than one are considered key sectors.

23.   *The results reveal both the lack of a diversification of the productive sphere of the Guinean economy and also the weak sectoral inter-connectedness.* Indeed, only the manufacturing sector shows both backward and forward linkages greater than one. However, it would be erroneous to consider this sector a key sector in light of its small share in GDP (about 5%). *In the particular case of agriculture, which ought to be a leading sector in the economy in view of its share in total employment, the backward linkage is less than one, which means the stimulation of the demand for agricultural products will not result in any significant impact throughout the economy.* This is probably due to the subsistence characteristics of Guinean agriculture and the fact that it does not rely significantly on inputs from the rest of the economy nor does it provide significant input to other processing industries.

24.   *If the agricultural sector is to play a leading role in promoting growth and reducing poverty, then policy measures must be found to enhance its productivity and its ties with the rest of the economy.* In this context, it is to be noted that the current agricultural sector strategy is encoded in the Letter of Agricultural Development Policy (LPDA).[8] Among the stated objectives are to: (1) promote food security; (2) promote agricultural exports; (3) provide essential services to farmers; and (4) ensure a rational management of natural resources. *With respect to the achievement of food security, the*

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[7]   International Economics Department data. World Bank, 1995.

[8]   *Lettre de Politique de Développement Agricole*, 1991, which is currently under revision.

expenditures is greater than one suggests that they could be targeted in the search for a base to an indirect tax system. If such a tax system could be implemented, the above results show that such a system would be progressive.

Some Structural and Policy Determinants of Welfare and Poverty

16.   Within a given society, social welfare, in general, and poverty, in particular, depend essentially on the *structure of the economy* and the *policy stance*. These outcomes depend also on the growth and inequality characteristics of the system. The interaction between these two factors may limit or enhance economic growth. It may also increase or reduce inequality. The structure of an economy may be defined in terms of resource endowments and the institutional setting (markets, government, community and family).

17.   LAND TENURE. Traditional land-tenure systems in Guinea appear to involve severe gender bias and discrimination against certain castes within the traditional society. This maybe illustrated by the following example from the Fouta Jalon.[6] In this area approximately 16 percent of farms or 13 percent of cultivated land have property titles, whereas 69 percent of all farms or 73 percent of cultivated lands are allocated according to custom. Under the latter arrangement, there is a distinction between the ownership of the means of production and claim to what is produced by these resources. The cultivator may claim all that which he or she produces with only a slight remuneration to the landowner. As a result there are no direct means to improve the agricultural system nor are there peasants without land.

18.   *The two groups which suffer the most from this system of land tenure are the women and the descendants of captives.* The women are doubly disadvantaged because they may only borrow land indirectly through a male, and it is a male's responsibility to distribute land between members of his family. Also, even when women succeed in borrowing land they only cultivate less fertile and smaller areas.

19.   *Land belongs to descendants of the Fulbe who conquered the Fouta Jalon from the original occupants.* These lands are passed on to the eldest son at death or divided among living sons during the landowner's life time. Ex-captives now cultivate lands alongside the Fulbe but their use rights to the land are more restricted than those rights retained by the original owners.

20.   Because of the small size of the parcels, in the Fouta Jalon *most farmers are obliged to borrow land* from their neighbors or parents. As a result, a farmer is never certain of where he will cultivate. The limited rights translate into *restricted tenure security*. Security of holding in turn influences the land user's ability to make long term management decisions and to adopt practices to protect and regenerate natural resources.

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[6]   The Fouta Jalon is a mountainous area covering most of the Middle Guinea. Fisher (1993).

29.   An assessment of the *impact of gender* alone on entry to different segments of the labor market, revealed that *women have a much lower chance of entering wage employment.*[10] The predicted overall probability of working turned out to be lower for women than for men. Even at lower skill levels men have better chances than women. It was estimated that men who have not completed primary education have an 18 percent chance of entering the wage sector of the labor market compared with 0.6 percent for women.

30.   These gender gaps in wage employment are due to endogenous factors linked to the operation of the labor market and exogenous ones related to *parental investment in boys and girls education.* On the demand side of the labor market, there is evidence of barriers to women's employment in the private wage sector. This could be due to the traditional reluctance of many employers to hire women on the basis of the perceived costs associated with maternity and child-rearing. This could also be due to simple biases or stereotyping. *It has been established that in Guinea, graduates from female vocational training have difficulties finding jobs in their fields of training.*

31.   On the supply side, traditional attitudes towards work for women outside the home combined with culturally-conditioned low career aspirations may tend to contribute to the observed outcome. But this needs to be established more firmly.

32.   LIMITED MANAGEMENT CAPACITY. *Given the low level of human capital within the society at large, it is no surprise that the skill level within the civil service is quite low and unable to meet the requirements of the management of a modern market economy.* Furthermore, a Civil Service Reform Management Review performed in 1994 (in collaboration with the World Bank) contains *evidence of a civil service characterized by an incoherent structure and an irrational mode of operations.* The incoherent structure stems principally from the vagueness of the Civil Service Statutes. *This poor specification of the rules of the game creates ample opportunity for those in charge of enforcement to circumvent the code at no penalty.* But even if well specified they might not be followed. The report cites instances where productivity allowances have been granted universally regardless of individual performance, even though the statutes require that this be linked to an annual staff performance evaluation.

33.   CONSTRAINTS TO INFORMAL SECTOR DEVELOPMENT. *The real challenge to the government in Guinea is, of course, to provide employment for the majority of people, in particular the poor, who have too limited skills to operate in the formal wage labor market.* In this respect, the informal sector potentially holds a key to the solution of this problem, particularly in this context of public sector retrenchment imposed by the

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10
     The assessment is based on probabilities of sector participation by sex and education level on the basis of a separate application of a logit model to males and females setting all other explanatory variables to the mean values for the entire sample (i.e. males and females combined). The obtained results thus correspond to sector entry probabilities for a man and a woman with the same characteristics.

9

government is bent on using tariffs to curtail the importation of rice. This seems to be the wrong approach to the problem, as the welfare cost to the poor would be higher than any other potential benefit.

25.   A DISTORTED LABOR MARKET.   The importance of the labor market is underscored by the fact that *in a developing country such as Guinea, most households derive their livelihood only from the sale of their labor services.* This fact underlies indeed the recommendation of labor-intensive economic growth as a fundamental element of a poverty alleviation strategy (World Development Report 1990). Labor mobility is a crucial determinant of whether certain workers will earn a premium on their labor return in the short run. Government policies will affect the way losses and gains associated with labor market adjustments will be shared.

26.   On the basis of a nationally representative sample of 1,728 households living in Conakry in 1990-1991, it was found that, of the 2,565 people surveyed who were engaged in income earnings activities, 24 percent worked in the private wage sector, 24 percent in the public wage sector and the remaining 52 percent were self-employed in household based enterprises. The sample also revealed that non-wage workers earn more on the average than the wage workers. The hourly average earnings were estimated at GNF 347 in the non-wage sector versus GNF 305 for the wage sector.[9] Furthermore, the average worker in the wage sector is likely to be a male with a higher level of education than the average worker in the non-wage sector. *These descriptive statistics suggest labor market segmentation.*

27.   The results from further statistical analysis showed that: (1) age and formal education have a positive relationship with the probability of residing in the wage sector; (2) being female has a very strong negative effect on the probability of selecting the wage sector of employment. Overall, the analysis supports the view that returns to individual characteristics are significantly different in the wage and non-wage sectors. It was also found that *women face high search costs* and other barriers in the wage sector market and will therefore accept more readily available non-wage sector employment at lower expected earnings.

28.   Further there is evidence of *heterogeneity of the urban labor market in Guinea* in the sense that the determinants of earnings are not the same in its different segments. The higher the level of education, the less likely is the person to be self-employed. With respect to the private wage sector, more education increases the probability for a woman to be employed in that sector but it reduces that of a man. In that particular sector, very few women are found in either unskilled jobs or in skilled trades. Furthermore, over half the women are found in professional/managerial or clerical jobs versus 16 percent for men.

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[9]   Mills and Sahn (1996:3).

fact that there is interaction between investments in human capital and the structure and performance of the economy.

39. Past and more recent performance in living standard reveal that a lot remains to be done in order to improve the quality of life for the majority of Guineans and in particular the most vulnerable. Given this objective for public policy, and the fact that overall welfare is fundamentally determined by efficiency and equity considerations in the allocation of resources, the poverty alleviation strategy proposed below is a two-pronged approach which advocates the *formation of social capital* along with the promotion of *broad-based economic growth* in order to create productive opportunities for the built-up stock of capital.

40. As stated above, the government is currently working with UNDP, the World Bank and other donors on the development of a policy framework to foster social development in Guinea. This policy framework will be promulgated in the form of a *"Lettre de Politique de Développement Humain" (LPDH)*. A preliminary version of this document reveals that the proposed framework is no different from the blue print discussed above. In particular, it recommends that growth enhancing policies be pursued both at the macro and sectoral levels to address some structural imbalances in the economy: (a) weak capacity of the private sector; (b) the persistence of macroeconomic disequilibria; (c) the low productivity of the agricultural sector; and (d) the lack of diversification of the economy. On the equity side, the draft letter recommends that the government deal with both *regional disparities* and *gender differentials*.

41. MACROECONOMIC STABILITY. A stable macroeconomic foundation is recognized as a prerequisite for sustainable growth and poverty reduction. Some levels and financing methods of the public deficit may lead to high inflation and the crowding out of private investment. Both of these outcomes would be harmful to the objective of poverty alleviation. Inflation would harm the poor directly while limited private investment would restrict the growth potential and hence the ability to further reduce at least income poverty.

42. In the particular case of Guinea, work done in the context of the Public Expenditure Review reveals that the government has not yet succeeded in developing *a viable fiscal framework*. This stems from the excessive reliance on mining revenues and foreign aid for the financing of public expenditure. Both these sources of financing are deemed very uncertain. *Thus there is a need for the government to diversify its tax base.*

43. *This implies necessarily measures to foster the diversification of the non-mining sphere of the economy which, in turn, cannot be accomplished without a proper strategy for private sector development (including policies to promote the formalization of the informal economy). In the search for a new tax base, it is important that the policy change be progressive (as oppose to regressive) to avoid an undue burden on the poor.*

11

necessities of policy reforms. In Guinea, it is estimated that at least two-thirds of the economically active population are employed in the informal sector.[11]

34. There is evidence that, *on average, poor households derive a higher share of their revenue from independent micro-enterprises located in the informal sector, than from other activities.* This shows that informal sector development has direct implications for poverty alleviation in Guinea. Most micro-enterprises in Conakry (about 73%) involve *commercial activities.* Most are headed by women, generally with less education than their male counterparts, who tend to reside in households with the lowest per capita consumption.

35. The next most important class of enterprises in this sector is that of *small industry.* These tend to be more capital-intensive and headed by men. *These observations suggest that women may be facing some discrimination in the credit market. Such discrimination, combined maybe with the low level of education, makes it hard for them to start small businesses in the non-commercial sector.*

36. There are both individual and environmental constraints to informal sector development in Guinea. *People operating in the informal sector, regardless of gender, are limited by their lower level of education as compared to the general population, particularly those operating in the formal sector.* At the environmental level, it is reported that such development is constrained by *poor infrastructure in transportation and communication.* This, in turn, restricts the expansion of enterprises that may prove locally profitable. There is also a limited access to *formal financial services, and therefore these enterprises cannot borrow for medium to long-term projects.*

Toward a Strategy for Poverty Alleviation

37. BLUE PRINT. The structure of a desirable strategy for overall social welfare improvement and poverty reduction in particular is well known. Its description may be found in many widely distributed World Bank reports such as the 1990 World Development Report on poverty, the 1993 Poverty Reduction Handbook and the 1995 World Bank Contribution to the Social Summit entitled *"Advancing Social Development."* In fact, given the acute limitation of human capacity in Guinea and for ease of reference, the design of a strategy for the country relies more on the *blue print* presented in the latter publication.

38. *According to Becker (1995), a country's standard of living is primarily determined by how well it succeeds in developing and utilizing the skills, knowledge, health, and habits of its population.* This view is consistent with the human development approach adopted by the Government of Guinea in the context of the ongoing Program for Human Development spearheaded by UNDP. Furthermore, this view stems from the

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[11] Walker (1995).

50.   Efforts to enhance the quality of education in Guinea should also include *a reevaluation of the content of existing curricula in terms of their relevance to the revised objectives of the various educational programs*. Given the above considerations, it is recommended that *curriculum reform be aimed at increasing basic competencies in primary and general secondary schools*. This may require that the number of subjects be curtailed and adequate time be allocated for teaching fundamental subjects such as language, mathematics and science. It is desirable that any curriculum be designed and implemented with a focus on outcomes relative to these subjects. *This particularly requires the establishment of performance standards for students and teachers as well as administrators*. It also entails the development of assessment systems to monitor what is taught and learned and how resources are managed to meet agreed upon educational objectives.

51.   Private schooling in Guinea also has much room for expansion. While the government must retain its role in providing education as a basic service, private schools can accommodate wealthier pupils and capture the costs of some infrastructure and additional salaries, freeing public space for poorer students. Also, private vocational training centers have been expanding rapidly in urban areas, and more than 30 currently offer secretarial and managerial training. The higher education sector still requires large-scale reform. Financial and budgeting reform are needed along with rationalization of the remaining institutions of higher education. Continued improvement requires that the government perpetually reevaluates its programs and adapts to the evolving needs of the country.

Implement the Health Sector strategy

52.   The largest health policy problem for the Guinean government is not its sectoral strategy, which is basically sound, but rather the *implementation* of the strategy and the timetable set for its completion.

53.   Focusing on sector quality and quantity, the government must ensure the completion and continued support of its essential drugs policy to standardize the use of basic medicines and to make them available to the public, especially the poor, at a reasonable cost. Attention must also be focused such that training and staff development are in line with the sector's human resource needs. This will require the continued refinement of efforts to improve the curriculum of medical and nursing schools and to provide specialized training courses for newly recruited personnel, as well as continued education for veteran personnel. A rational referral program must also be instituted in order to ensure that the health system treats individual cases at the appropriate level, resulting in both greater efficiency and effectiveness. The completion of this stage would be a prerequisite to the future reform of the tertiary care sector and the country's hospitals.

44. To achieve its equity objectives and promote broad based human capital development, the government is seriously considering the *restructuring of public expenditures* recommended in the current public expenditure review.

45. RURAL DEVELOPMENT. Given that the majority of the people draw their livelihood from the agricultural sector and that poverty in Guinea remains an overwhelmingly rural phenomenon, it is recommended that emphasis be put on rural development. *The government lacks a coherent strategy in that sector.* A sound poverty alleviation strategy necessarily must include a major component consisting of policy and program actions designed to achieve lasting improvements in the quality of life of the rural population. Effective rural development will require measures to increase productivity in both agricultural and non-agricultural activities, and efficiency in the storage, processing and marketing of produce. Increased productivity and efficiency will require availability of inputs, good feeder roads, effective transfer of appropriate technology and adequate research-extension services.

46. Given that small farmers dominate agricultural production in Guinea, policies and programs designed to improve their standard of living and that of other poor rural households (through increased productivity and purchasing power) can be expected to have a significant multiplier effect. An increase in small farmer incomes should stimulate the demand for locally-produced goods and services, thus *strengthening the linkages between farm and non-farm productive activities.* It could also reduce rural migration to urban areas with a beneficial effect on urban poverty.

47. PRIORITIES IN HUMAN DEVELOPMENT. Investments in the social sector should be primarily aimed at: i) expanding access to basic education, with a special focus on women, ii) improving the quality of education, and iii) increasing access (particularly the rural for populations) to essential health services.

Increasing Access to Basic Education and Training with Special Attention to Women

48. The high rate of illiteracy in Guinea suggests that available resources should be redeployed in favor of universal primary education. Attention should be given to both formal and non-formal education. In the formal sector, effective measures are needed to improve pupils' enrollment and retention in the primary schools. Ways must also be found to attract and retrain young drop-outs and adults willing to improve their knowledge and skills through practical or vocational training.

49. *Emphasis should be placed on girls education to reduce existing gender disparities with regard to access to basic education, and priority should be given to rural and poor urban areas.*

would face the challenge of designing, in collaboration with the Guinean authorities, a truly implementable and sustainable strategy for poverty reduction that is commensurate with the existing human and social capacity in the country. *This leads us to the conclusion that, focusing on governance is critical to poverty reduction in Guinea.*

Monitoring

58.   As in many other sectors, the legacy of the First Republic in terms of a national statistical system may be considered disastrous. Whatever statistics may have been available were provided exclusively by government departments and tended to be at variance with observed reality. The reliability of most socioeconomic data was undermined by the repression of private initiative. This led to the development of an underground and parallel economy whose activity could not be captured by the official statistics. Evidence of this statistical problem is clearly presented by the fact that all pages in the World Bank World Tables pertaining to the economic situation in Guinea prior to 1986 are basically blank.

59.   Limited local capacity makes both the sustainability of poverty monitoring and the effective use of data and analyses uncertain. Yet poverty monitoring remains vital, both to inform public policy and as a means of monitoring performance. Therefore, with respect to sustainability, donor support will continue to be necessary for some time. With respect to policy impact, there is a need to learn from past mistakes and build new processes. Experience in other countries suggests that adopting more participatory approaches may enhance the sense of "ownership" and encourage the inclusion of social issues on the agendas of decision-makers.

60.   *There are several ways in which this may be done. Quantitative data collection may be complemented with qualitative surveys to provide socio-cultural data and to give voice to the poor and vulnerable.* A broad range of stakeholders should be involved in both the design of poverty monitoring tools and in the discussion and analysis of collected data. This should help bring social concerns to the attention of policy-makers and contribute to creating greater demand for better policies. But it is not just data and analyses that need to be broadly debated. The same is true for the public policies which the former seek to inform. *Thus it remains critical that the donor community emphasize, in the context of dialogue with government, civil society, and other actors, the importance of placing poverty at the center of government's priorities.*

15

54.   SOCIAL SAFETY NETS. Safety nets are intended primarily for those among the poor who cannot fully participate in the socioeconomic activity of their community. They constitute mechanisms to prevent the vulnerable groups from falling into absolute poverty. However they may also be designed to help the poor reintegrate into the economy. In the particular case of Guinea, *a full picture has not yet emerged as to the identity of appropriate target groups, nor the extent and effectiveness of the traditional safety net.* It is, however, commonly held that the handicapped, old people living alone and homeless children (particularly in urban areas), and some castes in the rural areas are among the most vulnerable. But no statistical evidence is available to guide social planning. Some background reports to the *Lettre de Politique de Développement Humain* also list among the vulnerable small farmers, rural women, the urban unemployed and some micro-entrepreneurs in the informal sector.

55.   At this stage of the Guinean experience, it may be worthwhile investigating the following issues in order to factor the result into the next policy adjustment: (1) What are the target groups and their coping mechanisms? (2) What is the nature and the effectiveness of the current social security system (3) It is widely believed that the traditional system of solidarity is breaking down in the urban areas. What is the extent of this breakdown and is there regional variation involved? (4) What role could be played by intermediate organizations such as NGOs, municipal governments and organized local communities. The institutional capacity of these entities as well as their willingness and ability to work with the central government should be carefully assessed. (5) What are the political factors that would affect the feasibility of such mechanisms?

Implementation Issues

56.   It is useless to design a *strategy* if it cannot be implemented successfully on a sustainable basis. Feasibility and sustainability require political and non-political resources, and have design implications. The fact that the outcome hinges on the interaction between the individual and society implies that there ought to be a clarification of roles. This raises the issue of responsibility of the individual (family, community) and of the state. Role clarification may help with the consensus building so essential for the effective implementation of the strategy. The success of such an *implementation strategy* depends on the soundness of the structure of incentives (social and otherwise), and of the information policy underpinning the whole process. The information policy should ensure wide dissemination of reliable information on the life of society. Fundamentally, the implementation strategy should enable key stakeholders to effectively play their roles.

57.   The implementation experience of policy reforms both at the macroeconomic and sectoral levels suggests that the existing stock of governance capacity may not be up to the task at hand. Could this mean that the perceived risk of capture of the state by some powerful social groups is so great that the government has been unwilling or unable to go all the way in *making poverty reduction* the vision upon which to base its necessary autonomy vis-à-vis such groups'. If this were to be the case, then the donor community

these reached their full capacity in 1980 overall growth started to decline, following the trend of the non-mining economy.

1.3   The development strategy driven by the public sector led not only to poor aggregate growth but also to some undesirable structural changes in the economy. Increasingly, private-sector activities moved into the informal sector, conducting its business through parallel channels. While the official sector relied on mining exports for its income and foreign exchange, the informal sector depended more upon clandestine exports and remittances from abroad. The agricultural incentive structure led to a virtual cessation of production for official markets. Thus Guinea went from being a major exporter of agricultural products to a major exporter of minerals and a net food importer.

1.4   The poor performance of the para-statal sector, combined with the flight of private activities from official channels, led to a deterioration of public finances. The situation was exacerbated by increasing budgetary subsidies to public enterprises. The financial position of the government was further squeezed by external imbalances stemming from poorly designed investment projects that failed to yield the expected returns to meet the underlying debt. This made it increasingly difficult for the government to meet its necessary investment in education, health and physical infrastructure.

1.5   A military coup in 1984 brought a new regime to power and the establishment of the Second Republic. This new regime initiated a public policy reversal both in political and economic activities. In late 1985, the new government launched the *Economic and Financial Reform Program* (PREF).[3] This program was intended to lead to a radical restructuring of the Guinean economy through a significant reduction of the role of the state in the productive sphere of the economy, and an increasing reliance on the private sector to lead future socio-economic development. The new program was seen as the only solution to the extreme failure of centrally planned economic development in Guinea. The PREF was implemented in two phases. Phase one included: (1) a large-scale devaluation to realign the exchange rate; (2) liberalization of internal and external trade by removing impediments such as price controls and state marketing; (3) restructuring the banking and financial system by closing state banks and promoting commercial banking; (4) improving public sector management through privatization, liquidation, and restructuring of para-statals as well as civil service retrenchment; (5) restructuring of public investment to improve productivity; and (6) commercial and institutional reforms that would promote private sector savings and investment.[4]

1.6   The second phase of the PREF was meant to consolidate phase one reforms. It focused on: (1) strengthening local capacity in economic policy management; (2) removing sector-specific bottlenecks; (3) improving the legal and institutional

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[3]   Programme de Réformes Economiques et Financières. See World Bank (1990a:10).

[4]   Arulpragasam and Sahn (1993a:66-67).

1. INTRODUCTION

1.1 Guinea is considered *one of the poorest* countries in Africa, although its per capita GDP, currently estimated at US$ 532, is slightly above the average for Sub-Saharan Africa (US$ 520). As Table 1.1 indicates, the United Nations Report on Human Development has for several years ranked this country last among some 160 countries. Yet the country is *richly endowed* with agricultural, mineral and energy resources. Depending on the chosen poverty line, on the basis of data from an integrated household survey (IHS), 40 to 57 percent of the entire population may have lived in poverty in 1994. Life expectancy at birth is estimated at 45 years. And roughly 77 percent of the adult population is considered illiterate. This situation is mostly blamed on past policy failures and on the limitations of the current policy stance.

Table 1.1 Guinea: Selected Human Development Indicators (UNDP)

Year	Life Expectancy at Birth		Adult Literacy Rate (%)		Real GDP per capita (PPP $)		HDI Rank (Rank/Total)
	Guinea	Sub-Saharan Africa	Guinea	Sub-Saharan Africa	Guinea	Sub-Saharan Africa	Guinea
1991	43.5[a]	51.8	16.8[b]	45	910	1,180	158/160
1992	43.5[a]	51.8	24[a]	51	602	1,187	160/160
1993	43.5[a]	51.8	24[a]	47	501	1,200	173/173
1994	43.9[c]	51.1	26.9[c]	51	500	1,250	173/173

[a] 1990, [b] 1985, [c] 1992

Source: UNDP Human Development Report 1991, 1992, 1993, 1994

1.2 The history of the modern state in Guinea starts with independence from France in 1958. The development of the country since that date may be broken into two major periods, depending on the policy stance of the regime in power. Prior to 1985, the socioeconomic policy framework aimed at modernizing and industrializing the country. Its implementation was based on a *command and control approach* and led to very poor economic performance and a dismal social situation. It is estimated that real per capita GDP declined by 11 percent between 1960 and 1965, and then by about 1 percent between 1965 and 1970.[1] From 1960 to 1974, GDP per capita declined 4 percent.[2] Growth was estimated at 3.5 percent between 1975 and 1980. This positive growth was essentially due to the opening of some major new bauxite operations. And as soon as

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[1] Arulpragasam and Sahn (1994:53).

[2] World Bank (1990a:1).

do so requires that we trace the social welfare implications of both past and current developments in a manner that helps clarify the desirability, the feasibility and the sustainability of the proposed reforms.

1.11   The analysis in this report is based on the *collective choice approach* to social evaluation. This framework choice is motivated by the World Bank's declaration that sustainable poverty reduction is its overall objective and a benchmark in its performance as a development institution. This declaration is equivalent to a choice of a social evaluation rule (or social welfare function). A social welfare function is a device that allows translation of individual preferences or conditions into social ones. It is structured by the underlying value judgments. In the context of a poverty assessment, such value judgments may stem from the view that *more is better*: (1) at the level of the individual this means more of "a good life" is better; (2) at the societal level, more equality is preferred to less. These conflicting demands create policy trade-offs between efficiency and equity. Thus, given two states of social well-being, as represented by different distributions of the living standard, the one with less poverty is preferable, *ceteris paribus*. Given the uncertainty created by value judgments, sensitivity analysis is extended to the choice of social evaluation functions. In this context, both Atkinson's and Foster-Greer-Thorbecke's frameworks are applied to the same data set.

1.12   Furthermore, the collective choice framework is equally suitable for the discussion of *governance issues*. In this context, a social state may be characterized by a configuration of diverging private interests. The existing governance capacity may then be interpreted as a social welfare function that aggregates these private interests into a desired public policy outcome.

1.13   The report is structured as follows: the second chapter briefly reviews past performance in the aggregate living standard. Chapter three describes the structure of inequality and welfare in 1994, as well as the distribution of poverty. Chapter four concentrates on the welfare implications of economic management, focusing on macroeconomic issues and rural development. Chapter five examines issues related to human capital development. Chapter six discusses the design of an implementable strategy for sustainable poverty reduction.

19

framework; and (4) developing a social policy protective of those most vulnerable to the effects of policy reform.[5]

1.7   The reform program produced encouraging results in its first 5 years (1986-1990). A key component of this reform was a substantial devaluation of the national currency in early 1986. This devaluation, which brought the official exchange rate in line with that of the parallel market, also marked a shift from a fixed to a managed float regime. This was a very important step in view of the fundamental role played by the exchange rate as a key determinant of a country's competitiveness. As a result of this improved incentive structure, export value increased about 16 percent between 1986 and 1989. Most of this increase emerged from the non-mining sector. During the same period, the economy grew about 4.5 percent in real terms—about 2 percent in per capita terms. This growth was more concentrated in small-holder farming and in the service sector. Furthermore, inflation dropped significantly from 72 percent to approximately 28 percent.

1.8   The second phase of the reform program proved more difficult than the first and coincided with *political developments* that may have been a complicating factor. Starting in 1991, the implementation pace slowed down significantly. Some positive results were achieved, however. Several non-viable projects were deleted from the Government's public investment portfolio, while the distribution of petroleum, water and electricity was privatized. The inflation rate was reduced from 19.4 percent in 1990 to 7.1 in 1993 and further in 1994 to about 4 percent. Non-mining revenues increased from 4.6 percent of GDP in 1988 to about 7.4 percent in 1994.

1.9   On the political front the new-found openness of the system allowed events that revealed to some extent the *limited governance capacity* within the country.[6] Free press, strikes and demonstrations were authorized in 1990. In 1991, a new constitution was adopted and multi-party presidential elections were held in 1993. Within this new context the government has had to deal with increasing social unrest. Public-sector salaries were doubled in 1991 as a result of violent demonstrations by public sector employees. Additional social unrest, characterized by increasing criminality, posed a direct challenge to governmental authority and created a state of uncertainty that led to a significant reduction in private investment. As a consequence, economic growth faltered. The growth rate fell from a yearly average of 4 percent in the second half of the 1980s to 2.4 percent in 1991. The current economic growth rate is estimated at 4 percent.

1.10   The above story raises the fundamental issue which concerns this report: given that the country is basically on the right track for economic policy reforms, *there is a need to carefully assess the adjustments in the current policy stance in order to achieve a significant improvement in welfare in general and in poverty reduction in particular.* To

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[5]   Ibid.

[6]   Governance capacity is taken here to mean the ability of the state apparatus to craft and enforce the *rules of the game* and to arbitrate effectively any conflict that may arise either over the rules themselves or their enforcement (Frischtak 1994).

Box 1.1 Assessing Living Standards

Approaches to measuring living standards depend essentially on the importance attached to individuals' own judgments about their well-being, as well as on the range of determining factors included in the living standard indicator.

In the context of the *welfarist* approach, indicators of the standard of living are based solely on individual preferences, or utility. Given the fact that utility is unobservable, the implementation of this approach must rely upon proxy measures. The assumption, then, that consumers purchase the best bundle of affordable goods implies that, for a group of individuals having the same preferences and facing the same market constraints, their ranking according to the level of expenditure is equivalent to their ranking according to the utility level. This approach tends, in practice, to favor measures based only on the goods and services consumed by households, taking into consideration their size and demographic composition. Thus, the total consumption expenditure on all goods and services suitably normalized for differing market conditions, household size and composition is the preferred measure of well-being (Ravallion, 1994:8). Strictly speaking, this is a flow measure of *economic welfare* and tends to ignore such factors as non-market goods and *non-material human conditions* whose value is not translated into consumption behavior, and intertemporal or life-cycle issues.

The *non-welfarist* approach pays little attention to individual preferences. Assessment of well-being is instead founded on certain basic achievements. This may involve for instance the ability to afford adequate nutrition, clothing and housing. In this context, as well as in the welfarist approach, the command of an individual over goods and services remains an important instrument affecting well-being.

Sen's *capability approach* to the assessment of living conditions distinguishes *functionings* from *capabilities* (1987, 1992). Functionings are a set of interrelated activities and states (doings and beings) achieved by an individual, whereas capabilities define the opportunity set for the individual to achieve functionings. As Sen explains, the capability set is analogous to the budget set in consumer theory and reflects the person's freedom to choose from possible livings (1992:40). He proposes that this is a general approach to the evaluation of social arrangements. Such arrangements would be assessed, on the basis of individual functionings, with respect to the extent they enable people to achieve the functionings they deem valuable.[10]

If an evaluation of a social arrangement must be based on the extent to which the individually achieved functionings reveal the ability of the arrangement to make people function best, then the State should focus its efforts on the formulation and implementation of policies that enhance individual capability to function well. In this context, one may distinguish between *internal* and *external capability*. The former relates to mental and physical abilities of an individual and are enhanced by health and education. *External capability is defined by the circumstances surrounding the exercise of internal capability.* Such circumstances may be viewed in terms of socioeconomic institutions (defining the rules of the game) and the quality of the ecological environments. These factors may impede or enhance the achievement of functioning corresponding to attained internal capability.

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[10] In this context, Sen (1992:52) insists that choosing must be seen as part of living and that "doing something" is not equivalent to "choosing to do it and doing it." Consequently, any achievement must be assessed in light of the freedom implied by the capability set.

21

2. PAST AGGREGATE PERFORMANCE IN LIVING STANDARD

CHOICE OF LIVING STANDARD INDICATORS

2.1   Maintaining and improving a population's living standard may be considered the ultimate objective of socioeconomic policy and a fundamental expectation of those who are governed.[9]   The standard of living is, then, the measure used to assess the performance of a socioeconomic system.   An individual's reward for participation in the life of society is reflected in his standard of living.   This multidimensional concept, however, is not easily measured in practice.

2.2   In the context of this poverty assessment, we adopt the view that an individual's standard of living hinges crucially on both *collective and individual choices*.   These choices simultaneously determine the opportunities offered by the socioeconomic system as well as the individual's willingness and ability to identify and exploit them.   The individual's ability is largely a function of accumulated human capital, while the set of opportunities is dependent on the *efficiency* and *equity* characteristics of the socioeconomic system.   Household expenditures are our main indicator of the living standard.   This measure will be supplemented, however, by such other information (indicators on health, literacy, access to social and economic infrastructure, etc.) as will help ascertain the scope of the capability set.

2.3   The purpose of this chapter is to develop the welfare implications of the socioeconomic developments that were briefly presented in the introduction.   The analysis is based on both social and economic indicators of well-being.   At the aggregate level (i.e., society as a whole) achievements in such things as longevity and literacy are considered the determinants of capabilities at the household or individual level (see Box 1).

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[9]   Sen, et al. (1987:vii). [Note also that this is in fact a policy implication of Aristotle's conception of a socio-political arrangement (Nussbaum, 1986:3). According to this view, the goodness of a social arrangement may be judged on the basis of the wellness of the lives led by the participants in such an arrangement. Thus every policy-maker should strive to make people capable of choosing to live well.]

Figure 2.1 Guinea: Performance in Longevity and Infant Survival (Kakwani's Improvement Index for Selected Years)
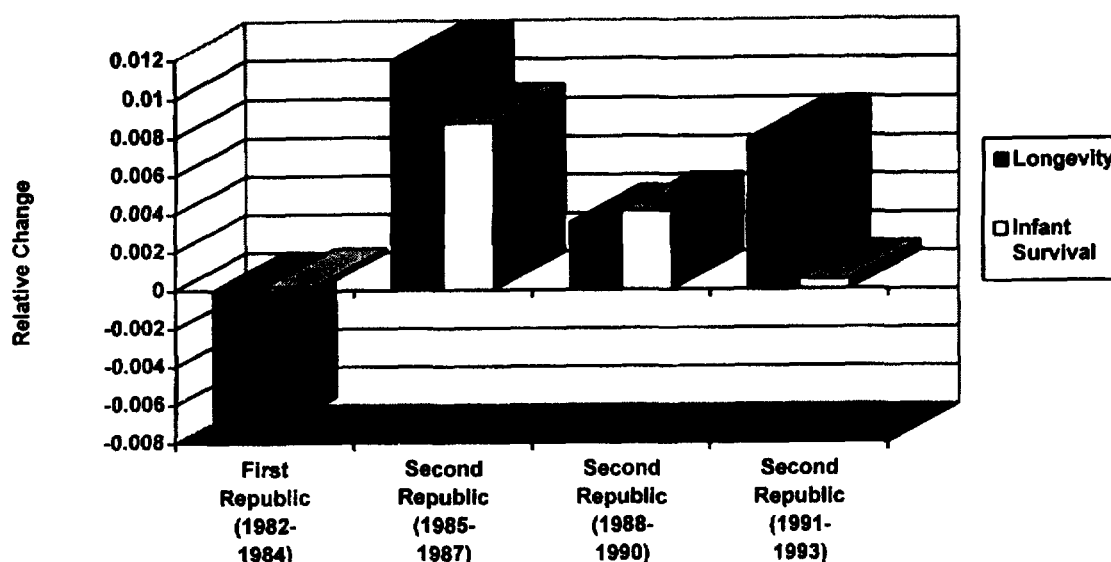
2.7   Available data show that life expectancy in Guinea at birth was estimated in 1960 to be 34 years. It reached roughly 40 years in 1982, after which it declined to 39.3 years in 1984. The entire period of 1985 to 1993 shows a *slight* improvement in life expectancy from 41 to 45 years. This improvement may not be as significant as indicated by the magnitude of the improvement index.

2.8   To understand more fully how negligible this improvement was, it should be noted that both Guinea and Mali had achieved roughly the same level of per capita GDP in 1960 ($410 and $400 respectively) and very nearly the same life expectancy at birth, 34 for Guinea and 35 for Mali. [13] Yet from 1971 to 1981, Mali shows an improvement of 2.7 points in life expectancy and 2.2 points in infant mortality (Kakwani 1993:317). Furthermore, the apparent improvement in longevity in Guinea is in fact accompanied by a deterioration of living standards when measured by child survival.

2.9   The outcome with respect to education is no better (see Figure 2.2). The literacy rate in Guinea inched from 9 percent in 1965 to only 17 percent in 1985. This disappointing figure resulted in spite of the fact that the First Republic had vowed to achieve universal education. Indeed, free education was guaranteed to all. Yet despite dramatic increases in enrollments from 1958 through the early 1980s, Guinea lacked both the human and financial resources to secure adequate and relevant training.

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[13]   In terms of purchasing power parity (1985 PPP US$) (World Bank 1994:225).

2.4   The assessment of this topic for Guinea is based on Kakwani's Achievement Index and the associated Improvement Index (1993). The Achievement Index is consistent with the view that the higher the living standard the harder it is to improve upon it. It is a function of the observed value of the living standard indicator (e.g. longevity or literacy), a lower and an upper bound, where the indicator varies from zero at the lower to one at the upper bound.[11] Kakwani proposes the following bounds for life expectancy, infant mortality and literacy rate:

Table 2.1 Bounds for Some Living Standard Indicators

|	*Lower Bound*	*Upper Bound*
Life Expectancy	30	80
Infant Mortality	300	5
Literacy Rate	10	100

Source: Kakwani (1993:316)

2.5   The application of the above framework[12] to infant mortality data uses the definition of infant survival rate as the number of infants per thousand live births per year who survive at least until the first birthday. This indicator is equal to 1,000 minus the corresponding infant mortality rate.

2.6   Figure 2.1 illustrates the evolution of the improvement index (i.e., change in the achievement index) for life expectancy and infant survival for selected subperiods within the sample's 1982 to 1993 period in Guinea.

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[11]   More specifically, the indices obey the following axioms: (1) the achievement index equals one when the living standard indicator moves from its minimum and approaches its upper bound; (2) the achievement index is a decreasing function of the initial value of the indicator and an increasing function of its end value; (3) the improvement index must be positive, negative or zero according as the standard of living is increasing, decreasing or showing no change; (4) the improvement index in a given period is the sum of individual improvement indices for the sub-period; (5) the index should give more weight to improvement occurring at higher levels of living standard (because this is a more difficult task); and (6) the index should allow meaningful comparisons of performance of any two countries at different levels of standards of living. Furthermore, the index has the structure of a constant elasticity utility function where the elasticity is interpreted as inequality aversion. The values reported here are consistent with an inequality aversion equal to unity.

[12]   The reader may wonder why bother with this framework instead of using untransformed social indicators. The key motivation here is methodological uniformity. Indeed, what makes Kakwani's framework attractive is the fact that it makes explicit the value judgments underlying the evaluation. Furthermore, it is consistent with Atkinson's approach to to social welfare assessment which we use in the next chapter.

Figure 2.3 Guinea: Evolution of Per Capita Consumption (Base Year 1986)
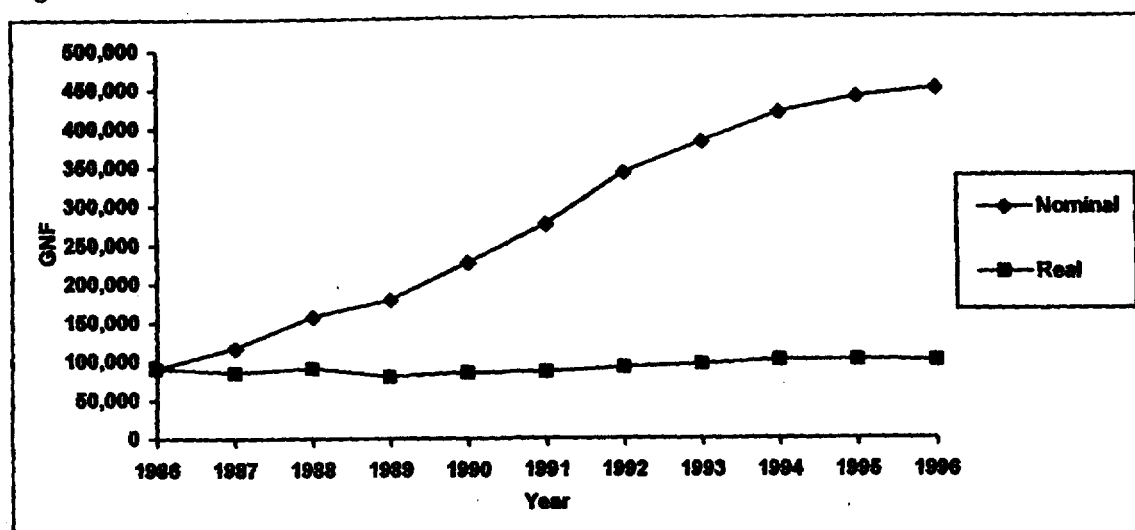
2.11   To check the sensitivity of the results, three poverty lines have been used.[15] Two of these have been set by the government and a third was established by Cornell University in 1990 within the context of a study on welfare in Conakry.[16]

2.12   Both the government and Cornell rely in their approach on the concept of a food poverty line. All three lines are anchored to a minimum nutritional requirement of 2,000 kilo-calories per person per day. The cost of food providing this level of energy intake is then calculated and adjusted to account for non-food requirements. According to the food share approach (which both the government and Cornell use), the adjustment is made by dividing the result by the share of food in the total expenditures of those households deemed to be poor.[17]

2.13   Cornell used the expenditure pattern of the lowest 30 percentile of Conakry's population in 1990. This corresponds to a poverty line of GNF 20,800 per capita per month for that year. For the purpose of the present analysis, this line has been further adjusted to account for inflation and is expressed in yearly increments. Thus, for 1994, this poverty line is roughly equal to GNF 390,876.

2.14   . The government of Guinea has instead chosen to base its adjustment of the food line on the expenditure pattern of the poorest 20 percent of the population. For the purpose of comparison, it is important to note that the data have been corrected to account for inflation during the survey period. Furthermore, all regional expenditure

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[15]   Note that a poverty line is in fact a cost-of-living index in the sense that it measures the cost of a reference consumption bundle below which an individual or household is considered poor (Ravallion, 1995, Lecture on Economics of Poverty).

[16]   See del Ninno (1994) or Arulpragasam (1994).

[17]   For more on this approach, see Ravallion (1994:33-34).

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Figure 2.2 Guinea: Changes in Educational Achievement (Kakwani's Improvement Index for Selected Years)
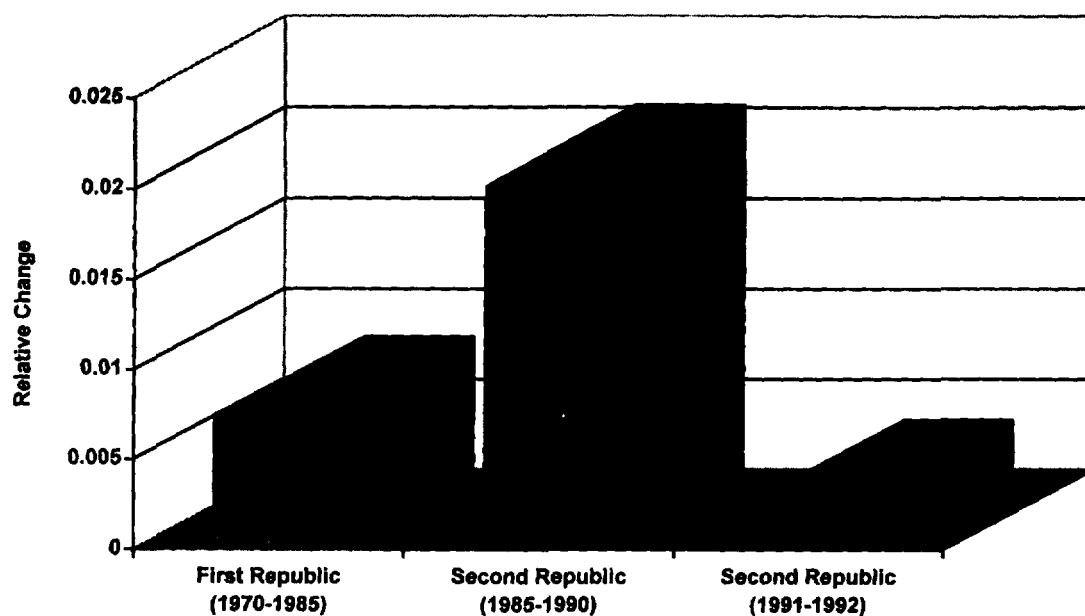

IMPACT OF ECONOMIC GROWTH ON INCOME POVERTY

2.10   This section's assessment is based on per capita private consumption as reported by the national accounts. This is analogous to using per capita expenditures drawn from a household survey as an indicator of well-being. Figure 2.3 shows the evolution of per capita consumption both in nominal and in real terms for the period 1986 to 1996.[14] Poverty indices are estimated on the assumption that the Lorenz curve associated with the distribution of the per capita expenditures revealed by the 1994 Integrated Household Survey may be considered as a good approximation of inequality in the distribution of living standards during the decade under consideration. It is also assumed that economic growth has occurred in a distributionally neutral manner.

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[14]   The figure for 1996 is a projection.

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Figure 2.4 Guinea (1986-1996): Poverty Incidence (Multiple Poverty Lines)

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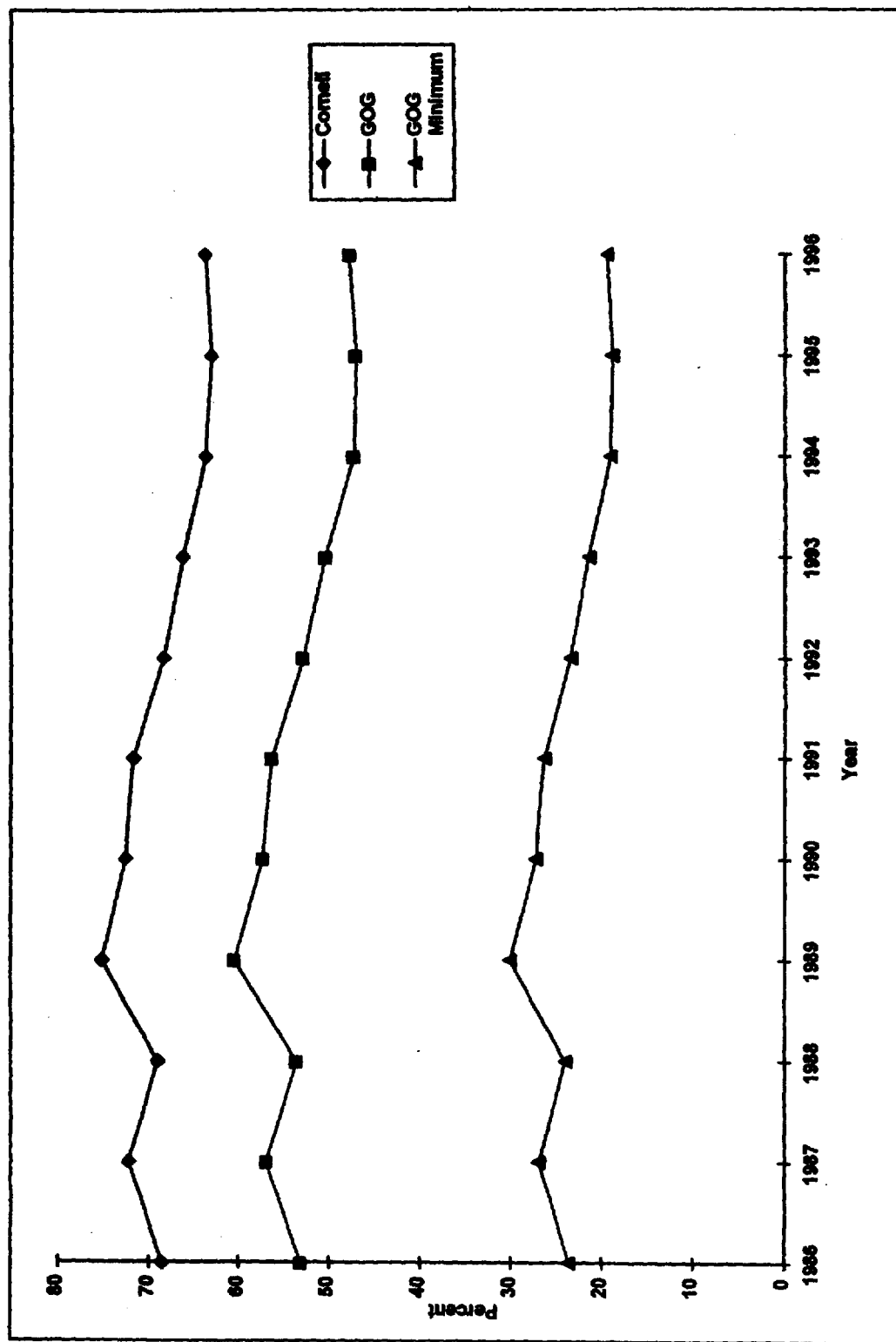
been adjusted to account for regional price differences. In particular, Conakry is used as the base region. Given these considerations, the government proposes an upper poverty line of GNF 293,713 and a lower one of GNF 172,283. The latter is, in fact, the estimated cost of achieving the minimum daily requirement of 2,000 kilo-calories.

2.15   Based on these poverty lines, three measures of poverty have been computed indicating *incidence, intensity* and *severity* respectively. Incidence relates to the proportion of the population living below the minimum standard, whereas intensity reflects the extent to which the well-being of the average poor person or household falls below the poverty line. Lastly, severity relates to the degree of inequality among the poor. Figures 2.4 and 2.5 show the results for poverty incidence based on the three poverty lines.

2.16   Figure 2.4 suggests that the incidence of poverty may have increased from 1986 to 1989, tending to decrease somewhat thereafter. This same pattern was also observed across the three poverty lines for intensity and severity. Given Guinea's history of reform, these results may reflect the up-front costs of adjustment, while their associated benefits are only to be enjoyed down stream, provided a sustained effort. Thus it appears that *economic policy reform in Guinea had a positive impact on income poverty*. Two issues arise immediately in connection with this conclusion: (1) how significant was this impact; and (2) what were the associated social costs? Answers to these questions are significant to the design of policy reforms.

2.17   To assess the real significance of the impact of growth on poverty (assuming distributional neutrality), we compare the observed growth in real GDP with that required to keep the number of poor at a constant level.[18] Figure 2.6 shows these results. The actual growth record for the decade 1986 to 1996 is, overall, below target. The only exception to this observation seems to be associated with the results corresponding to the government's lower poverty line. In this case, observed growth exceeded the target rate for 1988 while matching it in 1993 and 1995. These results suggest that the actual growth record may not be the fundamental cause of the observed declined in poverty. We are left with two possibilities: either the trend is not statistically significant, or the decline in poverty is due to other factors such as trade liberalization that may have rendered certain of the items consumed by the poor less expensive. This remark leads us to the issue of the welfare implications of past adjustment policies.

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[18]   Such estimates rely on the assumption that the share of the national income consumed by households also remains constant. On this see Jayarajah et al. (1996:71). It can be shown that the growth elasticity of the headcount index is equal to the ratio of the growth rate of the number of poor (corrected for the overall population growth) to the grwth rate of per capita income. Other things being equal, the higher this elasticity the lower the rate of economic growth necessary to keep the number of poor constant.

Figure 2.5 Guinea (1986-1996) Estimated Number of Poor (Multiple Poverty Lines)

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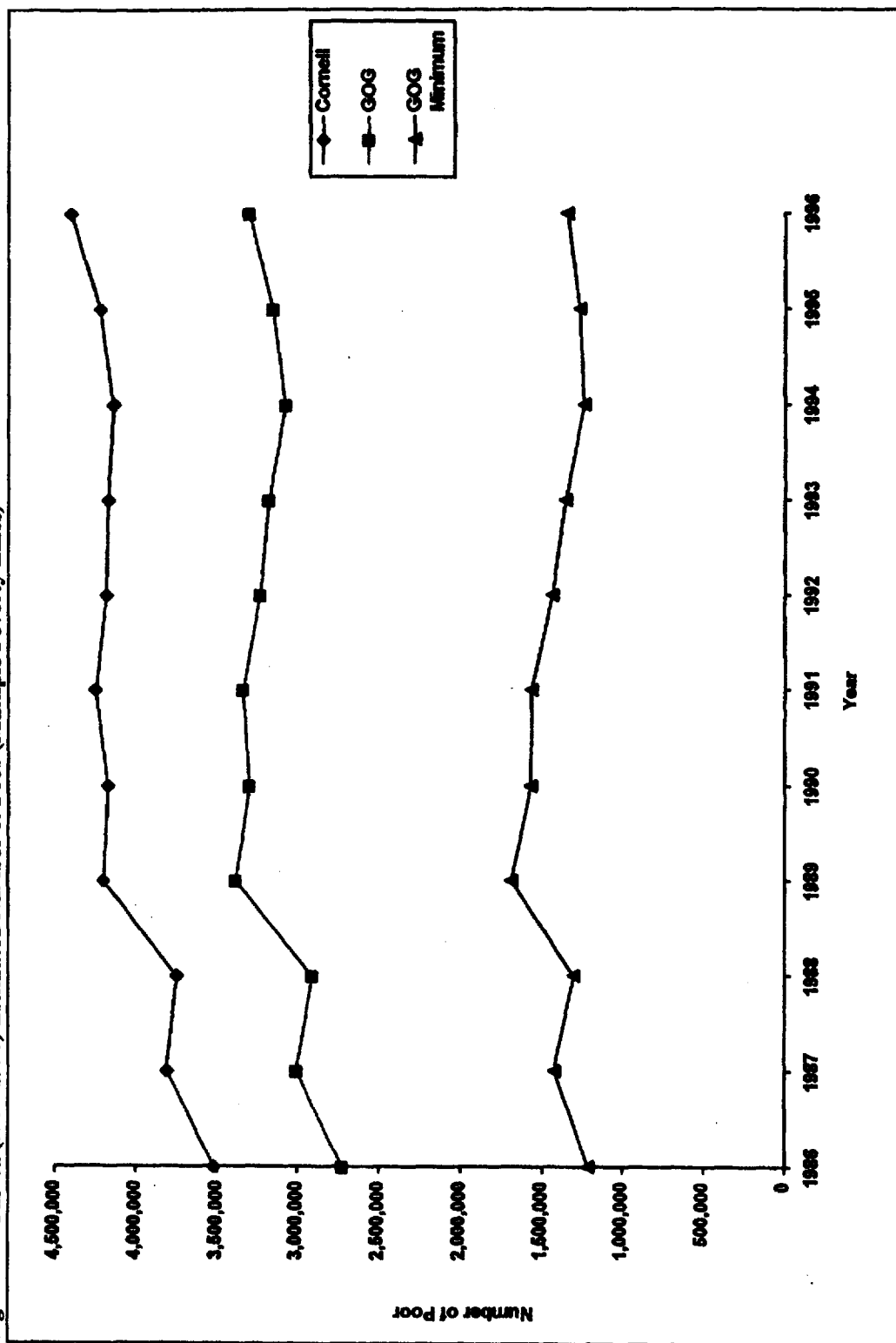
Welfare implications

2.19   This liberalization produced significant effects on the domestic food market in terms of *availability* and price, thus impacting the welfare of various consumer groups. Arulpragasam and del Ninno report that these reforms were followed by a rapid increase in the volume of food imports, particularly rice, a staple food and major crop in Guinea. At the national level, rice availability augmented from 50 kilograms per capita per year between 1980 and 1982 to 70 kilograms between 1989 and 1990. This increased availability meant that on average since 1986, consumers had access to rice that was approximately 30 percent cheaper than locally grown rice.

2.20   Arulpragasam and del Ninno also report that in Conakry from 1990 to 1992, imported rice accounted on average for 60 percent of all starchy food consumed per capita and 84 percent of the total rice consumption. For poor households it was estimated that imported rice accounted for more than 68 percent of starch consumption. In terms of the combined imported staples such as rice and wheat, it was found that these items accounted for 77.4 percent of the total starchy food consumed on average in Conakry and 84.5 percent of starch consumption by the poor. It was also found that for poor households (the poorest quintile), the expenditure share of imported rice was 12.3 percent versus 2.4 percent for the most affluent quintile.

2.21   In terms of energy intake, imported rice turned out to be the cheapest source of calories in town. This commodity accounted for 32 percent of caloric intake among all households and 42 percent of caloric intake among the poor.

2.22   The large household budget share associated with rice imports implies that we should expect significant income effects associated with changes in their price. This income effect would then tend to dominate the substitution effect, leading to an inverse relationship between the price of imported rice and the consumption of such other items in the consumer budget as different grains, roots and tubers as well as other non-food items (Arulpragasam and del Ninno, 1996). It is also to be expected then, that policies causing an increase in the price of imported rice will depress the demand for many local non-tradable goods due to this dominance of the substitution effect by the income effect.

Policy Lessons

2.23   The availability of cheaper imported rice has been considered by policy makers as a threat to national food security. As a result, a 10 percent tariff was placed on rice in 1990. Import tariffs on most other food items were raised from 2 percent in 1986 to 10 percent in 1988 and then 20 percent in 1990. The tariff on rice was increased in 1992 from 10 to 20 percent, while tariffs on other food items were augmented from 20 to 30 percent. There are proposals pending for additional tariff increases. The attraction of this policy instrument is that local production is expected to increase and thereby raise rural real incomes and provide an easy source of revenue for the government. An important issue must then be addressed: How desirable is such a course of action?

Figure 2.6 Guinea: Comparing Observed Growth to that Required for Poverty Maintenance
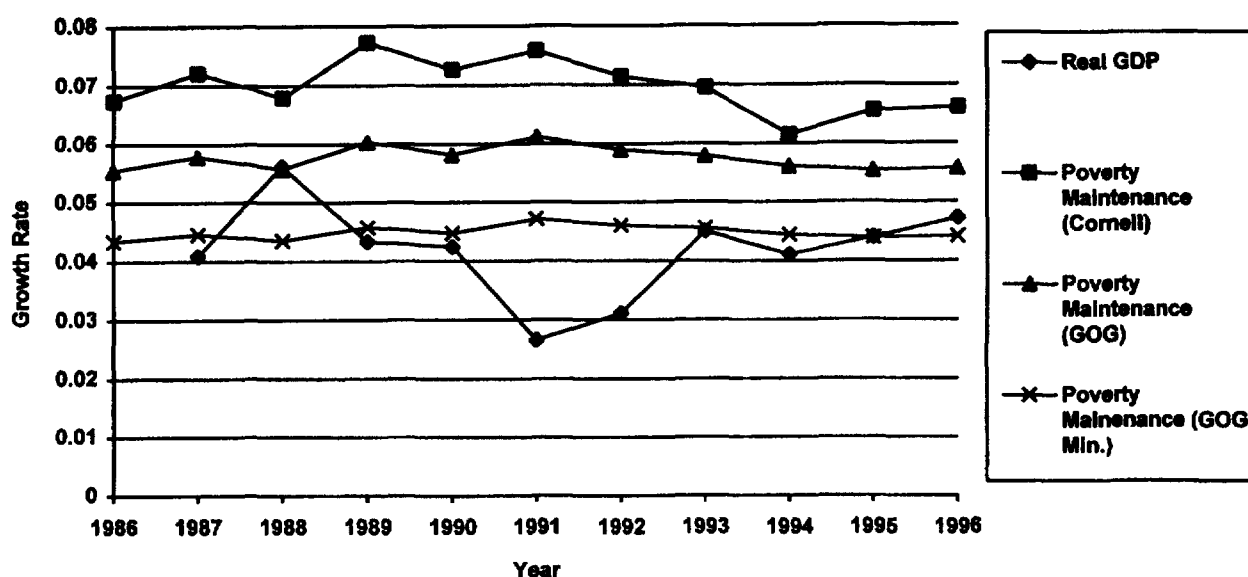
WELFARE IMPLICATIONS OF SOME PAST ADJUSTMENT POLICIES

Trade *liberalization* and public sector *retrenchment* are two key components of many structural adjustment packages. These policy packages have fundamentally aimed at enhancing both the *competitiveness* of the economy and the *performance* of the public sector. Political and social risks are associated with the implementation of these programs, however, and an assessment of these risks must rely essentially on the welfare implications of such policies.

Trade Liberalization [19]

Nature of the Policy reform

2.18   The international trade liberalization initiated by the government in early 1986 entailed both a shift in the exchange rate regime from a fixed rate to a more flexible one (similar to a managed peg) and the removal of trade barriers such as tariffs and import licenses. The initial step in this process produced a marked 17-fold devaluation in the local currency. This occurred between the last quarter of 1985 and the first quarter of 1986, roughly aligning the official exchange rate with the parallel rate. The state monopoly on import and export activities was lifted in 1984 while import licensing was abolished in 1986.

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[19] This section draws on the findings of a study by Jehan Arulpragasam and Carlo del Ninno entitled "Do Cheap Imports Harm the Poor? Rural-Urban Tradeoffs in Guinea (See David E. Sahn, ed. Economic Reform and the Poor in Africa, Oxford University Press, 1996).

revealed the following structure of public employment: 70,989 people employed directly by the civil service; 17,111 assigned to para-statals, state banks or as "détachés" in mining companies; 12,700 in military service; and 2,000 unclassified.

2.28   The program imposed a hiring freeze, mandatory retirement for civil servants aged 55 or those with more than 30 years of service, and ended guaranteed employment for university graduates. Optional early retirement and voluntary departure packages with substantial benefits were offered to induce workers to leave the sector. Compensation packages were also designed to "sweeten" the deal for those forced out of their jobs.

Results

2.29   Another census taken in 1989 revealed that 32,639 workers had been removed from the public sector payroll since 1985. Wages were also increased dramatically during the course of the program to boost the morale and the productivity of those remaining. In 1989, measures to link pay to performance translated into a real increase in remuneration of about 23%. In 1991, however, under pressure from a national strike by government employees, the nominal base salary was increased by 145 percent—far exceeding the rise in inflation.

Some Welfare Implications

2.30   Mills and Sahn studied the labor market transition paths followed by the retrenched workers in terms of factors such as earnings differentials between sectors, severance payments, gender, age and a dummy variable to account for the 1986 economic reform.   They found that females are about twice (1.94) as likely as their male counterparts to leave unemployment in any given period to enter the non-wage sector.[22] In fact, females are three times (2.8) more likely than males to enter this sector of employment. Based on this analysis, over 90 percent of females are expected to leave unemployment and enter non-wage employment within three years their departure from the public sector. The figure for men is estimated at 59 percent. This phenomenon could be due to the fact that *women face high search costs and other barriers* in the wage sector market and will therefore more readily accept available non-wage sector employment at lower expected earnings.

2.31   In a similar study published in 1995 by Mills and Sahn, the per capita *consumption of former public sector departee households was compared to that of the* general population in 1990. It was observed that those individuals forced out of public sector employment were particularly vulnerable, especially when no alternative employment could be found.   Between 35 and 44 percent of such individuals fell,

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[22]   Mills and Sahn (1996:16).

2.24 Arulpragasam and del Ninno employ a regionally focused multi-market model to demonstrate that "the welfare benefit to urban and rural households associated with cheaper imported rice is greater than the real income loss of a production decrease."[20] Thus the gradual reimposition of tariffs after liberalization is harmful to both urban and rural welfare. It was also established that it would be possible to generate an equivalent amount of revenue from a tax on a commodity other than rice (i.e., sugar) at a lesser cost in terms of poverty and calorie intake among the poor. Additionally, *any policies tending to lower marketing and transformation costs of agricultural produce will enhance welfare*.

Public Sector Retrenchment [21]

2.25 Civil servants in Guinea constitute, as in many other countries, an important political base for the regime in power. Their alienation could easily cripple the implementation of many policy reforms. *This makes public sector retrenchment a particularly tricky operation*. Large-scale layoffs may spill over to private labor markets. Furthermore, there may be *equity concerns* to be addressed in the particular case of *women*, who may face more discrimination in these private labor markets. Finally, retrenched workers may bear a great cost of the labor market adjustment, when finding alternative sources of employment.

2.26 Throughout the 1970s, public sector employment grew at a rate of about 7 percent per year. By 1979, the state apparatus was employing some 140,830 people out of a population of 4,400,000. This implies that most of the budget was allocated to operating costs. In an attempt to exert fiscal control, nominal wages were frozen between 1965 and 1980, remaining constant in real terms between 1980 and 1984. In 1985, the average civil servant earned an equivalent of US$ 18 per month. The deteriorating employment conditions in the public sector, coupled with lack of mechanisms to ensure accountability, led to *rent-seeking behavior*, corruption and an increase in the cost of economic transactions.

The Nature of the Retrenchment Program

2.27 The entrenchment program sought to: (i) reduce public sector employment by about 25,000 persons; (ii) craft a new pay and benefit system; (iii) sharpen the skills of the remaining employees; and (iv) increase efficiency and accountability through institutional reform. A base survey conducted between December 1985 and April 1986

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[20] Arulpragasam and del Ninno's (1996) model is calibrated to Lower Guinea because the data for this region are considered the most reliable and because it is in this region that the pervasiveness of imported food is greatest and the issue of imported rice competing with the local rice is the most relevant.

[21] This account is based on Mills and Sahn (1996) and Mills and Sahn (1995).

3. THE CURRENT DISTRIBUTION OF ECONOMIC WELFARE

POLICY TARGETING AND DATA DISAGGREGATION

3.1   The enactment of a policy is bound to involve a differential distribution of costs and benefits among socioeconomic groups. The desirability of such a policy depends on how the gains of the winners are balanced against the losses of the losers. Its feasibility however hinges crucially on the actual weighing of those gains and losses within the prevailing socio-political system. Therefore *the assessment of the distribution of economic welfare within a society is an important step in the analysis of both the desirability and feasibility of a policy proposal.* When the social objective is focused on poverty reduction, then a picture of the distribution of the standard of living at one point in time provides a benchmark against which to assess future progress. It also helps identify *target* groups or commodities that may need special treatment in the design and implementation of poverty alleviating policies.

3.2   It is important to note that the level of aggregation of the available information has significant implications in terms of policy design. This is clear in the case where the only information available is in terms of indicators such as GDP per capita, life expectancy, etc. If a country is classified as poor on the basis of such indicators, then poverty alleviation policies would have to shoot in the dark, as it were, with the hope of reaching some poor in the process. With respect to the provision of basic social services, for instance, universal provision will be the only way to proceed. This makes obvious the necessity of a *disaggregated analysis* that involves the identification of and discrimination among the would-be beneficiaries of socioeconomic policies. The issue then is, as Sen puts it, *"how far to push discrimination and where to stop"* (1995:15).

3.3   The answer to the above preoccupation lies in the costs and benefits of *targeting*. In principle the argument for targeting is based on cost-effectiveness of policy implementation. This is to be understood as a matter of maximizing the poverty alleviation benefits associated with an accurately targeted policy from a given cost (Sen, 1995:12). However, there are both direct and indirect costs associated with the design and the implementation of a targeted policy. Such costs stem from the need for identification and policing and from the fact that such a policy may create incentives for beneficiaries and others to adjust their behavior. The more accurate the targeting the costlier. Thus in the search for characteristics by which to classify individuals (or households) it is desirable to consider in priority those that may be difficult to adjust

depending on whether they are redeployee or retiree, into the lowest 30 percent of the distribution of per capita consumption.

2.32   Indeed, for those who left the public sector before 1990 and succeeded in finding alternative employment, only 32 percent resided in the lowest 30 percent of the distribution, as compared with 38 percent for those who could find such employment. This confirms the difficulties in designing and implementing a retrenchment program where there is no meaningful alternative in the private sector. *The situation must be even more dramatic when the departees are endowed with so little human capital to the point that they cannot use their compensation package to create employment opportunities for themselves and others.*

Basically a social evaluation rule is an expression of the value judgments underlying a comparison of social states. This box discusses in a little more detail for the interested reader the structure of Atkinson's rule.

The Atkinson approach to social evaluation is based on the following value judgments. Assuming that income (or expenditure) is used as an indicator of living standard, then we take it to be the case that (1) households do not differ significantly in their non-income characteristics (homogeneity); (2) the individual is the best judge of her or his well-being (individualism); (3) income provides utility to income units; (4) more income is preferred to less; (5) it does not matter socially who receives which income (symmetry); (6) overall well-being is equal to the average income utility across individuals (additivity and separability); (7) rich-to-poor income transfers are a good thing in the sense that they increase overall welfare (inequality aversion).[24]

It is interesting to note that the requirements that more income be preferred to less and that rich-to-poor transfers improve social welfare allows the social welfare function to handle the conflict between social preference for equality and that for efficiency.[25]

The bedrock concept in this framework is that of *equally distributed equivalent income.* This represents the level of per capita income which, if enjoyed equally by every individual, would provide the same level of social welfare as the current distribution for some choice of utility function. In this report, we will call this the *equally distributed equivalent expenditure.* The numerical value of this indicator turns out to be equal to the mean multiplied by one minus the Atkinson index of inequality.

It is worth noticing that the mean of the income distribution is the maximal value of the equally distributed equivalent income. Furthermore, for a given level of inequality aversion, the difference between the mean income and the equally distributed equivalent one is interpreted as the per capita cost (in terms of welfare loss) of inequality.[26] Dividing this difference by the mean of the distribution, we get the Atkinson index of relative inequality.

Note that the tradition of judging the socioeconomic performance of a country on the basis of per capita GDP is consistent with Atkinson's approach with no aversion to inequality.

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[24]   See Lambert (1993a:207-213).

[25]   Jenkins (1991:24). In this context, social welfare functions that are consistent with the above value judgments are known as individualistic additively separable symmetric and inequality-averse social evaluation functions (Lambert, 1993a).

[26]   This measure is analogous to a measure of risk aversion. In that context the measure would stand for what a risk averse player would be willing to pay for a sure thing in exchange for a risky promise with equivalent expected pay-off. Thus we take this to represent the maximum value (in terms of the chosen living standard indicator) that an inequality averse society is willing to sacrifice in exchange for a more equal distribution but socially equivalent to the original one (Jenkins 1991:25).

(such as gender characteristics and age) and those that lead to the identification of broader groups (such as the region of residence).

3.4   For the purpose of this analysis, we focus on geographical, gender and literacy dimensions of the underlying population. Some consideration will also be given to household size.

CHOICE OF SOCIAL EVALUATION FUNCTIONS

3.5   A fundamental feature of the social choice approach underlying the analysis in this report is the *aggregation* of *individual conditions* into a *social state*. In the particular context of welfare analysis, this becomes a matter of aggregating *individual living conditions* into an indicator of *social welfare*. Such an aggregation is performed on the basis of a social evaluation rule or a *social welfare function*. The structure of such a function is determined by the *value judgments* underlying the evaluation exercise. Given that we have chosen the distribution of some indicator of the living standard (per capita expenditure) as a social state indicator, many of the value judgments used here imply that different weights are to be assigned to different segments of the distribution of the living standard. Two classes of social evaluation functions are used in this analysis. The first class bases welfare assessment on the entire distribution of per capita expenditure. This includes both Atkinson frameworks (1970, 1983). The second class relies on a truncated distribution and includes the FGT family of poverty indices which are technically analogous to a social welfare function (Kanbur et al. 1995:92).[23]

3.6   All these approaches involve the use of an *inequality aversion parameter* which encapsulates some or all of the underlying value judgments. In the case of the first group of approaches, the higher the value of the aversion parameter the more weight the evaluation rule assigns to the poorest individual (or group). In the particular case of the FGT poverty indices, value judgments are imbedded in both the poverty line and the parameter of inequality aversion among the poor. Furthermore, the approaches chosen here all lead to indices that may be interpreted in terms of abbreviated social welfare functions. An abbreviated social welfare function is basically written as a function of two basic characteristics of a distribution of the living standard: the *mean* and the *inequality*. The structure of the selected welfare criteria is explained in Boxes 3.1 through 3.4.

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[23]   Kanbur et al. (1995). In the same context it is worth noticing the following statement by Yitzhaki (1996:10), "The Foster, Greer and Thorbecke (1984) index of poverty is related to Atkinson's (1970) index of inequality in the same way that Sen's index is related to the Gini coefficient."

Figure 3.1 Guinea (1994): Regional Distribution of Land Area, Population and Household Expenditure
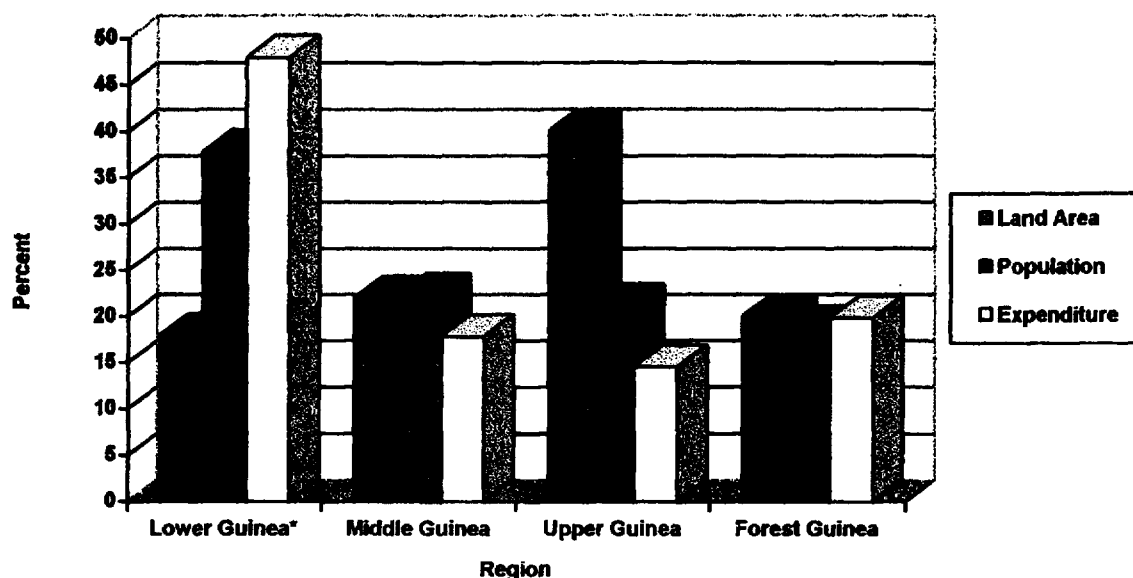
3.8 Regional Inequality: In the context of the 1994 Integrated Household Survey, Conakry has been pulled out of Lower Guinea to form a separate region. Figure 3.2 reveals the Lorenz structure of the regional distribution of per capita household expenditure. According to this figure, only Conakry and the Forest region have a share of expenditure higher than their respective share of the total population. This suggests that there may be significant regional inequality in Guinea with a preliminary indication that Conakry and the Forest region might be the most favored, and Upper Guinea the least favored of all regions.

3.7   *General Description:* Guinea is typically divided into four natural regions (see distribution in Figure 3.1):[27]

(i)   *Lower Guinea* (or coastal Guinea) covers about 18 percent of the national territory, is mostly inhabited by the *Soussou* and accounts for about 38 percent of the 1994 total population. This region includes *Conakry*, the capital city, which has a population of about one million inhabitants.

(ii)   *Middle Guinea,* also known as the Fouta Djallon, represents 22 percent of national territory, and is home to roughly 22 percent of the total population, which is predominately *Peuhl (Fulani).*

(iii)   *Upper Guinea* is a savanna area covering 40 percent of the total land area but accounting only for about 21 percent of the population and is predominately *Malinke.*

(iv)   The *Forest* region covers about 20 percent of the national territory and accounts for about 19 percent of the population. This population is made up of several small ethnic groups such as the *Toma, Manon, Kissi* and *Guerze,* collectively known as the *Forestiers.*

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[27]   This account relies on information from both the 1994 Integrated Household Survey and the 1991 Priority Survey or *Enquêtes sur les Informations Prioritaires (ESIP), Ministère du Plan et des Finances.*

3.10   Figures 3.3 and 3.4 show the ranking of natural regions in Guinea on the basis of intraregional inequality measured both by the extended Gini coefficient and Atkinson's index of inequality. Box 3.2 explains further the nature and structure of the extended Gini coefficient.

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[28]   Relative indices of inequality are generally symmetric, responsive to transfers and scale-invariant. Indices of relative inequality are reduced if the Lorenz curve shifts inward, and unaffected if the Lorenz curve does not change.

[29]   The extended Gini is akin to the Atkinson Index based on the concept of equally-distributed equivalent income. This is a level of per capita income which depends on the inequality aversion parameter and is such that, if given to every individual, the resulting distribution would be socially indifferent to the initial one.

[30]   Lambert (1993b).

[31]   Lerman and Yitzhaki (1984).

Figure 3.2   Guinea (1994):   Structure of the Regional Lorenz Curve
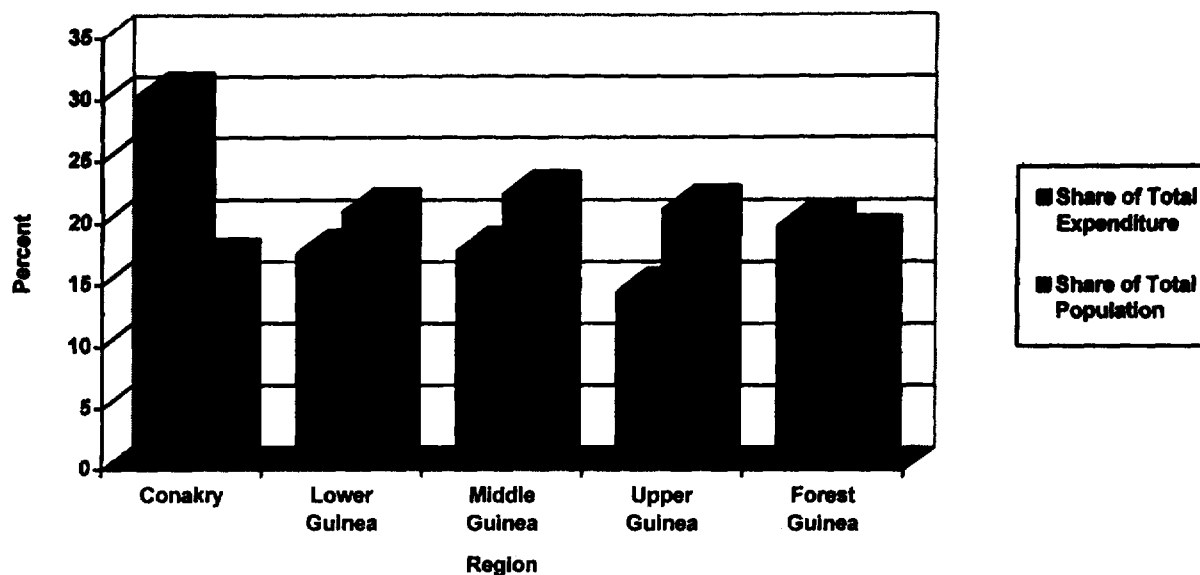
3.9   Given that a Lorenz curve is merely a device describing relative inequality in a distribution and that the mean and the population size of such a distribution cannot be retrieved from the information contained in the Lorenz curve, it follows that any ranking of these regions in terms of relative inequality will depend on the underlying value judgments, and any welfare ranking will need to take into consideration both the size and the inequality dimensions of the underlying distribution.

Figure 3.4   Guinea (1994): Regional Inequality (Atkinson's Index)
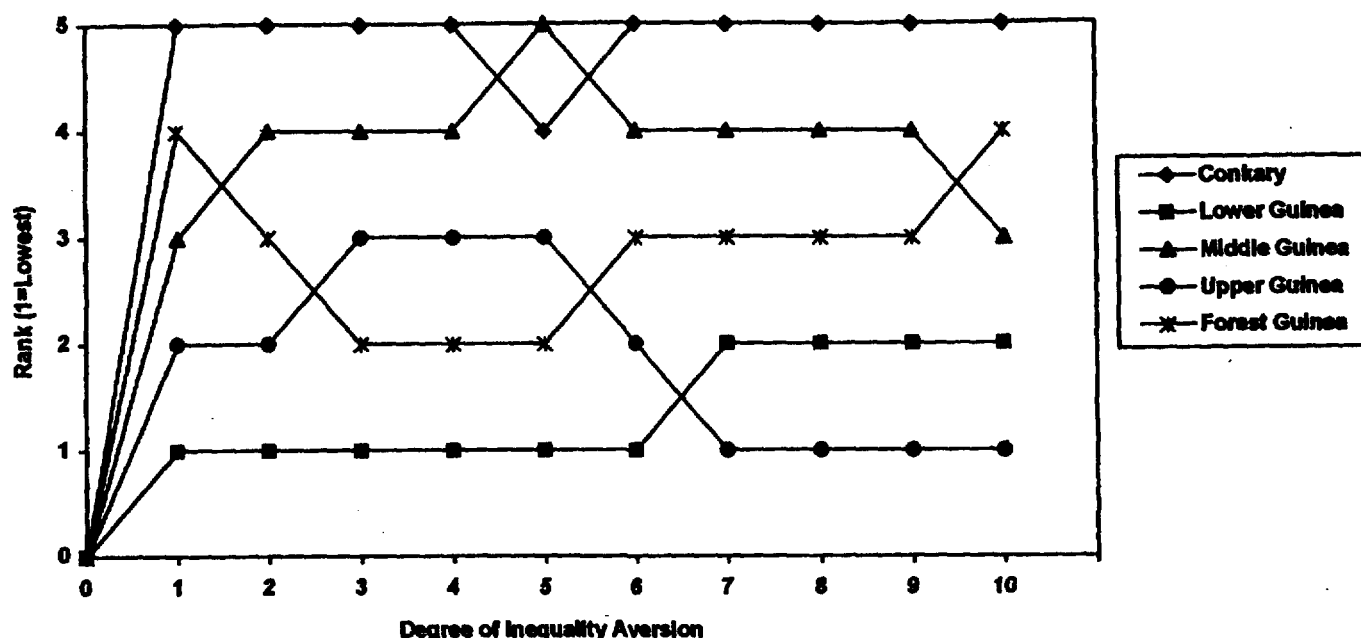
3.13   Table 3.1 presents results about urban and rural inequality on the basis of Atkinson's index. The results reveal that the global index stands at 24 percent when aversion is equal to one. This means that for the chosen value judgments, only 76 percent of total expenditure needs to be distributed equally to achieve the same level of welfare implied by the current distribution. In other terms, current inequality implies a 24 percent loss in social welfare. Note that the ordinary Gini coefficient is equal to 45 percent. This indicates a significant amount of inequality in the distribution.

Table 3.1   Guinea (1994): Urban vs. Rural Inequality (Atkinson)

| | Inequality Aversion | | | | | |
Global Index	1	2	3	4	5	6
National	0.241	0.388	0.488	0.559	0.610	0.649
Urban	0.226	0.373	0.483	0.572	0.643	0.697
Rural	0.173	0.295	0.387	0.457	0.511	0.553
Inter Group Inequality	0.041	0.053	0.052	0.044	0.033	0.023
Intra Group Inequality	0.200	0.334	0.436	0.515	0.577	0.625

Source: 1994 IHS

3.14   The table also shows that, regardless of the degree of inequality aversion, urban inequality is higher than rural inequality. Furthermore, the contribution of the intergroup and intragroup components to total inequality also depends on the aversion parameter. Intergroup inequality accounts for about 17 percent of total inequality when the aversion

43

Figure 3.3   Guinea (1994): Regional Inequality (Extended Gini)

Rank (1=Lowest)

Degree of Inequality Aversion

0   1.01   2   3   4   5   6   7   8   9   10

—♦— Conkary
—■— Lower Guinea
—▲— Middle Guinea
—●— Upper Guinea
—✱— Forest Guinea
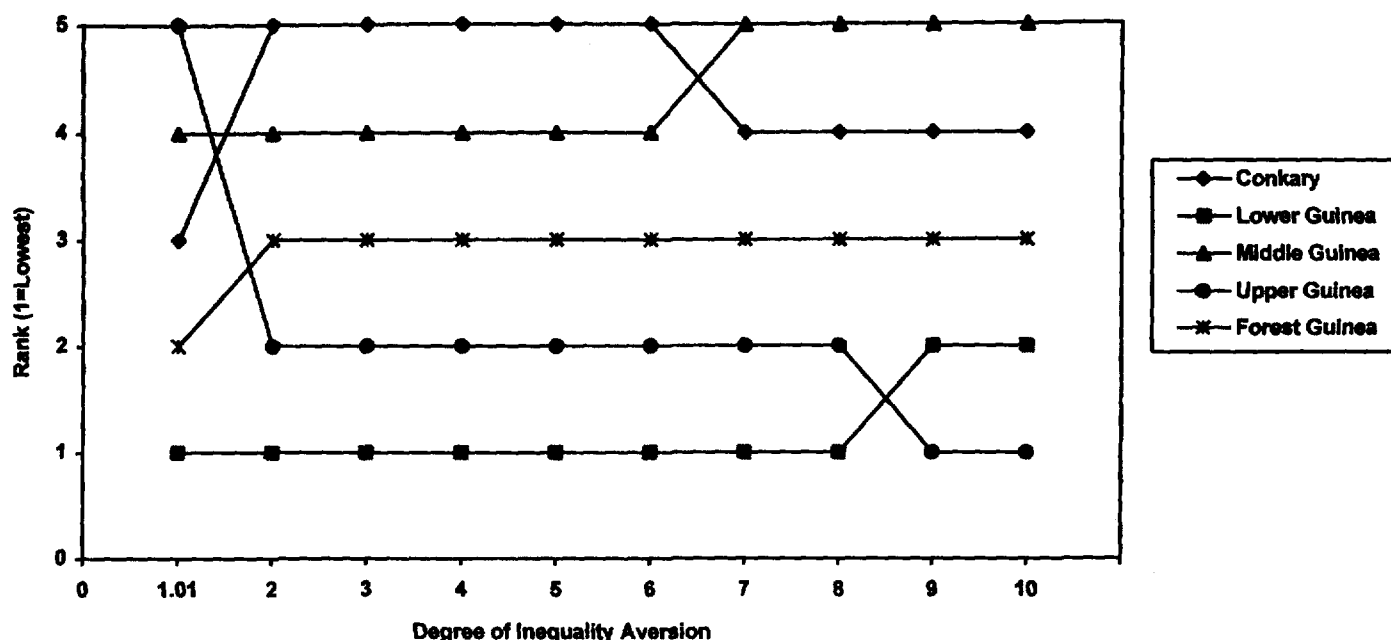
3.11   On the basis of the ordinary Gini (i.e. when the aversion parameter is equal to 2), Figure 3.3 reveals that Conakry is the region with the highest inequality in the distribution of per capita expenditure. Lower Guinea has the least inequality. Middle Guinea, the Forest and Upper Guinea are ranked second, third and forth respectively. It is to be noted that this ranking remains constant on a wide range of choice of the aversion parameter. Indeed there is a reversal at the top only after the value of six and at the bottom only after the aversion parameter has reached 8.

3.12   Figure 3.4 presents a ranking of the regions on the basis of intraregional inequality as expressed by the Atkinson Index. This figure shows more frequent reversal in regional ranking according to the choice of the degree of aversion to inequality. Atkinson (1970:260) has found that when the aversion parameter in his framework is equal to one then, the ranking of distributions by his index is closer to the one achieved by the ordinary Gini coefficient. This result is confirmed by Figure 3.4 which shows that, when the aversion parameter is equal to one, the regional ranking is almost the same as the one obtained on the basis of the extended Gini for a degree of aversion equal to two.

Figure 3.5   Guinea (1994): Welfare Comparisons (Equally-Distributed Equivalent Expenditure by Region)
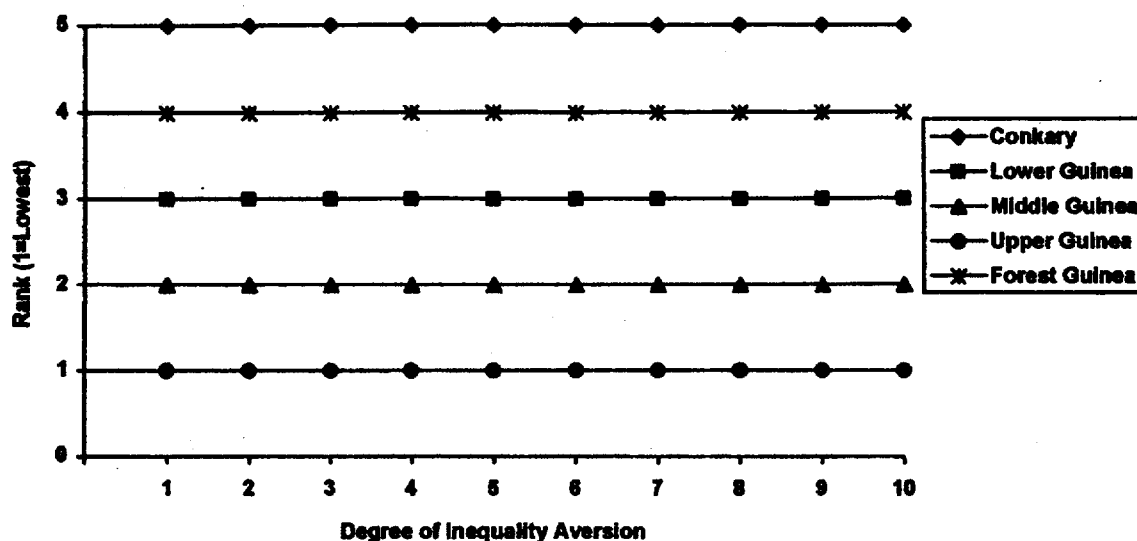
Regional Poverty

3.16   Focusing now on poverty, it is interesting to notice that, on the basis of figure 3.6, the ranking of the regions for all three poverty lines and levels of aversion to inequality among the poor remains the same as the one based on the EDE.[32]   *In this context it is quite revealing to note the correspondence between the choice of a poverty line and that of the aversion parameter within the Atkinson's framework.*

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[32]   The levels of aversion associated with Figure 3.6 have an ordinal interpretation. The headcount index corresponds to 1, the poverty gap index to 2, and the square poverty gap index to 3.

parameter is equal to one. This declines to about 3 percent as the focus on the poorest group increases. At the same time intragroup inequality increases from 83 to about 97 percent. This suggests that, with respect to the urban/rural split, intragroup inequality is more important than intergroup inequality in accounting for total inequality.

Box 3.3   Decomposability of Atkinson's Index of Inequality

In a special sense, the Atkinson index is additively decomposable between intergroup and intragroup inequality (Donaldson 1995). Jenkins (1991:32) explains that an inequality index is *additively decomposable by population subgroups* if it is such that: (1) having sorted the population exhaustively into mutually exclusive groups, the overall inequality may be computed from only the number of members, the mean, and the inequality in each and every subgroup; (2) an increase in inequality in one subgroup leads to an increase in the overall inequality; and (3) the overall inequality can be written as the weighted sum of intragroup inequality plus a term representing a between group inequality calculated on the basis of mean incomes and group size. The Atkinson index has this property when the mean is replaced by the *equally distributed equivalent share*. This idea may explained as follows.

Consider the following three distributions: (a) the actual distribution of expenditure; (b) the distribution where each individual receives the equally distributed equivalent expenditure of his subgroup (there is no intragroup inequality in this case); and (c) the distribution where everybody receives the overall equally-distributed expenditure. Note that all these three distributions yield the same level of social welfare. In other terms, going from (a) to (b) removes intragroup inequality *welfare neutrally* from the original distribution. From (b) to (c) intergroup inequality is removed welfare neutrally. Also, moving from (a) to (c) removes the whole inequality at once (welfare neutrally).

Welfare Comparisons

3.15   Inequality comparison in the context of welfare assessment provides only a partial picture of the situation since total welfare is determined by both the size and the inequality of the living standard distribution. Figure 3.5 presents the ranking of regions in terms of the *equally equivalent distributed expenditure* (EDE). On the basis of this figure, it is clear that, regardless the chosen value judgments in terms of inequality aversion, *Conakry and the Forest region are the best off while Middle and Upper Guinea are the worst off.*

Figure 3.7   Guinea (1994): Incidence of Poverty by Region

Legend:
- ■ Conakry
- ■ Lower Guinea
- □ Middle Guinea
- ▨ Upper Guinea
- ■ Forest Guinea
- ■ National

X-axis (Poverty Line): GNF 390,876 | GNF 293,713 | GNF 172,283

Y-axis: Percent
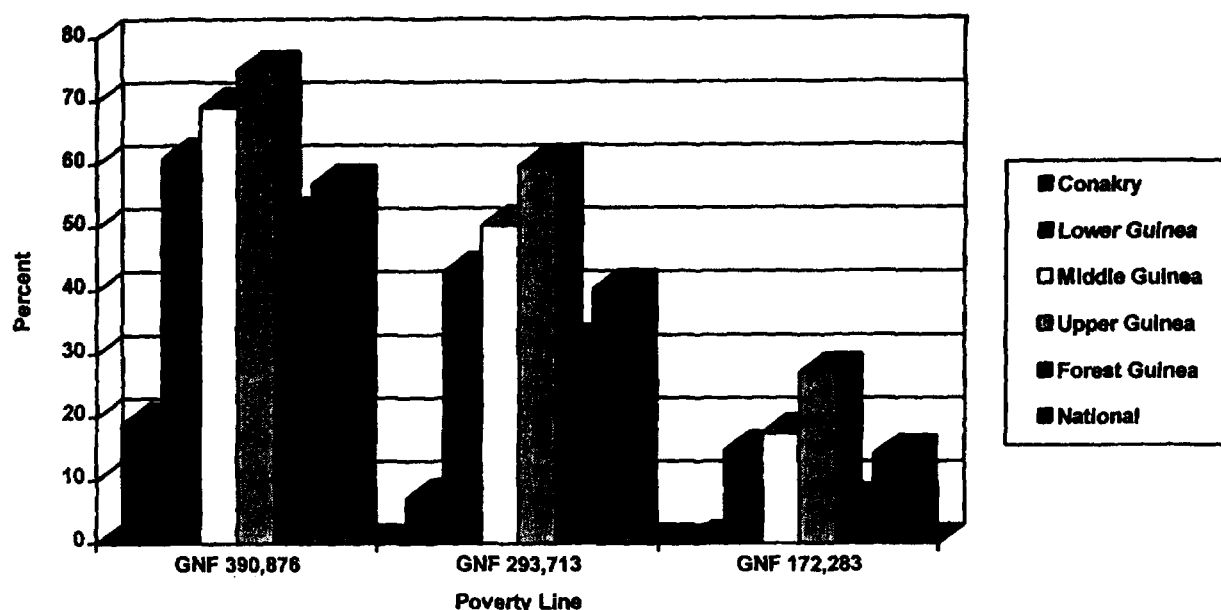
Box 3.4   The Structure of Foster Greer Thorbecke Poverty Indices

Within the FGT framework, individual poverty is measured as a function of the individual poverty gap. This involves a parameter summarizing our *value judgments* in terms of inequality aversion among the poor. On the basis of the chosen poverty line (a choice that also involves value judgments), negative poverty gaps are set equal to zero.

Aggregate poverty at the society's level is equal to the following weighted average of individual gaps. This defines a class of poverty indices that: (1) are *additively decomposable* along a population profile; (2) satisfy the monotonicity axiom (i.e. the gap increases as income decreases); and (3) indicate an increase in poverty if *ceteris paribus*, the income of a poor household is reduced or there is a pure transfer from a poor household to a richer one.[34]

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[34]   Additivity ensures sub-group consistency. That means if poverty increases in any sub-group of the population without decreasing elsewhere, then aggregate poverty also increases. In this context, aggregate poverty may be written as a weighted average of subgroup poverty with the weights equal to the population share of each subgroup.

Figure 3.6   Regional Poverty (FGT Index)
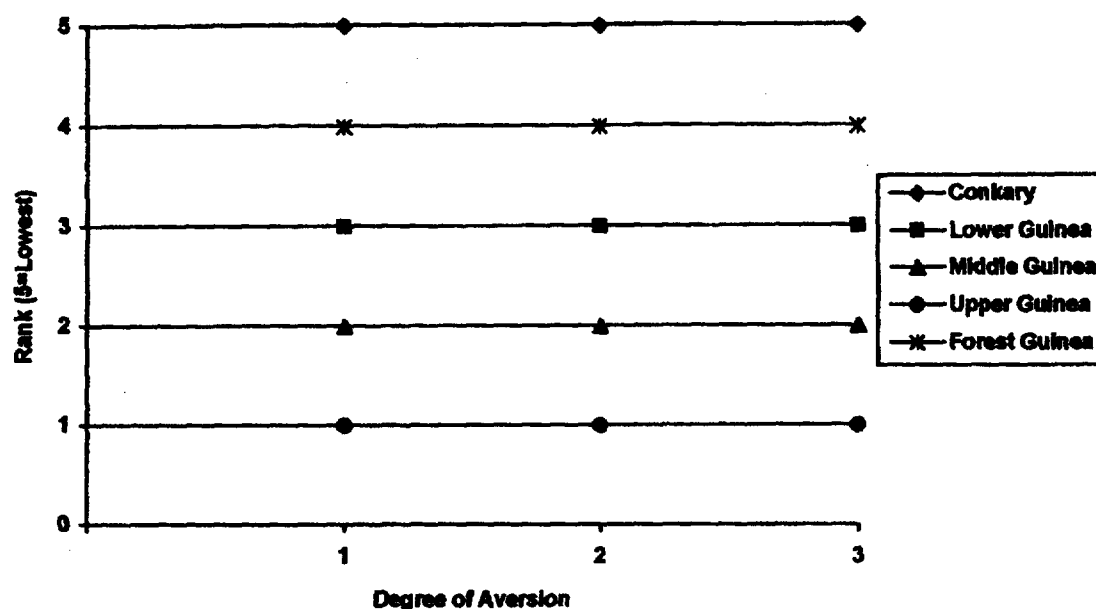
3.17   Other things being equal, a poverty line may be regarded as an equally distributed equivalent living standard. This stems from the fact that the poverty line is a commodity bundle that, if given to everybody in the society, there will be no more poverty for that period of time. *Under this interpretation, we note that the Government's poverty line of GNF 293,713 corresponds to a value of about 2 for the Atkinson parameter of aversion to inequality.*[33]   For this level of aversion, the welfare loss of inequality in the distribution climbs to about 39 percent.

3.18   Figures 3.7 through 3.9 give a more detailed picture of the regional distribution of poverty according the three selected poverty lines and considering *incidence, intensity* and *severity*.

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[33]   The exact value is 1.94425. The Government lower poverty line of GNF 172,283 corresponds to a level of aversion of 5.6572 while the Cornell line of GNF 390,876 is associated with a degree of aversion equal to 0.67124.

Box 3.5   The Normative Content of The Foster Greer and Thorbecke Poverty Indices

Poverty orderings according to an index have both a descriptive and a normative content. We now consider the normative content of poverty comparisons made on the basis of the *FGT* class of indices. We will first note that these indices are structurally equivalent to social welfare functions in the fundamental sense that the social condition is inferred from a weighted average of individual poverty gaps. The distribution of these poverty gaps may be taken as an indicator of a social state. Furthermore, the value judgments underlying the evaluation process are embedded in the poverty line and the aversion parameter.

Poverty comparisons made on the basis of the headcount index depend entirely on the chosen poverty line, but given the uncertainties surrounding the estimation of living standards and poverty lines it would be useful to have a feel of the robustness of poverty rankings prescribed by a particular measure. Suppose then we would like to compare two different distributions of living standards A and B with respect to poverty incidence as measured by the headcount ratio. Plotting, for each distribution, all possible values of the poverty line along the horizontal axis and the associated values of the head-count index on the vertical axis yields the *poverty incidence curve* (Ravallion, 1993). This curve is in fact the cumulative distribution function. Each point on the curve reveals the percentage of the population with a standard of living below the level measured on the horizontal axis. If, in the relevant range of the welfare indicator, the distribution curve pertaining to A lies nowhere above that associated with B, then regardless of the poverty line chosen, we must conclude that poverty is lower in state A than in state B. In other terms B dominates *A* according to the *first-order dominance test.*

What are the implications of first-order dominance for poverty orderings made on the basis of the poverty gap index? If the first order dominance condition is met, can we still conclude that poverty in state A is less than in state B according to the poverty gap index? The answer is yes because the poverty gap measures the area under the poverty incidence curve divided by the poverty line (Ravallion, 1993:126-129). Therefore, if the poverty incidence curve A lies nowhere above curve B, then the area under A will be no greater than the area under B. Likewise, for values of the poverty aversion parameter at least equal to two, it can be shown that the poverty measure is a function of the *poverty severity curve* defined as the area under the poverty deficit curve.

It can be shown that the nested structure of the above indices and associated curves implies that the first order dominance condition reveals poverty rankings not only for the head-count index, but for higher order poverty measures as well (Ravallion 1993). We therefore restate it as follows: If the distribution curve in state A is nowhere above that in state B, then poverty in A can be no greater than in B regardless of the poverty line or measure (at least within the FGT class).

What happens if distribution curves do intersect? Then, no unambiguous ordering of poverty may be claimed on the basis of the head-count index. The outcome now depends on the chosen poverty line. However, if the area under A is still less than the area under B, then measuring poverty with the poverty gap index and square poverty gap will lead to the conclusion that there is less poverty in A than in B. This is the *second-order dominance test.* In principle, if this test is inconclusive, one may further restrict the range of admissible measures of poverty and proceed analogously.

Foster and Shorrocks have shown that (1988a:181, 1988b): (1) First-order stochastic dominance is equivalent to ranking by social welfare functions that are symmetric and increasing in the level of living standard; (2) orderings by the poverty gap index agree with those made on the basis of monotonic and inequality averse social welfare functions [In accordance to Shorrocks' theorem this is equivalent to the generalized Lorenz curve dominance which reduces to the simple Lorenz dominance when the two distributions have the same mean (1983)]; and (3) poverty orderings by the squared poverty gap indicator are backed up by value judgments reflected in symmetric, monotonic, inequality averse and transfer sensitive social welfare functions.

49

Figure 3.8   Guinea (1994): Intensity of Poverty by Region
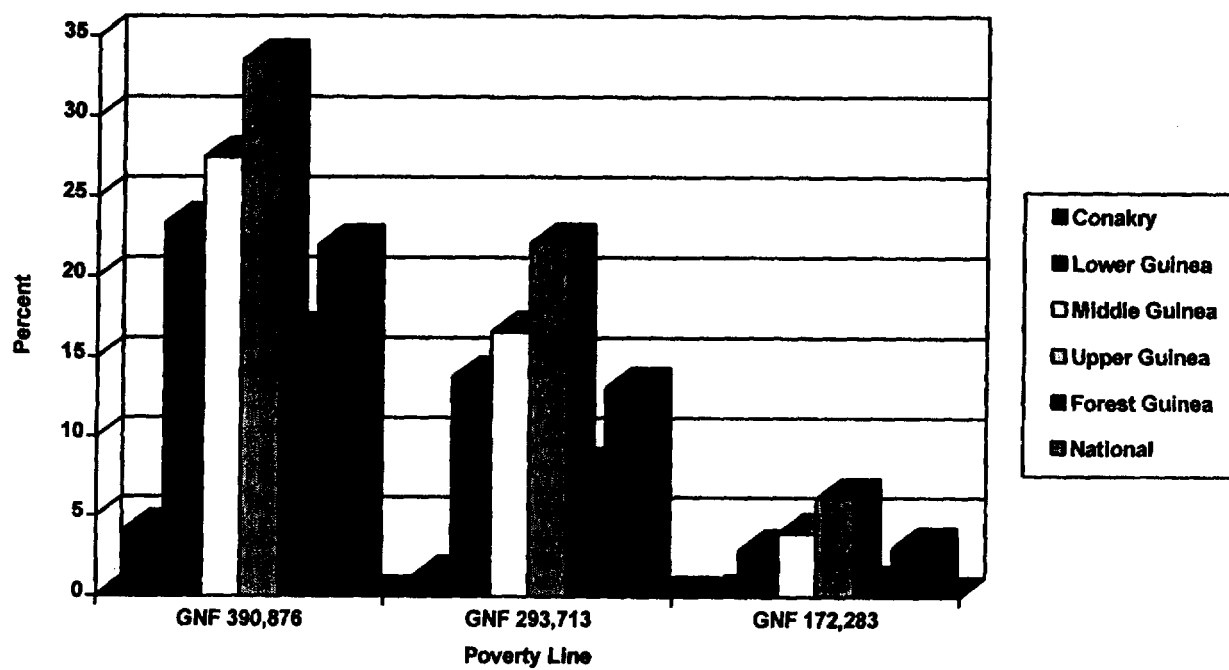
3.21   Increasingly, there is evidence that *human capital investment in women is socially more productive than investment in men*, furthermore gender attributes are not easily adjustable. For these reasons it is important to investigate the gender dimension of welfare in Guinea.[35]

3.22   It is estimated that women represent 51 percent of the total population in Guinea. The overall gender ratio is about 96 men for 100 women. This ratio is below 100 for all regions except Conakry and Upper Guinea. In Conakry for instance, the ratio is estimated at 106. The observed reversal from these two regions is mainly a result of migratory movements (by men in search of opportunities) to the capital city and to gold and diamond mines in Upper Guinea. On the basis of age groups, there tend to be more men than women up to the age of 19. Women tend to dominate the age group 20 to 54. And above the age of 55, there tend to be more men than women.

Figure 3.10   Guinea (1994): Inequality by Gender of Household Head (Atkinson Index)

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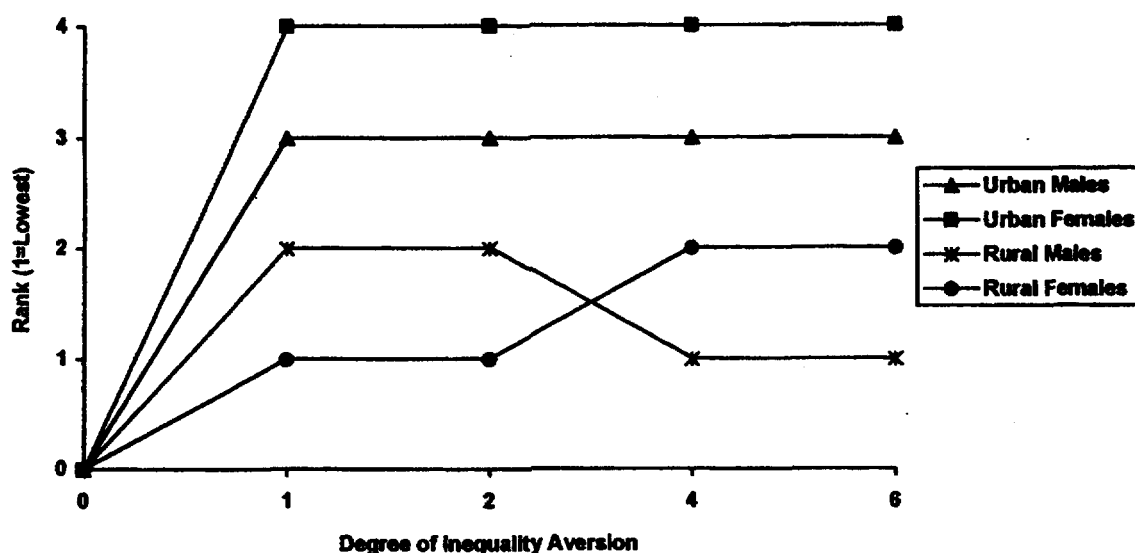
[35]   See Schultz (1994). The author reviews evidence that not only such investment brings high individual market returns, it is also associated with positive externalities such as reduced child mortality and fertility, involves intergenerational redistribution in the form of better heath and education of children and slower population growth.

Figure 3.9   Guinea (1994): Severity of Poverty by Region
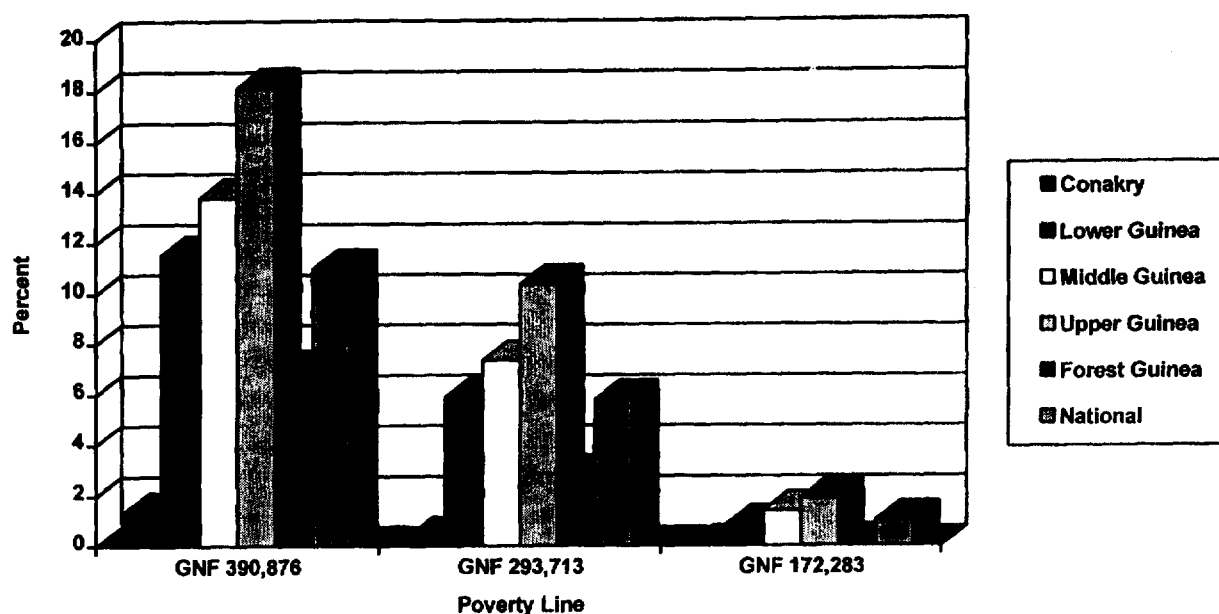
3.19   With respect to the urban-rural breakdown the evidence shows that *even though urban poverty is significant, poverty in Guinea remains a rural phenomenon*. On the basis of the Cornell poverty line for instance, it is estimated that the rural sector contributes for about 83 percent of national poverty versus 17 percent for the urban sector.

3.20   Finally it is important to note that social indicators also confirm the regional disparities revealed by the data on per capita expenditure. The following table gives gross regional enrollment rates at the primary level and average distance from home to school.

Table 3.2   Guinea (1991): Regional Primary Enrollment Rates and Home to School Distance in Km.

Region	Gross Enrollment	Distance
Conakry	79.4	
Forest Guinea	35.0	7.6
Lower Guinea	28.4	12.3
Middle Guinea	23.3	10.5
Upper Guinea	20.9	15.8

Source: Government of Guinea

Figure 3.12 Guinea (1994): Incidence of Poverty by Gender of Household Head
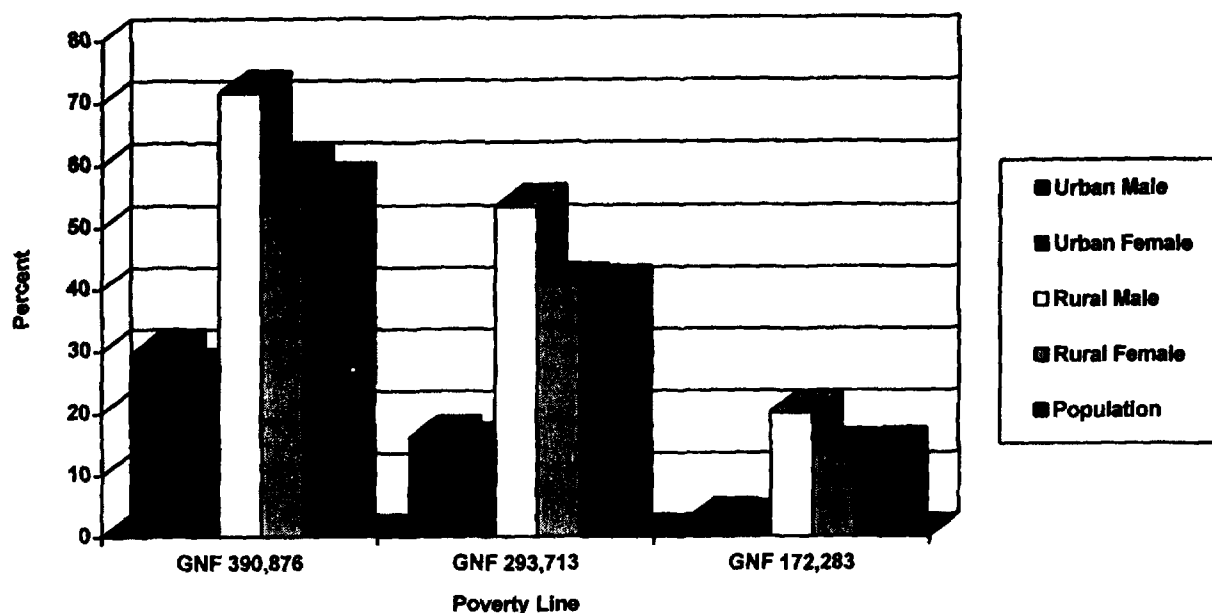
Box 3.6 *The Importance of Labor Markets*

A policy reform or a shock will affect employment and earnings through the intreconnectedness of product, labor and capital markets. Various adjustments that occur in the product market will affect the derived demand for labor depending on relative labor-intensity of different sectors of activities. Changes in the derived demand will ultimately affect household livelihoods. Labor mobility is a crucial determinant of whether certain workers will earn a premium on their labor return in the short run. Government policies will affect the way losses and gains associated with these adjustments will be shared.

Product market adjustments do affect labor supply as well. An increase in the prices of certain essential commodities may lead to an increase in labor force participation by other members of the household besides the main income earner (e.g. school-age children). The same changes may lead to people working longer hours or holding multiple jobs.

The importance of the labor market is further underscored by the fact that in a developing country such as Guinea, most households derive their livelihood only from the sale of their labor services. This fact underlies indeed the recommendation of labor-intensive economic growth as a fundamental element of a poverty alleviation strategy (World Development Report 1990).

Figure 3.11   Guinea (1994): Welfare Comparisons by Gender of Household Head (Equally-Distributed Equivalent Expenditure by Gender)

Degree of Inequality Aversion
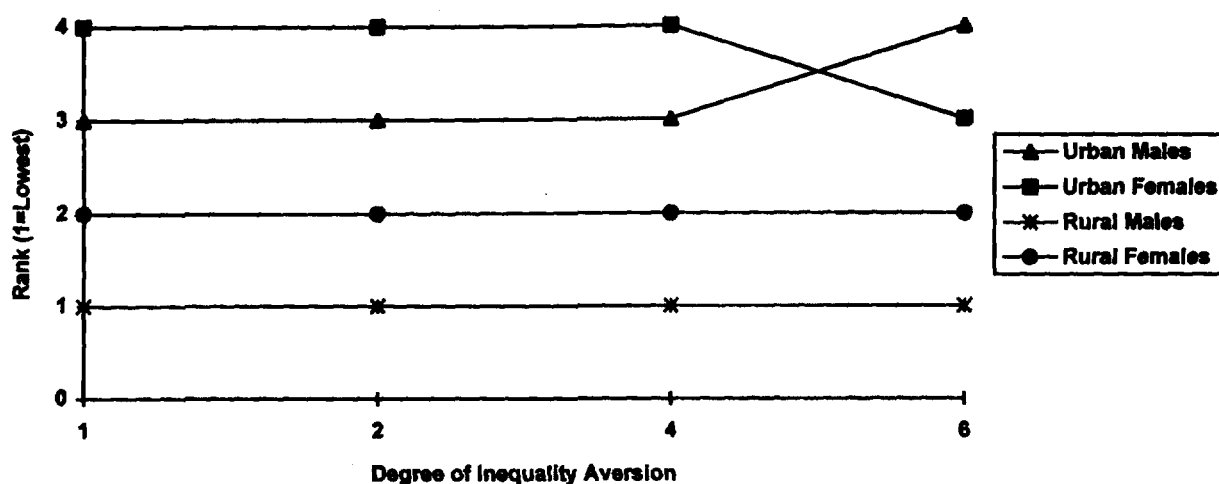
3.23   Figures 3.10 through 3.12 show respectively gender comparisons of inequality, welfare and poverty. The distinction is based on data pertaining to the gender of the head of household. The data show that inequality tends to be higher among female-headed households than male-headed households. Furthermore, taking into consideration both the average expenditure and the within group inequality, female headed households tend to be better off and less poor than male-headed households.

3.24   It is to be noted that with respect to poverty, the pattern remains the same for all three dimensions: incidence, intensity and severity. Furthermore, the result that female-headed households tend to be better off than male-headed ones is consistent with what is revealed by the analysis of data from Côte d'Ivoire (Kakwani 1993a:51).[36] Given that the sample included only 10 of the population in female-headed households and not all these persons are females, the true picture of gender inequality may have to be sought elsewhere. For this we turn to the labor market where most Guineans earn their living.

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[36]   In this context, Kakwani cites an explanation from Glewwe(1988). The explanation given in this case is that female-headed households are disproportionately located in urban areas which are richer than the rural areas. However, in the case of Guinea, the data indicate that 10 percent of the total population live in female-headed households: 4 percent in urban areas and 6 percent in rural areas, so this explanation does not apply.

52

Participation

3.26   Labor force participation involves all individuals who are currently employed as well as those who are looking for work. On the basis of a sample of 1,725 households comprising 3,566 men and 3,306 women 15 years of age and older, Glick and Sahn (1995) found that the participation rate for men between 30 and 50 was close to 100 percent. The rate for women in the 15 to 65 age bracket was estimated at 40 percent. Men are relatively equally spread across the three sectors of employment: (1) private wage; (2) public wage; and (3) self employment. Women tend to be concentrated in self-employment and those who are self-employed tend to come from the lower deciles of per capita household income distribution.

3.27   With respect to educational attainment, it was found that both men and women employed in the public sector tend to be well educated. Men have an average of 10.2 years of schooling compared to 11.9 years for women. Average years of schooling are very low in the self-employment sector: about 3 years for men and 2 for women. In the private wage sector, women average over 9 years of schooling and men only 5.

3.28   Further analysis confirmed the *heterogeneity of the urban labor market in Guinea* in the sense that the determinants into its different segments are not the same. The higher the level of education, the less likely is the person to be self-employed. With respect to the private wage sector, more education increases the probability for a woman to be employed in that sector but it reduces that of a man. In that particular sector, very few women are found in either unskilled jobs or in skilled trades. Furthermore, over half the women are found in professional/managerial or clerical jobs versus 16 percent for men.

3.29   In an assessment by the authors of the *impact of gender* alone on entry to different segments of the labor market, it was found that *women have a much lower chance of entering wage employment.*[39] The predicted overall probability of working turned out to be lower for women than for men. Even at lower skill levels men have better chances than women. It was estimated that men who have not completed primary education have an 18 percent chance of entering the wage sector of the labor market compared with 0.6 percent for women.

3.30   The study explains that these gender gaps in wage employment are due to endogenous factors linked to the operation of the labor market and exogenous ones related to *parental investment in boys and girls education.* On the demand side of the labor market, there is evidence of barriers to women's employment in the private wage sector. This could be due to the traditional reluctance of many employers to hire women on the basis of the perceived costs associated with maternity and child-rearing. This

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[39]   The assessment is based on probabilities of sector participation by sex and education level on the basis of a separate application of a logit model to males and females setting all other explanatory variables to the mean values for the entire sample (i.e. males and females combined). The obtained results thus correspond to sector entry probabilities for a man and a woman with the same characteristics.

This box summarizes the findings of several studies by Cornell University based on a household survey conducted in 1990. The focus is on segmentation, participation and earnings.

A labor market is any process that brings together the supply of and demand for a certain type of labor. Labor may be differentiated by such characteristics as skills, location, gender of the supplier, etc. Labor market *segmentation* exists when similar worker characteristics receive significantly different rates of return according to the subsector of employment. This heterogeneity is a structural rigidity with potential implications for the transition costs facing laid-off workers. This is a fundamental factor to be considered in the design and implementation of public sector reform programs. For the urban labor market in Guinea, Mills and Sahn (1996) present evidence of segmentation between the wage and non-wage sector.

On the basis of a nationally representative sample of 1,728 households living in Conakry in 1990-1991, it was found that, of the 2,565 people surveyed who were engaged in income earnings activities, 24 percent worked in the private wage sector, 24 percent in the public wage sector and the remaining 52 percent were self-employed in household based enterprises. The sample also revealed that non-wage workers earn more on the average than the wage workers. The hourly average earnings were estimated at GNF 347 in the non-wage sector versus GNF 305 for the wage sector.[37] Furthermore, the average worker in the wage sector is likely to be a male with a higher level of education than the average worker in the non-wage sector. These descriptive statistics suggest labor market segmentation.

The results from further statistical analysis showed that: (1) age and formal education have a positive relationship with the probability of residing in the wage sector; (2) being female has a very strong negative effect on the probability of selecting the wage sector of employment. Overall, the analysis supports the view that returns to individual characteristics are significantly different in the wage and non-wage sectors. It was also found that *women face high search costs* and other barriers in the wage sector market and will therefore accept more readily available non-wage sector employment at lower expected earnings.

3.25   Glick and Sahn (1995a) provide an in-depth analysis of labor market issues in Guinea using the same Conakry data set. They consider four possible employment outcomes for both male and female participants: (1) nonparticipation; (2) self-employment; (3) private sector wage employment; and (4) public sector wage employment. With respect to market segmentation, they investigate whether these labor market segments differ significantly with respect to the determinants of entry and earnings with particular emphasis on gender differentials. Their analysis is based on a multinomial logit model.[38] The next two sections report on their findings.

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[37]   Mills and Sahn (1996:3).

[38]   See Annex.

Gender Dimension

3.33 *Average hourly profits for men exceed those for women by 120% in self-employment (Glick and Sahn, 1995a:20-25). In the public sector average male earnings exceed female earnings by about 20%. However, in the private wage sector female wages are slightly higher than males'. This could be due to superior education of the female employees in the private sector.* These observed differences raise the issue of whether they are due to discrimination in pay or to such characteristics as education and experience.

Box 3.8 The Effects of Mother's Employment on Child Nutrition

Based on survey data from Conakry and using the anthropometric outcome of child height standardized on age and sex as an indicator of nutritional status (height-for-age), Glick and Sahn (1995b) found that: (1) there is a tradeoff between the negative effects on childcare associated with the mother's labor market participation and the positive effects of the derived income; (2) the overall effect is however negative; (3) additions to maternal labor income yield an improvement in the nutritional status of the child that is greater than that associated with equivalent additions to non-mother household income. *This suggests that mother cares best. In other terms, household income may not be completely pooled within the household and that preferences differ among family members over the allocation of resources to childcare versus other uses.*

Policy Implications: Investing in women's education or reducing gender bias in credit markets will improve both women's earnings and will be more effective in improving child nutrition than measures that indiscriminately increase overall household income. However there is a nutritional risk associated with this policy that may be dealt with by the provision of adequate childcare alternative for mothers who enter the labor force. This affords an opportunity for private sector development!

LITERACY, HOUSEHOLD SIZE AND POVERTY

3.34 With respect to literacy, the results from the integrated survey show that 81 percent of the total population reside in households whose heads are illiterate. Among households with literate heads, 3 percent of the population reside in households whose head has finished primary school, 2 percent in households headed by graduates from first level of secondary school and 1 percent in households headed by second level of secondary school graduates, 3 percent in households headed by graduates from a technical school, 3 percent in households headed by university graduates, and 8 percent in households whose heads have some sort of education. These results are presented in Table 3.3.

could also be due to simple biases or stereotyping. *It has been established that in Guinea, graduates from female vocational training have difficulties finding jobs in those fields.*

3.31 On the supply side, traditional attitudes towards work for women outside the home combined with culturally-conditioned low career aspirations may tend to contribute to the observed outcome. But this needs to be established more firmly.

Earnings

3.32 Glick and Sahn (1995a: 13-20) found evidence that *the determinants of earnings do vary from sector to sector*. This is further evidence of heterogeneity of the urban labor market in Guinea. For the particular case of education it was found that the *returns to schooling* do not vary significantly across segments of the labor market. Their findings may be summarized as follows:

- *Male Education:* (i) in self-employment men who have completed secondary education earn twice as much as those who have not completed primary school; those who have attended university earned three times as much as the reference group; (ii) in the public sector returns to primary education were slightly higher than in the private wage sector, but the situation reverses itself at high level of education: post primary education pays more in the private sector than in the public sector.
- *Female Education:* (i) in self-employment women who completed primary school earn 30 percent more (hourly) than women who did not. Unlike the case of men, post primary education has no significant impact on what women earn through small enterprises in self-employment. This suggests that post-primary education may not be useful for the types of activities in which self-employed women are involved. (ii) in the public sector, the returns to female education are significant at all levels. No significant results could be established by the authors in the case of private sector employment.
- *Experience:* It was found that (i) in private wage employment, age is associated with higher earnings for men; (ii) for both men and women in self-employment, occupational experience had a similar effect; and (iii) in the public sector, occupational experience has a small but significant impact on women's wages (but not for men).[40]
- *Enterprise Capital:* measured by a proxy: the value of capital purchases made for the enterprise over the past year. It was observed that businesses run by men employ more capital than those run by women. *This may be a reflection of the constraints that women face on the credit market.*

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[40] This was captured by the number of years of occupational experience and dummies for the age.

Expenditure Components

3.37 The decomposition of the overall welfare indicator has very useful policy implications. Concentration indices may reveal which commodities are mostly consumed by the poor and which by the nonpoor.[42] Such information may be used to justify subsidies in well-targeted interventions for poverty alleviation. Furthermore, the ratio of the concentration index to the overall Gini coefficient may be interpreted as an income elasticity (Yitzhaki 1994). These elasticities may help determine the progressivity of any policy, such as a tax, affecting a particular expenditure component. It is well known that *a policy is considered progressive if its implementation leads to a reduction of the real income Gini index*. Thus, a tax on an expenditure item is progressive if the income elasticity of the commodity is greater than one. In such a case, the tax base is increasing with income because a higher burden is imposed on the rich in proportional terms. Hence, inequality in real terms decreases.

3.38 Table 3.5 presents income elasticities estimated for ten expenditure components on the basis of *extended concentration coefficients*.

Table 3.5 Guinea (1994): Inequality by Expenditure Components (Income Elasticities)

| Component Group | *Level of Inequality Aversion* | | | | | | | | | |
	1.01	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Food	0.529	0.779	0.822	0.845	0.861	0.873	0.882	0.889	0.895	0.900
Clothing	0.824	1.016	1.037	1.044	1.047	1.048	1.048	1.049	1.048	1.048
Housing	1.294	0.872	0.844	0.834	0.830	0.827	0.826	0.825	0.825	0.825
Durables	2.294	1.285	1.244	1.271	1.197	1.183	1.171	1.162	1.154	1.147
Personal Care	0.706	1.105	1.124	1.128	1.126	1.124	1.121	1.118	1.115	1.113
Education	0.412	0.812	0.910	0.966	1.001	1.023	1.038	1.048	1.055	1.060
Transportation & Communication	2.529	1.597	1.464	1.398	1.357	1.329	1.309	1.292	1.279	1.268
Recreation	1.118	1.510	1.407	1.354	1.321	1.298	1.280	1.267	1.256	1.247
Ceremonies and Other Transfers	0.824	1.178	1.158	1.141	1.128	1.117	1.108	1.101	1.094	1.089
Other	0.941	1.336	1.289	1.263	1.246	1.235	1.226	1.219	1.213	1.208
Gini	0.017	0.453	0.573	0.633	0.669	0.694	0.713	0.727	0.739	0.748

Source: 1994 IHS

3.39 The structure of these elasticities is such that we can also tell whether a particular component has a negative or a positive effect on total inequality. As Podder (1993:53) explains it, if a component is proportional to total expenditure it will have no particular effect on total inequality. Its concentration index will be equal to the overall Gini. Thus,

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[42] When a specific expenditure component is arranged in ascending order of the total expenditure and one plots the cumulative proportions of the components against the corresponding cumulative proportions of the population, one gets the concentration curve. The concentration index is equal to one minus the area under the concentration curve. This curve may lie above the line of perfect equality (the 45 degree line) in which case the concentration index is negative (Podder 1993:52).

Table 3.3   Guinea (1994): Poverty Comparisons by Education of Household Head

Education Level of Head of Household	Number of Households in Sample	Population Share	Per Capita Expenditure	Incidence	Intensity	Severity
Illiterate	3,109	80.5	399,827	62	25	13
Primary Graduate	188	3.1	596,010	42	13	6
Secondary 1 Grad.	124	1.8	746,561	19	5	1
Secondary 2 Grad.	100	1.3	755,408	17	4	1
Technical Graduate	247	3.2	919,039	16	4	2
University Graduate	222	2.5	1,676,167	5	1	0
Some Education	426	7.6	519,828	53	16	7
All Literate	1,307	19.5	781,325	34	10	4
National	4,416	100	474,332	56	22	11

Source: 1994 IHS

Household Size

3.35   Household size ranges from 1 to 39 individuals. The median household contains 6 persons. For the purpose of this analysis we consider three classes of households. Households containing 1 to 4 individuals will be considered small. They account for about 15 percent of the total population. Medium-size households have 5 to 6 members and account for 21 percent of the total population. Finally, households of seven or more members are considered large. They account for about 64 percent of the entire population. This classification follows the one use by Kakwani in 1993 in a study on Côte d'Ivoire.[41]

Table 3.4   Guinea (1994): Poverty Comparisons by Household Size

Household size	Number of in the Sample	Population Share	Per Capita Expenditure	Incidence	Intensity	Severity
1 to 4 persons	1,571	14.5	715,017	34	10	4
5 to 6 persons	996	20.9	486,467	53	21	10
≥7 persons	1,849	64.6	416,446	62	25	13
Total	4,416	100	474,332	56	22	11

Data Source: 1994 IHS

3.36   The above results confirm those from several other empirical studies showing that larger households are more likely to live in poverty.

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[41]   Kakwani (1993a:53).

4. STRUCTURAL AND POLICY DETERMINANTS OF WELFARE AND POVERTY

4.1   Social welfare in general, and poverty in particular, within a given society depend essentially on the structure of the economy and the policy stance. The outcome depends also on the growth and inequality characteristics of the system. This chapter focuses on the implications of economic management both at the macro and sector levels, subject to the structural features of the economy. The emphasis is placed on the factors that either limit economic growth or increase inequality.

LAND TENURE AND WATER RESOURCES

4.2   *One important characteristic of the poor in general is that they tend to be located in areas where investment opportunities are limited and rates of return low.* Two types of assets are to be considered: material assets such as land and credit, and human capital. In many developing countries *landlessness* is a prime cause of rural poverty. Thus an important means of alleviating rural poverty may involve some sort of *land reform.* However, there are severe constraints to the implementation of land reform. The reform tends to be administratively too complex and politically too difficult and may take a long time. Furthermore, land reform may disrupt production at a critical time. This would make governments quite reluctant to meddle with land tenure systems if doing so entails a short-run loss of output.[45]

4.3   There is evidence that traditional land-tenure systems in Guinea may involve a severe gender bias and discrimination of certain castes within the traditional society, as illustrates the following example from Fouta Jalon.[46] In the province of Fouta Jalon, the US Agency for International Development (USAID) conducted a study of natural resource management and land tenure which was released in April 1995. Approximately 16 percent of farms or 13 percent of cultivated land have property titles, whereas 69 percent of all farms or 73 percent of cultivated lands are allocated according to custom. Under the latter arrangement, there is a distinction between the ownership of the means of production and claim to what is produced by these resources. The cultivator may claim all that which he or she produces with only a slight remuneration to the landowner. This

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[45]   Demery and Addison (1987).

[46]   Fisher (1993).

income elasticity will be equal to one. If the component rises more than proportionately with total expenditures, however, the associated income elasticity will be greater than one and we may conclude that the component has a positive effect on overall inequality. Similarly, an income elasticity less than one will lead us to believe that the component has a negative effect on total inequality.

3.40   Based on the above interpretation, it is clear that expenditures on durables, personal care, transportation and communication, recreation, ceremonies and other (non-classified) do contribute positively to the overall observed inequality. The fact that the income elasticity of these expenditures is greater than one suggests that they could be targeted in the search for a base to an indirect tax system. If such a tax system could be implemented, the above results show that such a system would be progressive. This conclusion is invariant to the underlying value judgments as the elasticities remain substantially above one for a wide range of values in the domain of the inequality aversion parameter.

4.10   Because of the small size of the parcels, in Fouta Jalon *most farmers are obliged to borrow land* from their neighbors or parents. As a result, a farmer is never certain of where he will cultivate. The limited rights translate into *restricted tenure security*. Security of holding in turn influences the land user's ability to make long term management decisions and to adopt practices to protect and regenerate natural resources.

4.11   Former captives' adoption of new land uses or management practices that increase the land user's claim on the land, such as the planting of permanent tree crops (trees remain the property of the planter as distinct from the owner of the land) are likely to be prohibited by the nobles who hold ultimate rights to the land.

The Land Code

4.12   In March 1992 a new land tenure code was promulgated based on the right to private property. *This was designed to favor private investment and to support efforts for farmers to obtain credit.* In practice, however, this system is subject to numerous constraints above and beyond those associated with costs and technical implementation.

4.13   There is no private appropriation of land possible on certain *bas fonds* where the relationships between existing titular owners of rights and the residents are inextricable and every act of authority runs the risk of reducing the access of the poorest to irrigated land.

4.14   Because of the degree of indebtedness of rural populations, particularly the smaller farms, the use of the land as security could rapidly lead to loss of the land and its acquisition by larger farming operations. Also, there are no established systems for agricultural worker compensation outside of family relationships. The following table describes various categories of land rights.

Table 4.1   Guinea: Traditional Land Tenure (Fouta Jalon)

Right of use	*Description*
Limited	Rights to grow annual crops and to collect firewood and fruits
Full	Rights to grow annual and perennial crops, to make certain permanent improvements to collect firewood and fruit among others

Transfer rights	*Rights to lend, rent, mortgage, give, bequeath and sell*
Limited	Land user has no permanent transfer or alienation rights but may have some temporary privileges to lend or rent the land
Preferential	Limited to transfer within family or lineage
Complete	Total right to alienate land to those outside of the village

is particularly true in Middle Guinea. As a result there are no direct means to improve the agricultural system nor are there plantations or peasants without land.

Gender Differences

4.4   *The two groups which suffer the most from this system of land tenure are the women and the descendants of captives.* The women are doubly disadvantaged because they may only borrow land indirectly through a male, and it is a male's responsibility to distribute land between members of his family. Also, even when women succeed in borrowing land they only cultivate less fertile and smaller areas.

4.5   Women's access to the land and right to the produce of the land are determined according to one of the following criteria: (1) frequently the titular owner of the land receives a payment after every harvest (between 1/10 to 1/3 of the crop); (2) the woman must contribute labor to certain projects undertaken on the parcel lender's own property; or (3) the women's children need to be available for Kile in the fields of the landowner. Also women were traditionally restricted to the cultivation of "suntuurè" or inner fields, not the outer fields that are the exclusive domain of men.

4.6   The intensive cultivation practiced in the suntuurè requires that soil fertility be maintained through consistent manuring and mulching. *Maintenance of this fertility is the sole responsibility of a woman, and her investment in soil building will vary according to her work load and physical strength.* Outer fields are traditionally the men's domain. People prefer cultivating valley-bottom fields but Forestry Agents have increasingly prohibited farming in these areas

4.7   With the decline of rainfall since the 1970s, yields have reduced in both inner and outer fields. In the latter case, the villagers have abandoned long-season, slow-growing varieties Due to population pressures and the governmental restrictions on land use fallow periods have shortened and today average between three to ten years. On river bank and valley bottom fields the fallow rarely exceeds seven years. Fears of reprisals and heavy fines have led to the abandonment of these fields for longer periods.

4.8   Many women now cultivate parcels in outer fields on a portion of their husband's fields. This is because, despite the fact that the fields were traditionally the domain of men, the male exodus for wage labor has left women to fill the gap.

Caste or Class Differences

4.9   *Land belongs to descendants of the original occupants or conquerors, the Fulbe.* These lands are passed on to the eldest son at death or divided among living sons during the landowner's life time. Ex-captives now cultivate lands alongside the Fulbe but their use rights to the land are more restricted than those rights retained by the original owners.

62

information, and knowledge of their local NR base to make local-level management feasible and sustainable.

4.21   A longer-term resource management approach is needed. And given that villagers are fearful of losing their land to the state or to a project, development practitioners need to be extremely sensitive to this and diminish their concerns. In this context, it should be noted that villagers often confuse an NRM "project" with the "state" and its desire to "take land from the them to develop and use."

4.22   *Rights to trees and rights to land where trees are to be planted need to be discussed.* Tree ownership is linked to land-ownership in Fouta Jalon. Tree planting is therefore strictly controlled to prohibit non-owners of land from planting trees. Ex-captives and women are the most affected, as neither group is able to freely plant trees.

4.23   *A grazing land policy is needed.* Grazing resources are considered common-pool assets, though the land on which the forage is found is owned privately. The inhabitants of the watershed have very few rules managing and regulating herding activities.

4.24   Project managers should choose water sources in consultation with local inhabitants, because traditional belief systems dictate which water source is used. *Water resources* are considered common property. Management rules have fallen into disuse with increased dependence on household wells. Furthermore, open access to fishing resources needs to be re-investigated as this was common in the past.

LACK OF DIVERSIFICATION OF PRODUCTIVE ACTIVITIES

4.25   The structure of the Guinean economy may be characterized in terms of the sectoral distribution of GDP and on the basis of indices of sectoral linkages. In terms of sectoral shares, agriculture represents 24 percent of GDP.[47] Industry accounts for about 31 percent of GDP and the service sector about 45 percent. The sectoral linkages are shown in Figure 4.1 in terms of the *Rasmussen Indices of backward and forward linkages* for 1990. The index of backward linkage is a normalized measure of the total impact on the economy of a one unit increase in the demand for the output of the sector under consideration. A value of this index greater than one indicates that an increase in the demand for the output of this sector will generate a greater than average impact throughout the rest of the economy. Similarly, the forward linkage index is a normalized measure of the impact on a given sector from a unit increase in all final demand. A forward linkage index greater than unity means that the sector under consideration would receive a greater than average impact from an increase in all final demands. In this Rasmussen framework, sectors with linkage indices greater than one are considered key sectors.

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[47]   International Economics Department data. World Bank, 1995.

Water Resources

4.15   Rainfall has declined since the 1970s with negative implications for water resources. This has affected crop choices and cultivation location and has caused herd animals to be kept further afield.

4.16   The gender and class differences described in the study underscore how difficult it is to actually convert a land tenure system and transform an agricultural community with diminishing resources and competing claims to water, fields for cultivation and grazing. The allocation of resources and property rights continue to follow patterns established prior to the First Republic and even prior to the colonial period. Now because of government environmental management concerns, there is the additional constraint of government inspectors preventing cultivation of some of the most fertile land.

4.17   *Rights and security in land in the watershed vary according to social rank, gender, age and resident status.* The complex array of land rights and the variability that exists in and between villages will affect what project interventions should be selected and for whom. There is a widespread fear among villagers that they will lose their land to the state or project.

4.18   Grazing resources are considered common-pool assets, though the land on which the forage is found is owned privately. The inhabitants of the watershed have very few rules managing and regulating herd activities. Village territorial limits have little significance in relation to pastoral activities *Herds crisscross village territories, especially during the dry season, facing virtually no restrictions.* The villagers are not at all satisfied with the state's "early burning" policy for the bowal. They argue that application of the policy causes more harm than good, and they resent their loss of autonomy in this resource-management activity.

4.19   Water resources are recognized as common-property resources and are managed communally by villagers. The management rules have fallen into disuse with increased dependence on household wells. *Many water sources are considered to be filled with spirits and supernatural powers, which sometimes affects the local inhabitants' use of the resource.* More than one village can use a single water source, though all natural springs are located within village territories and are common property of that village. In the past there has been open access to fish in seasonal and perennial ponds. Project investment in fishing resources may increase the interest in and competition for access to these resources.

Some Policy Implications

4.20   *Devolve power to the local level.* This may involve the creation of Local-level Natural Resource Management (NRM) institutions should be created. However, adoption of the *terroir villageois* approach should remain supple in its operation, with constant awareness of the specificities of the place and social groups to whom it is being applied. *Efforts need to be made to insure that the villagers acquire the necessary skills,*

4.28   The two fundamental determinants of income poverty are the size and the distribution of national income. Holding inequality constant, the potential of a country for poverty reduction depends on the responsiveness of poverty to economic growth. Such responsiveness may be measured by the growth elasticities of various poverty measures.[49] Tables 4.1 and 4.2 present poverty elasticities for the headcount index based on both Cornell's and the government's upper poverty lines. These elasticities are quite low, *indicating thus low potential for the Guinean economy to alleviate poverty through growth.* Indeed the low level of these elasticities explains the result presented in Chapter two where it was observed for the sample period 1986-1996 that the economy was unable to reach a growth rate that would keep the number of poor constant.

4.29   These elasticities are also low by international standards. Jayarajah et al. (1996) have computed such growth elasticities for a sample of 46 countries. They found that these elasticities tend to be higher (between two and four) in East and South Asia, compared to Sub-Saharan Africa. For the latter, the growth elasticity was consistently less than one. The results from Guinea presented in the tables below do not seem to deviate significantly from these observations. This situation may be linked to the structural characteristics of the economy. *As the results on inter-sectoral linkages demonstrate, the Guinea economy has a dual nature, where most of the poor operate either in the subsistence agricultural sector (in the rural areas) or in an informal sector (in the urban areas) with weak links to a very small industrial sector.* Under such circumstances, one would not expect growth in the industrial sector to have a significant impact on poverty in the subsistence or the informal sector.

4.30   To promote high poverty responsiveness to growth, it is important to increase the productivity in the subsistence or the informal sector. *This may require investment in human as well as in physical capital and restructuring of incentives.* A smooth operation of the labor market is important in this regard. Increased productivity in this sector should lead eventually to both increased inter-connectedness of the productive sector and factor mobility within the economy in a response to changes in the structure of incentives. *In any event, the necessary changes in the structure of incentives must be guided by the regional as well as the socio-economic distribution of poverty within the country.*

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[49]   See Jayarajah et al. (1996:70-73). Such indicators measure the percentage change in observed poverty associated with a given change in mean income. In the particular case of the poverty incidence, it can be shown that the poverty elasticity is the negative of the elasticity of the cumulative function at the poverty line. Thus the size of the corresponding elasticity is determined by the size of the headcount and the steepness of the cumulative distribution at the poverty line. As it turns out, the higher the headcount the lower the growth elasticity the steeper the distribution at the poverty line the higher the elasticity.

Figure 4.1 Guinea (1990): Sectoral Linkages (Rasmussen Indices)
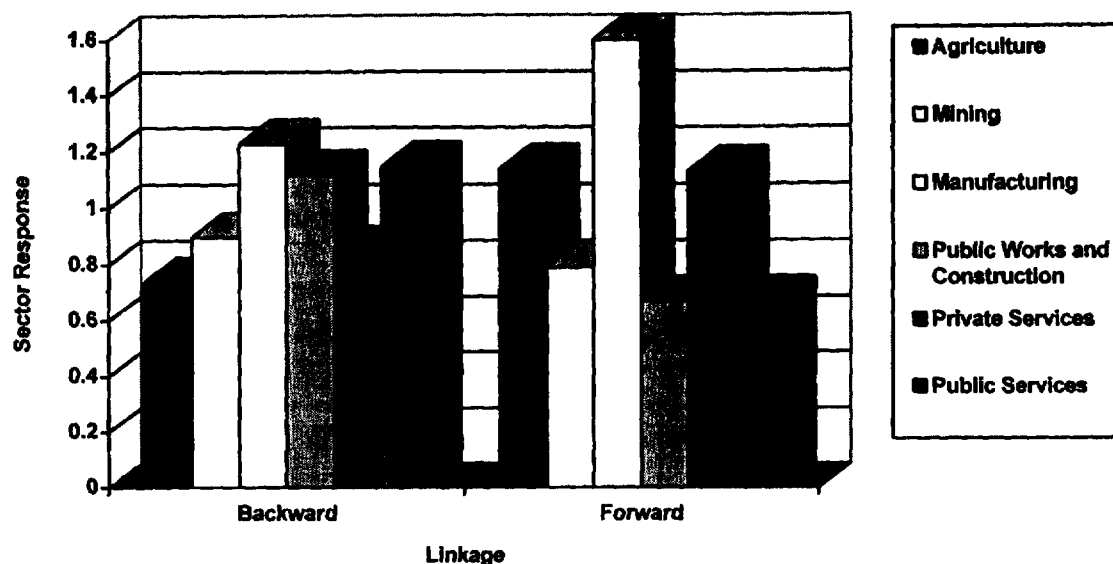
4.26 *These results reveal both the lack of a diversification of the productive sphere of the Guinean economy and also the weak sectoral inter-connectedness.* Indeed, only the manufacturing sector shows both backward and forward linkages, greater than one. However, it would be erroneous to consider this sector a key sector in light of its small share in GDP (about 5%). *In the particular case of agriculture which ought to be a leading sector in the economy in view of its share in total employment, the backward linkage is less than one, which means the stimulation of the demand for agricultural products will not result in any significant impact throughout the economy.* This is probably due to the subsistence characteristics of Guinean agriculture and the fact that it does not rely significantly on inputs from the rest of the economy nor does it provide significant input to other processing industries.

4.27 *If the agricultural sector is to play a leading role in promoting growth and reducing poverty, then policy measures must be found to enhance its productivity and its ties with the rest of the economy.* In this context, it is to be noted that the current agricultural sector strategy is encoded in the so-called Letter of Agricultural Development Policy (LPDA).[48] Among the stated objectives are to (1) promote food security; (2) promote agricultural exports; (3) provide essential services to farmers; and (4) ensure a rational management of natural resources. *With respect to the achievement of food security, the government is bent on using tariffs to curtail the import of rice. As stated earlier, this seems to be the wrong approach to the problem, as the welfare cost to the poor seems to be higher than any other potential benefit.*

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[48] *Lettre de Politique de Développement Agricole*, 1991, which is currently under revision.

vagueness of the Civil Service Statutes. *This poor specification of the rules of the game creates ample opportunity for those in charge of enforcement to circumvent the code at no penalty.* The report cites instances where productivity allowances have been granted universally regardless of individual performance, even though the statutes require that this be linked to an annual staff performance evaluation.

4.33   As for the erratic behavior of the system, it is to be noted that career advancements, according to the statutes, must meet strict educational criteria and conform to specified hiring (competency exams) and promotional (job productivity and risk) procedures. In particular, it is required that both the Minister of Civil Service and the Minister of Finance jointly appoint staff within the civil service who meet these criteria. *Yet, there is evidence that many of these rules are not followed.* For instance, it appears that most of the employees hired during 1993 were never subjected to competitive examinations. Furthermore, the system is characterized by a lack of staffing charts and job descriptions. This situation can hardly promote a meaningful system of personnel management.

4.34   Given the scope and complexity of the PREF and the weak management capacity, the World Bank, in collaboration with other major Donors, has attempted to address this issue through a series of *technical assistance projects for economic management.* Two technical assistance projects were approved in 1985 and 1988 respectively along with two structural adjustment credits. The two projects aimed at facilitating the implementation of the government's reform program in the short-run and at fostering long-term institutional development and capacity building in the domain of economic management. *The audit of both projects rated the overall outcome as marginally satisfactory and considered the institutional impact as modest, judging as uncertain the sustainability of the effort.* The audit cited the principal reasons as: (1) over-ambitious objectives; (2) complex design; (3) lack of Donor coordination; and (4) the inability to implement the strengthening of local capacity components (due to technical assistant resources fully taken by the day-to-day demands of the reform program's implementation).

4.35   *Based on the experience of this project, it was recommended that an integrated approach be adopted for the formulation of an institutional development strategy in Guinea.* Such an approach should deal with systemic issues such as the incentive structure in the civil service. It should also be based on effective donor coordination and mechanisms for the transfer of skills. In this particular case, it is recommended that emphasis be placed on in-service training of local staff and that formal training be more specifically targeted. *Furthermore, such a strategy should be based on a merit system, efficient resource allocation and the fostering of a culture that promotes and rewards professionalism, integrity and self-improvement.*

INFORMAL SECTOR

4.36   *The real challenge to the government in Guinea is, of course, to provide employment for the majority of people, in particular the poor, who have very limited*

69

Table 4.2 Guinea: Evolution of Growth Elasticities of Poverty (Cornell Poverty Line)

Year	Incidence	Intensity	Severity
1986	-0.76	-1.29	-1.67
1987	-0.68	-1.22	-1.59
1988	-0.75	-1.29	-1.66
1989	-0.60	-1.14	-1.51
1990	-0.67	-1.21	-1.58
1991	-0.69	-1.23	-1.60
1992	-0.76	-1.30	-1.68
1993	-0.81	-1.35	-1.73
1994	-1.01	-1.58	-1.99
1995	-0.88	-1.42	-1.82
1996	-0.86	-1.41	-1.80

Table 4.3 Guinea: Evolution of Growth Elasticities of Poverty (GOG Poverty Line)

Year	Incidence	Intensity	Severity
1986	-1.10	-1.67	-2.11
1987	-1.01	-1.57	-1.99
1988	-1.09	-1.66	-2.09
1989	-0.93	-1.48	-1.89
1990	-1.00	-1.56	-1.98
1991	-1.02	-1.59	-2.01
1992	-1.10	-1.68	-2.11
1993	-1.16	-1.74	-2.19
1994	-1.23	-1.83	-2.29
1995	-1.24	-1.84	-2.30
1996	-1.22	-1.82	-2.27

MANAGEMENT CAPACITY

4.31   As stated earlier, the economic and financial reform program (PREF) launched in 1985 was seen as the only way out of the legacy of the centrally planned economic development in Guinea. The content of the program was very sound and indeed led to initial positive results. *However, the limited nature of these results may be linked to the severe weakness of management capacity available in the country.* Of course, this limited capacity itself is a reflection of the extremely low human capacity resulting from the policy failures.

4.32   *Given the low level of human capital within the society at large, it is no surprise that the skill level within the civil service is quite low and unable to meet the requirements of the management of a market economy.* Furthermore, a Civil Service Reform Management Review performed in 1994 (in collaboration with the World Bank) contains *evidence of a civil service characterized by an incoherent structure and an irrational mode of operations.* The incoherent structure stems principally from the

constraints ways must be found to provide access to adequate financial services, for informal sector operators on a sustainable basis. *The design and the implementation of such a policy must be especially targeted at women, ensuring that they not only increase the productivity of their current enterprises but also to empower them to expand into the traditional activities dominated by men.*

4.41 The fact that most micro-enterprises in the informal sector tend to be headed by women who also form the poorest expenditure quintile would suggest that programs designed to promote informal sector activities should be targeted at female-headed enterprises.

skills to operate in the formal wage labor market. In this respect, the informal sector potentially holds a key to the solution of this problem, particularly in this context of public sector retrenchment imposed by the necessities of policy reforms. In Guinea, it is estimated that at least two-thirds of the economically active population are employed in the informal sector.[50]

4.37   Mills and Sahn present evidence that, *on average, poor households derive a higher share of their revenue from independent micro-enterprises, located in the informal sector than from other activities.* This shows that informal sector development has direct implications for poverty alleviation in Guinea. Most micro-enterprises in Conakry (about 73%) involve *commercial activities.* Most are headed by women, generally with less education than their male counterparts, who tend to reside in households with the lowest per capita consumption.

4.38   The next most important class of enterprises in this sector is that of *small industry.* These tend to be more capital-intensive and headed by men. *These observations suggest that women may be facing some discrimination in the credit market. Such discrimination, combined maybe with the low level of education, makes it hard for them to start small business in the non-commercial sector.*

Table 4.4 Guinea: Sectoral Distribution of GDP

Sector	Informal Sector	Formal Sectors	Total
Primary	46	4	29
Secondary	12	70	34
Tertiary	42	26	37
Total	100	100	100

Source: Walker (1995:70)

4.39   There are both individual and environmental constraints to informal sector development in Guinea. *People operating in the informal sector, regardless of gender, are limited by their lower level of education as compared to the general population, particularly those operating in the formal sector.* At the environmental level, Walker reports that such development is constrained by *poor infrastructure in transportation and communication.* This, in turn, restricts the expansion of enterprises that may prove locally profitable. She also notes the limited access to *formal financial services, and therefore these enterprises cannot borrow for medium to long-term projects.*

4.40   Given the important role that the informal sector plays in providing livelihoods for the poorer segments of the population, it is crucial that any poverty alleviation strategy address these constraints to the sector's development. *In particular, consideration must be given to the establishment of a proper regulatory framework that encourages the development of this sector.* Furthermore, with respect to purely financial

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[50]   Walker (1995).

drugs being scarce in many rural areas and facilities being insufficiently staffed and equipped. While efforts have been initiated to reverse this trend, the failure of the system at peripheral levels has led to inefficient use of higher level facilities, with hospital resources being used to treat many simple cases.

5.5 Over the past several years, the Ministry of Health (MoH) has responded by developing a set of action programs and operational targets that give priority to strengthening primary level services and seeking to redistribute the benefits of public spending for health in favor of the most disadvantaged and vulnerable social groups (women and children in rural areas). The implementation of each program is under the direct control of specific MoH units, and a central coordinating, monitoring, and evaluation unit has been created to guide the programs' implementation. Nevertheless, resources are highly strained, and the percentage of the government's recurrent budget allocated to the health sector is too low to allow for even basic services at the current population level, even if resources were efficiently allocated and the budget was fully implemented.

5.6 In the education sector as well, the government launched in 1984 a program of reform and rehabilitation to improve the operation of the educational system and to make it more responsive to the needs of the population. In the educational sector, the reform included placing educational administration under a single ministry, reorganizing regional educational management, rationalizing higher education, extending secondary education one year, and providing in-service training for teachers. Although some progress was made, the reform program did not address many of the sector's fundamental constraints, and resource allocation was slow to follow the declared policies.

5.7 In response to the disappointing outcome of the previous reforms and in recognition that the education sector was under-funded, the Guinean government prepared a program to address the major issues in the sector as an intrinsic part of the country's macroeconomic adjustment program. This new reform program, which was adopted at the end of 1989, attempted to give highest priority to improving basic education services, particularly in rural areas, while acknowledging the constraints imposed by the government's plan of overall fiscal austerity. Specifically, priority was to be assigned to key cost-effective pedagogical inputs and primary school construction with community participation in rural areas. Expansion of higher education was to be delayed and no major investments were to be made in the sector for research facilities or associated institutes, although qualitative and efficiency improvements would be sought. At the management and operations level, priority was to go to training, technical assistance and essential operating funds to promote efficiency gains, implement revised norms and standards, and to build sector management capacity. The present state of the sectors in this context will be examined in the following sections.

5.8 While extensive reform has taken place during the Second Republic, more efficient allocation and use of public resources is needed within key social sectors. In addition, questions remain about the affordability of current sectoral strategies and

5. HUMAN CAPITAL DEVELOPMENT

5.1 *It is now commonly accepted that for economic growth to be sustainable and equitable, it must involve the poor in a significant way.* That is, they must have access to the necessary productive assets such as land, water, credit and markets, productive employment opportunities, and above all they must have access to essential social services that enhance their human capital such as health and education.[43]

5.2 The issue therefore arises as to what extent current social policies (existing institutions, their mode of operation and the funding of such service) do enhance human capital formation by the population at large and the poor in particular? To what extent do individual willingness and ability (private costs of existing public services) determine the use of available services?

5.3 For Guinea's citizens in general and the poor in particular, *the social sector in Guinea can be a key contributor to Guineans' overall living standard.* As one of the poorest nations in the world, however, living standards are reflected in extremely low health and education indicators, and the pervasive shortcomings of available social services. The requirement of maintaining a sound macroeconomic framework in the face of fluctuating world prices for Guinea's main export (bauxite) and a weak non-mining revenue base imposes the need for a careful, efficient and effective allocation of available funds for public investment to both social and economic infrastructure. *In recent years, expenditures on social sectors has declined to a figure that is low even by regional standards, which are already lower than the average for developing countries.*

PAST DEVELOPMENTS IN SOCIAL SECTORS

5.4 The new government has committed itself to overhauling the health system and gave priority in the health sector to developing curative and preventive services at the primary level, with a particular focus on previously neglected rural areas. Despite the government's stated goals, better allocation of existing resources has been slow to materialize because of *weak capacity* in the government to implement policy directives and an apparent *lack of commitment* toward improving and protecting basic health services. The system remains weakest at the prefectural and sub-prefectural level, with

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[43] This chapter is based on work performed by the Health and Education Units of AF5PH, and contributions from AF5CO, within the context of the ongoing Public Expenditure Review in Guinea.

Current Institutional Setting

5.11   The Ministry of Health (MoH) is responsible for the formulation and delivery of national population, health, and nutrition policy in Guinea, including the overall strategic planning, management, administration, and coordination of the country's health system. The health care system is based upon 33 prefectures in the four major geographical regions which contain 376 health centers (*centres de santé* or CS) and 347 village health posts (*postes de santé* or PS).   In addition, there are 33 prefectural hospitals and four regional national hospitals, two of which are in Conakry.   Management and coordination of health activities in the regions are the responsibility of Regional Health Inspectors, and a Prefectural Director of Health is responsible for overseeing technical activities, staff performance, drug distribution, and contacts with local administrative authorities in each prefecture.   The activities of the CS are primary care, infant health, normal maternal labor (in rural areas), family planning, simple diagnostics, sale of essential drugs, and information.   The activities of the PS are promotion of health education, growth surveillance of infants and pregnant women, primary care, sale of essential drugs, and referral to the CS, since the health system is based on patient referral from lower levels to more specialized services at higher levels.   More than a dozen maternal and child care centers, located mostly in urban areas, are also part of the public health care system. Pharmaguineé, a former public enterprise now under the MoH, is responsible for the procurement and distribution of drugs to public health facilities, but the supply and distribution of essential drugs is highly dependent on external donors and NGOs who heavily supplement the provision of health services by financing infrastructure investments, basic operating costs, drugs, and some salaries.

5.12   Formally, entry into the public health system is at the sub-prefectural health center level (CS or PS), but problems that cannot be dealt with at the health center level are in principle referred to the prefectural hospital.   At the highest levels, the regional hospitals and two university hospitals provide tertiary care.   Many health centers have now adopted cost-recovery schemes, whereby fees are collected for the different health services provided, in particular the prescription and direct provision of drugs to patients. However, these fees do not fully cover the excessive costs for personnel and other specific services; hence, most health centers remain dependent on centralized financial support.

5.13   In addition to the public health system, the government has made continuous efforts to promote private sector participation, including non-profit organizations, in the health sector.   While the number of private practitioners and clinics remains small, more than 100 private pharmacies have been established.   Of course, several thousand traditional healers continue to provide health services and several traditional birth attendants are available for deliveries in most villages.

inefficient allocations may crowd out funding for priority expenditures. In Guinea, expenditures on the social sectors declined by 25 percent between 1991 and 1994, although their share in total expenditures remained constant during this time (near 19 percent). These figures are low even by regional standards: expenditures on the social sectors in Sub-Saharan Africa averaged 26 percent between 1985 and 1989, and the average in all developing countries is 38 percent (1990). Further examination by sector reveals that while Guinea's spending on education has now reached SSAs average of the previous five years, health expenditures still remain almost 30 percent less than the SSA average between 1985 and 1990.

5.9   Relative to the high incidence of preventable diseases in Guinea, insufficient resources are allocated to primary and preventative health programs, and much of the expenditure disproportionately benefits wealthier citizens. In fact, public health care is relatively more expensive for the poor than private health care is for the wealthy. Furthermore, the health care that is available is generally concentrated in Conakry and in a few other geographical areas, limiting access to and the quality of services in many other, particularly poorer and rural, districts. Integrating the disparate elements of Guinea's health care system while ensuring that the poor increase their access to primary and preventive health care in the context of continued fiscal austerity is the difficult task that the Guinean government now faces in the health sector.

5.10   In the education sector, the government's reforms that were meant to deal with the legacy of a poorly functioning educational system have had some positive results: an increase in gross enrollment rates in primary education, notably among girls; improved budgetary management; and decentralization at several government ministry levels. As with other sectors, however, the government still faces a number of serious problems. Although enrollment rates have greatly increased, they are still very low, as are completion rates. Since the poor are less likely to enroll in schools, they receive a smaller proportion of public expenditures on education; poor children (especially those from rural areas and girls in particular) have far lower enrollment rates than wealthy, and the situation is not likely to improve as long as public expenditures on education continue to decline (1991 to 1993). At higher levels of education, wealthy students benefit even more, creating inequalities in per capita recurrent costs by educational level. Finally, Guinea's higher education system has not seen any comparable reform and remains grossly inefficient, although it continues to absorb more than one third of public education expenses. With private sector education among the least developed in the region, the government must ensure continued reform and renewed commitment if its current strategy is to have any hope of long term success.

capita. The decline in public financing in real terms and the imbalances due to an insufficient and declining current non-salary budget limit the effectiveness and efficiency of the sector. In response, the government in 1995 increased the current budget for health from 3.9 percent of the total budget to 5.4 percent. But despite the increase, the current budget for health remains inadequate because of the large proportion of the funds used for salaries (94 percent in 1994) and incomplete budget implementation.

5.18   Local governments also allocate part of their budgets to the health sector to finance salaries of certain personnel and to defray other operating costs. These expenditures are usually financed through local tax revenues and by some direct contributions from the central government. Although local government, such as those at the prefecture level, in principle may allocate up to 30 percent of their tax revenues to health and education, the total sum is quite small in comparison to the expenditures budgeted by the central government.

5.19   During the 1991-1994 period, expenditures for primary care, secondary care, tertiary care and administration represented an average of 24 percent, 22 percent, 22 percent and 18 percent of the total expenditure on health, respectively. This allocation is inconsistent with the government's official sector policy stated above, and there have been no recent increases in the proportion of funds allocated to primary health care. However, as noted earlier, many of the non-primary level health establishments (such as hospitals) often diagnose and treat primary ailments. Of greater concern is the inadequacy of current non-wage expenditures for primary health care facilities. While the bulk of these expenditures go toward purchasing drugs, the amount remains too small; in 1994, public expenditure for medicine was increased to 64 percent of current non-wage expenditure, but this totals less than US$ 0.25 per capita, far less than the regional expenditure of US$ 2 per capita. In addition, the share remaining for other non-wage expenditures, such as infrastructure and vehicle maintenance, is grossly insufficient, creating difficulties in supervision, patient referral, and vehicle operation. Finally, government policy to redeploy health personnel to the primary care positions is not visible in expenditure figures. In 1991, salaries of personnel in primary health care represented 29 percent of total expenditure for wages, and secondary, tertiary, and administration personnel comprised 36 percent, 16.5 percent, and 18 percent of the total respectively. These figures have generally remained the same over the past several years, casting doubt on the government's capability of implementing its stated policy.

Use and Poverty Effects of Health Services

5.20   In Guinea, the health care system presently benefits the wealthy far more than the poor, even though access to health care centers has improved considerably over the past five years. This is due to many factors, including geographic, cultural, and monetary considerations. In 1995, about 56 percent of the population outside Conakry had access to CS or PS level health facilities within 5 km and 81 percent had such access within 10 km. The latter figure varies by region between 74 and 85 percent. Utilization rates of health facilities also vary across the regions: for primary care, 31 percent of the

5.14   Available resources are often concentrated at the hospital level, encouraging those people with access to hospitals to use that level for routine services. Health centers and posts are often isolated geographically, resulting in a weak system of logistical support and supervision. Although the distribution of physical facilities throughout the country is reasonably equitable, rural facilities are often disadvantaged in terms of staffing, equipment, and operating funds.

## Government Sector Strategy and Spending Pattern

5.15   The government's *overall objective* for health care system is to improve the quality and expand the coverage of health services, particularly those oriented towards women and children. In order to do this, the government is to concentrate resources on expanding and improving primary health services, particularly in rural areas, and on developing programs to combat the most prevalent diseases and reach the most vulnerable groups. As budget resources are obviously constrained in this regard, greater efficiency in the planning, management, and organization of the health care system is the key to its success. The government's strategy is to make more effective use of existing resources by: a) strengthening the MoH's organizational structure with a view towards consolidation and decentralization of responsibilities; b) strengthening the managerial capacity of the MoH to (i) allocate the sector's scarce resources, both human and financial, along the lines of established policy and priorities, (ii) implement the sector's action programs, (iii) collect, analyze and utilize epidemiological, management and financial data; (iv) prepare and monitor future programs in the sector; and (v) decentralize decision making in the sector; c) improving the quality and frequency of in-service training programs and routine supervision and inspection at all levels in order to improve the quality of the MoH's staff resources; d) ensuring the rational procurement and efficient distribution of low-cost essential drugs to all levels; and e) encouraging the provision of family planning, nutrition, and public health education to women and communities.

5.16   Continued mobilization of resources for the health sector is to be aided by: a) increasing the relative level of the government's budgetary contribution to the health sector; b) introducing cost recovery measures at all levels of the system to mobilize additional resources for sector operations; c) promoting private initiatives in health care including physicians, clinics, pharmacies and imports through wholesale pharmaceutical companies; and d) obtaining support from donors to expand the health delivery system. The government has developed a set of action programs to operationalize the above policy measures, and while the programs are far reaching and ambitious, progress in initiating and sustaining some measures has been slow and will require stronger government commitment, particularly for politically sensitive areas such as personnel redeployment, allocation of recurrent expenditures, and cost recovery.

5.17   Although public health expenditures as a share of total expenditures have been fairly constant, they have been declining at an alarming rate in real terms over the past several years. During the 1988-1994 period, they fell from US$ 7.1 to US$ 1.8 per

purposes when the MoH spends twice as much of its current budget on hospital care, rather than on primary care.

**Figure 5.2   Guinea (1994):   Per Capita Public Expenditures on Health**
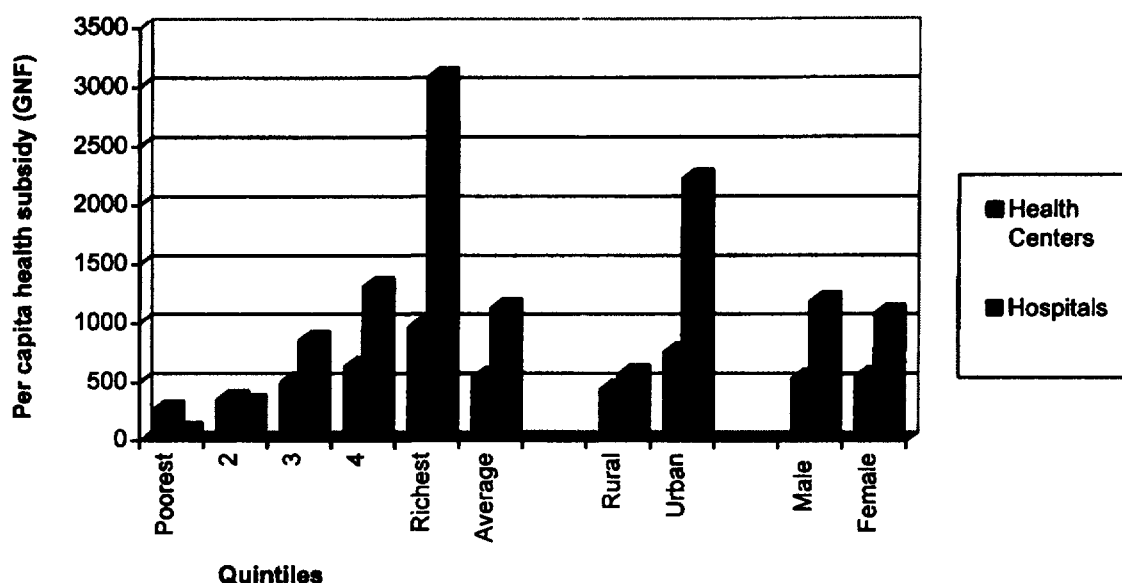
5.22   At the primary health care level, the differences in health care facility utilization are not as dramatic.   The poorest quintile receive GNF 265 per capita, while the wealthiest receive GNF 975 per capita.   Expenditures are also higher in urban areas and especially the capital, Conakry, where they are twice as high as in other regions (see Figure 4.3). *Thus it is clear that the government's policy to redeploy resources to primary care levels has yet to be effectively implemented.*   Across the board, the expenditure figures favor the wealthy; in hospital expenditures, the poorest quintile receives about 2 percent of public expenditures while the wealthiest quintile receives about 55 percent.   This distribution is among the most unequal in Africa, and is generalizable to all public health expenditures: the poor receive a smaller share of public health expenditures than their share of the population.   Even when considering public expenditures on primary care health centers, the poorest quintile receives 10 percent while the wealthiest receives 36 percent.

population outside Conakry utilized CS or PS (37 percent for inhabitants within 5 km and 22 percent for inhabitants within 10 km); for prenatal consultations, a comparable estimate is 68 percent overall. However, obstetrical care utilization is only 15 percent overall. In comparison, the utilization rates in Conakry for primary care, prenatal consultation, and obstetrical care are 23, 63, and 23 percent respectively, reflecting the availability of hospital care. Referral rates from the CS level to regional hospitals are quite low, estimated at about 1 percent.

Figure 5.1   Guinea (1994): Health Facility Use for Illness by Quintile
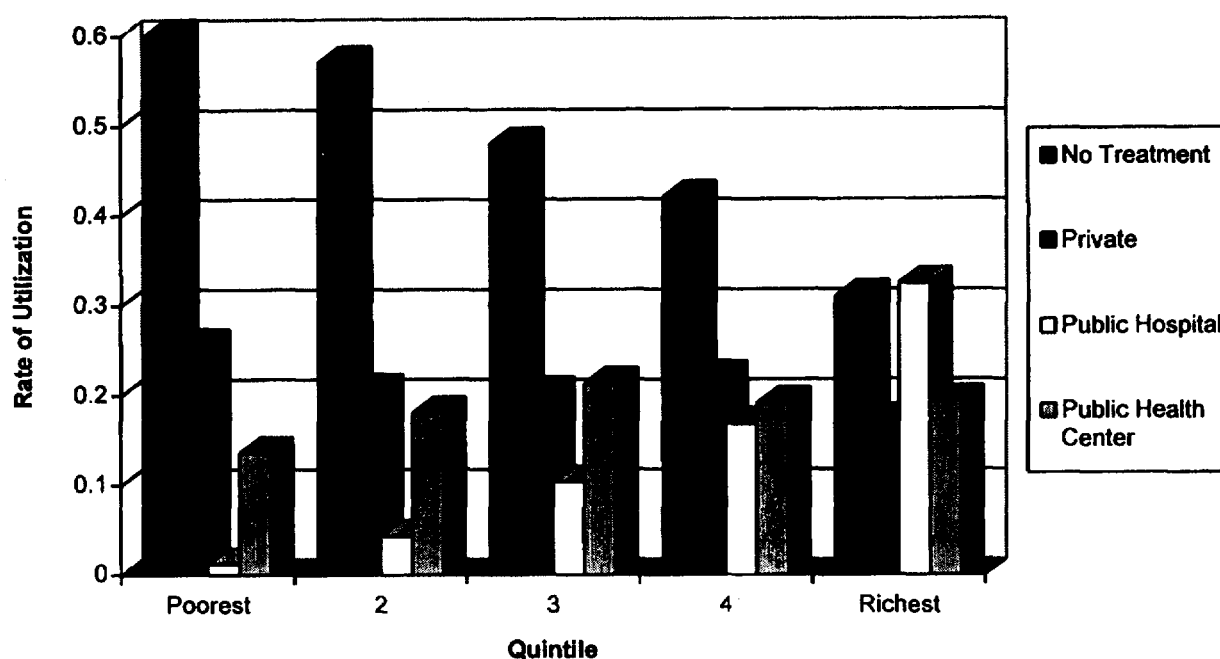
5.21   As Figure 4.1 indicates wealthier groups access the health care system far more than the poor. Based on the 1994 IHS, of individuals who reported an illness in the previous month, 60 percent of the poorest quintile did not seek any treatment, compared with about 30 percent for the wealthiest quintile. The poor that did seek treatment overwhelmingly relied on private traditional medicine; only about 12 percent used the public health system. In contrast, more than 50 percent of the wealthiest quintile used public hospitals, which are far more expensive than other health care facilities. The result is that wealthier Guineans receive much larger per capita public expenditures on health than poorer Guineans; the per capita figure is GNF 4,062 for the wealthiest quintile and only GNF 346 for the poorest quintile (see Figure 4.2). This gap is primarily attributable to the unequal distribution of hospital expenditures, as the wealthiest quintiles absorb almost all of the hospital budget. Given that only the wealthier groups use hospital services, the government's policies and actions are at cross

it is likely that costs associated with travel and waiting contribute to making public health care too expensive for the poor. Undoubtedly, the social determinants of health service utilization are also complex and deserve extensive study to determine their contribution.

EDUCATION AND TRAINING SECTOR

Current Institutional Environment and Outcome

5.25   The education sector in Guinea is similar to other francophone countries in Africa; it consists of six years of primary level, seven years of secondary level split into a four-year cycle for lower secondary and vocational training and a three-year upper secondary cycle, and five years of tertiary level education. In addition, certain vocational and technical education programs of various length are available at the secondary and tertiary levels. In the 1993-1994 school year, the system accommodated 598,290 students, with 79 percent in primary school, 18 percent in secondary school, 1.4 percent in technical schools and 1.4 percent in universities. In addition, the education system hosted 1,049 participants in a teacher training program. Responsibility for the educational sector is divided   along the lines of pre-university and higher education. All pre-university structures are directed by the Ministry of Pre-University Education and Professional Training (MEPUFP) through eight regional academic inspectorates, in turn administering 38 prefect-level directorates of education and 210 sub-prefect level pedagogic delegates. Higher education in Guinea is managed jointly by the Ministry of Higher Education, Scientific Research, and Culture (MESRC), three sectoral ministries, and some of the institutions of higher learning themselves.

5.26   Over the last decade, the Guinean government, in recognition of the legacy of the poorly designed and ineffective education sector of the First Republic, has implemented a series of reforms that sought to increase enrollment in primary education, improve access to education for the most disadvantaged groups, and increase public spending on education,   particularly at the primary level. The reforms have in many ways been successful: gross enrollment rates have increased notably; budget management has been improved; and the MEPUFP has decentralized and increased the efficiency of many of its functions. Nevertheless, the educational system still requires much improvement, and current goals require significant reallocation of resources if they are to be accomplished.

5.27   Guinea's pre-university educational system has improved considerably since the first phase of the latest reform program (Programme d'ajustement sectoriel de l'éducation, PASE, 1990-1994) was begun. The program has increased the gross enrollment rate (GER) in primary schools from one of the world's lowest, 29 percent in 1989, to 40 percent in 1994. Currently, the government appears to be ahead of schedule on increasing gross enrollment to 53 percent by the year 2000. The success of recent programs can be attributed to the government's development of a ten-year strategic plan covering the whole education sector and incorporating realistic assumptions about the country's macroeconomic context. The elements of the program included: an ambitious school construction program supported by community groups, NGOs and donors, and

**Figure 5.3 Guinea (1994): Per Capita Public Expenditures on Health, by Region**
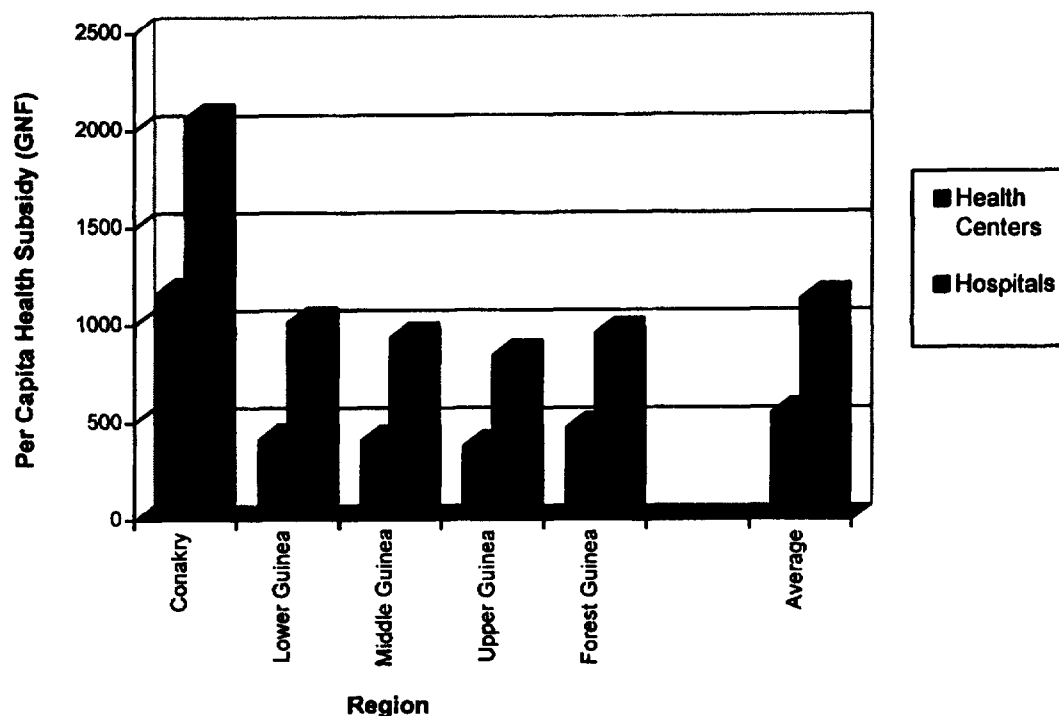
5.23   The government's health care system, on average, contributes 55 percent of total per capita expenditures on public health, and households contribute the remaining 45 percent themselves.   Public health expenditures are more important for the poorer groups, contributing a larger share of the total spent on public health; total spending on health increases dramatically by expenditure quintile, and per capita spending on public health is 13 times larger on the wealthiest quintile than for the poorest.   Relative to household expenditures, the burden of health care spending on the poor is greater than on the non-poor.   In fact, public health care is more expensive for the poor than private health care is for the wealthy.   Also, the poor spend almost twice as much of their nonfood expenditures on health as the wealthy do.   Finally, poorer groups spend more on private health care (primarily traditional health services) than public health care.

5.24   One can speculate as to why the poor choose not to use public health services any more than they do, and the answer is, of course, due to more than just cost recovery fees. While they may pay more for fees in the private sector, the consultation fee for a visit to a public sector facility is added to travel time, perceived level of benefit, and opportunity costs for that time.   All in all, public sector services are much more expensive for the poor than private sector services.   For example, a visit to a public health center takes an average of 9 hours, whereas a visit to a traditional caregiver takes less than 1 hour.   Thus,

Figure 5.4 Guinea (1992-1993): Gross Primary Enrollment Rates by Region

Region
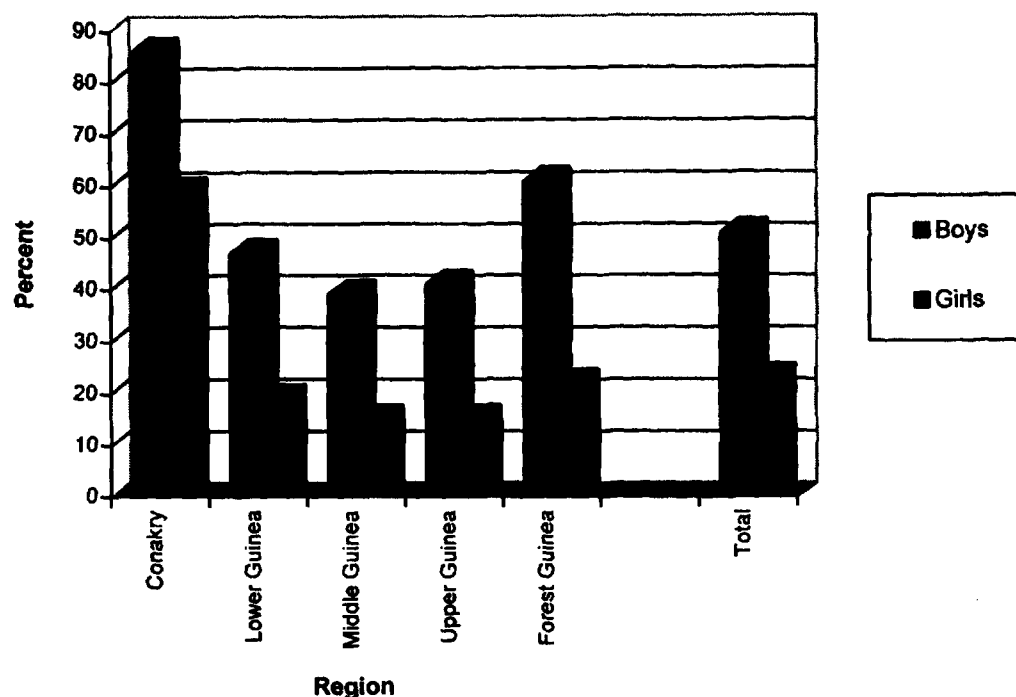
5.30   The quality of education in Guinea must be improved as even those students who graduate normally repeat more than one year. Student progression to the next grade is still decided by teachers based on students' performances on tests of questionable accuracy. High repetition rates of 20 percent greatly increase the unit cost of education and reduce system efficiency, taking up space that could be allocated to incoming students. Student failure is in part a by-product of weaknesses in the institutional system. Available input indicators imply still relatively low quality overall. Students average less than one textbook apiece and 24 percent of classrooms are considered to be in bad condition. While double shifting in urban areas and multigrade classrooms in rural areas are used to increase efficiency, the average number of primary students per teacher is 49 and varies between 39 and 64, indicating that the educational system at the pre-university level still requires significant changes to transform itself into a demand-driven system that can respond to Guinea's socio-economical needs.

5.31   Management of teaching personnel is also markedly undeveloped, but has been improving recently. In 1993, the government decided to base future hiring in the educational sector on a probationary period of supervised classroom teaching. Still, a major handicap lies in the lack of a systematic program for upgrading teacher skill through in-service training. For example, virtually none of the 2,200 teachers redeployed to primary level schools received short-term training in that regard. In 1994, a new directive was created to clarify the responsibility for teacher training, which was until

accompanied by implementation of low-cost construction norms and standards; an extensive redeployment program shifting over 2,200 teachers from administrative posts and secondary school positions to primary school classrooms; and reallocating budget expenditures toward the education sector, particularly primary education. The record so far demonstrates the importance of a long-term framework for education system support, and the need to integrate program elements into a coherent sectoral strategy.

5.28 Vocational training in Guinea is the domain of seventeen lower secondary Vocational Education and Training (VET) institutions located in the various regions, along with a small number of post-secondary programs. The programs offered in VET schools have remained the same for many years; the schools continue to operate separate from and without regard for Guinea's labor market needs. Although the government is committed to moving to a demand-driven approach toward vocational training, it must still develop the sector's management capacity and establish basic quality assurance, maintenance, and upkeep functions. Higher education institutions continue to absorb a large share of the sectoral budget while producing relatively low numbers of graduates who are of limited employability outside the public sector. The large policy shifts of the past two decades have served as a negative impact on performance, and indicators continue to deteriorate. Women, particularly, have lost their share of access, with numbers declining from 19 percent attending in 1984 to 6 percent presently. Higher education institutions are overcrowded and under-funded, with a large build-up of internal arrears for food, equipment, and supply purchases. Monthly stipends to students alone represent 48.7 percent of the institutions' budgets and 21.3 percent of the entire MESRC budget.

5.29 Notwithstanding the relative improvement throughout the pre-university sector, only 12.8 percent of first-year enrollees went on to complete the primary level, and thus only 3.7 percent of the age cohort actually completed primary school; of this small group, only 5.7 percent were from rural areas and only 1.1 percent were girls. Large disparities in enrollment by region (see Figure 4.4), gender, and urban/rural location are still prevalent throughout Guinea. By region, Conakry has by far the highest enrollment rates, reflecting the fact that it is the main urban center, as well as the recipient of the largest amount of funding. Along gender lines, while primary enrollment rates for girls have increased from 19 percent to 23 percent between 1989 and 1993, the level of enrollment for all levels has remained at 32 percent for the past ten years. And the percentage of female teachers (less than 23 percent) is even lower than the percentage of female students. Finally, the differences between urban and rural enrollment is also great. The GER among rural students during 1993-94 was 27 percent for rural students and 78 percent for urban students.

times more than primary education. This trend appears to be difficult to overcome, although the government has expressed its commitment to focusing on primary education and disadvantaged groups; this indicates that non-economic reasons probably account for the staying power and expenditure share of higher education institutions.

5.36   Now in the second phase of the PASE, the overall objectives of the Guinean government are: (i) increasing primary school enrollment and completion rates, with a strong focus on girls and students in rural areas; (ii) improving teaching and student learning at primary and lower secondary schools; and (iii) strengthening education system management.

Use and Poverty Impacts of Education Policy

5.37   Per capita expenditures in education, similar to health, reveal *large inequalities between income groups*, and are representative of enrollment rates among the groups. Total per capita public expenditure is about nine times greater for the wealthiest quintile (GNF 19,285) than for the poorest quintile (GNF 2,116).   This bias in per capita expenditure is primarily due to government spending for higher education, which is received almost exclusively by the wealthiest groups.   Per capita expenditure is also biased towards urban areas and boys (since enrollment for boys is much higher than for girls).   Even at the primary level, where the government is focusing its efforts, per capita expenditures are still more than twice as large for the richest quintile (GNF 4,088) than for the poorest (GNF 1,768); moreover, the 4th quintile receives an even higher share (GNF 5,244).   Noting that the poor usually have larger families than the wealthy, their children's low enrollment rates in school provide an even smaller amount of public expenditure in education than they would have received otherwise.   At secondary and higher levels of education, the expenditures are even more biased: the richest quintile receives per capita expenditures that are more than ten times larger than the expenditure for the poorest quintile.

5.38   Examining educational expenditures along urban/rural, regions, and gender dimensions, the picture is similar to other sectoral expenditures.   Even when vocational schools and university-level expenditures are discounted, per capita expenditures for primary and secondary education are strongly biased towards urban areas. At the primary level, urban expenditures (GNF 4,789) are almost twice as high as in rural areas (GNF 2,795).   At the secondary level, the urban/rural difference is even greater, GNF 3,031 to GNF 467 respectively.   As discussed earlier, the differences are explained primarily by lower enrollments in rural areas.   Figure 4.5 indicates that although regional expenditures are distributed fairly equally at the primary level, this changes markedly at the secondary and tertiary level, where expenditures are highly concentrated in urban areas, especially Conakry.

then under overlapping directorates. Further technical assistance will be necessary to continue improving teaching quality and personnel management.

Government Spending and Sector Strategy

5.32   Sector finances have improved greatly over the past several years. Annual budgets are now prepared well in advance, with each budget line backed by a corresponding action plan. The MEPUFP's budget preparation process is monitored by a PASE steering committee and quarterly reports on commitment and expenditure are published regularly. Educational sector procurement is increasingly handled at the regional and prefectural levels through decentralized procedures. Capacity for such decentralization was strengthened through a USAID program to initially train MEPUFP accountants at the regional and prefectural levels in budget preparation, execution, and submissions of quarterly reports. However, auditing capacity is still weak and the budget unit only has a limited capacity for conducting financial analysis.

5.33   Tuition remains free at all education levels and the government finances almost all recurrent spending for education. Over the past several years, government financing of education has increased from 12.9 percent of the national recurrent budget (1990) to 26.1 percent (1993). Of this amount, higher education continues to receive a disproportionate share of recurrent and investment budgets, but that share has been decreasing in recent years. Budget redistribution in favor of primary education is slowly taking place, increasing from 32 percent in 1990 to 35 percent in 1993; an increase to 42 percent is planned by 1999. Management of maintenance and construction activities is shared between the ministry, donors, and NGOs, but is funded almost entirely by donors, local communities, and NGOs.

5.34   Investment expenditures in the education sector have fallen from a peak of 8 percent of total investment expenditure in 1991 (attributable mainly to increased donor aid supporting PASE) to 2 percent in 1994, but current expenditures have remained stable at about 20 percent of total current expenditures. Wage and salary expenditures have evolved differently, rising from 50 percent in 1991 to 60 percent in 1992 and to 67 percent in 1993; however, the budget for wages and salaries during this time declined by one percent annually, from 50 percent to 47 of the total education budget. These differences reflect both the increase in wages and the weak performance of the investment program.

5.35   The shares of primary education in the budget started to decline after 1992, from 51 percent to 42 percent in 1993. Furthermore, shares of actual expenditures on primary education were lower than budget shares for both years, indicating that primary education did not receive disbursement priority. In contrast, the share of tertiary education in the budget increased significantly, from 25 percent in 1991 to 33 percent in 1993. The actual shares for both years was higher than the budgeted share, and expenditures in 1993 on tertiary education actually exceeded those on primary education by GNF 3.6 billion. This has led to significant inequalities in unit recurrent cost, which in higher education are 54
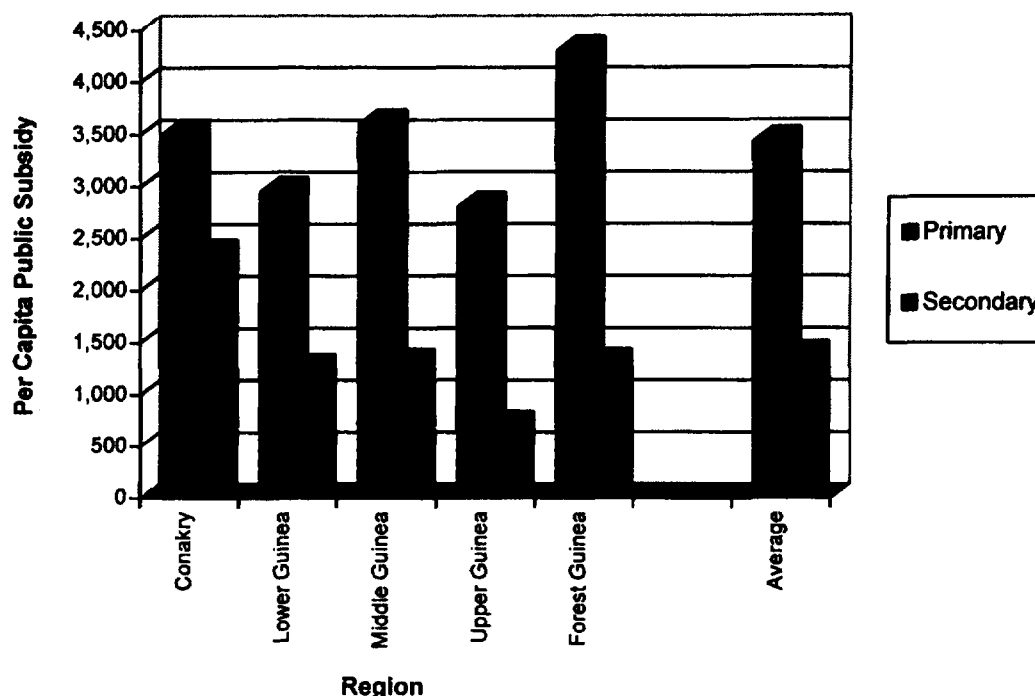
relatively low, and there may be scope for increasing private contributions to education, especially for wealthier groups.

Figure 5.6 Guinea (1993-1994): Per Student Household Expenditures on Education

Quintiles
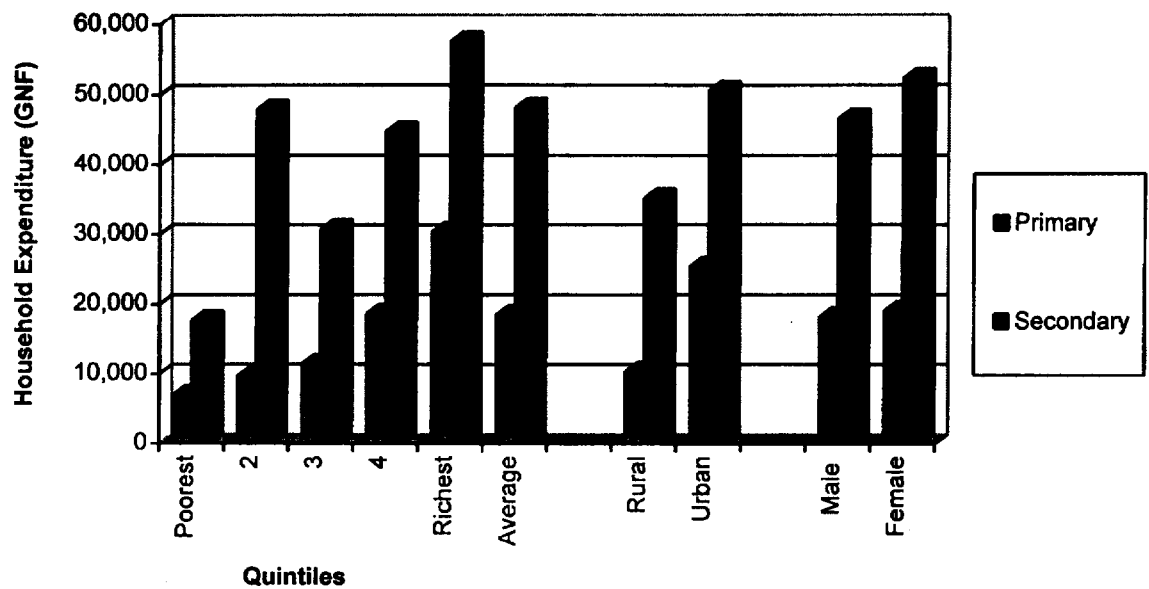
Figure 5.5   Per Capita Distribution of Public Education Expenditure by Region

5.39   Furthermore, in absolute terms, none of the education expenditures are distributed equally across the population; in other words, the poorest quintiles receiver fewer expenditures for public education than their share in the population.   Of the various expenditure groups, primary education is the most equitably distributed.   In contrast, university expenditures are overwhelmingly pro-wealthy; the wealthiest quintile receives more than 60 percent of public expenditures on university expenditure.   Compared to its regional neighbors, Guinea's distribution of educational expenditure is the most unequal, with the poorest quintile receiving 5 percent of total expenditure on education and the wealthiest receiving 44 percent.

5.40   It is clear in Figure 4.6 that household expenditure on education can be significant and increases according to education level.   Households spend an average of GNF 18,500 per student in public primary school and GNF 48,180 per student in public secondary school.   Households spend roughly equal amounts on boys and girls, but households in urban areas spend about two and a half more than those in rural areas at the primary level and more than five times more at the secondary level.   Results from the IHS indicate that the poor do not spend a higher proportion of their total nonfood expenditures on public primary and secondary education; in fact, the poorest quintile spend only 1 percent of nonfood expenditures per capita on education (primarily because so few children from the poorest quintile are enrolled in school).   As expenditures rise, spending for education as a share of non-food spending rises as well (except for the wealthiest quintile, where it declines).   Generally, it appears that household contributions to public education remain

6. TOWARD A POVERTY REDUCTION STRATEGY

DESIGN ISSUES

6.1 OBJECTIVE. Given a time-frame, an overall objective and a set of resources, a strategy is simply a sequence of choices aimed at attaining the stated objective within the assigned time span. An underlying view in this poverty assessment is that the *ultimate objective* of economic development is to *increase people's ability to live well*, with particular attention paid to the poor. This is an outcome of an interaction between an economic structure and the policy pursued. The structure of an economy may be defined in terms of resource endowments and the institutional setting (markets, government, family). The structure and functioning of these institutions explain the differences in resource ownership (such as physical and human capital) and in returns to the use of those resources. These factors are key determinants of poverty.

6.2 The analysis reported here has demonstrated that the current socioeconomic crisis stems from past policy mistakes exacerbated by structural characteristics of the Guinean economy. In particular, heavy government intervention coupled with an inward-looking development strategy led to a rigid and distorted economic system incapable of adjusting to the changing constraints and opportunities presented by the World economy. While trade liberalization under the second Republic has provided some correction, its effects have been limited by *poor implementation*. In this sense, *policy mistakes are the fundamental cause of poverty in Guinea as better policies would have produced a more resilient economy*. The failure to reach the full growth potential of the economy has led to increased poverty. The current government's efforts to redesign and implement, with the help of the international donors' community, a policy reform program, must be placed in a broader context of economic development. *The main objective driving these efforts, at least in the medium run, must therefore be the achievement of a flexible economic structure and the pursuit of equitable policies.*

6.3 The *flexibility of an economy and of economic policy is an important factor in fostering sound overall economic development*[51]. At this juncture, the issue becomes: what are the determinants of flexibility and what are the strategic choices that help achieve it? Killick (1993:47) defines a flexible economy as one in which ends and means are readily adapted to changing conditions. This implies that economic agents, both on

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[51] Killick (1993:45)

Box 5.1   Girls' Education in Guinea

Despite the recent increasing enrollment of girls in Guinea's primary schools (from 19 percent in 1989 to 29 percent in 1994, the gross primary enrollment rate for girls still remains one of the lowest in the world. This is particularly surprising given the high social and private rates of return to education in Guinea. In Conakry, for example, self-employed women with a primary education earn 36 percent more than unschooled women; those with secondary education earn 48 percent more. A persistent question remains why is girls' participation in the education system so weak?

To begin answering this question, the Government of Guinea has established a Commission on Equity, supported by USAID and other bilateral donors, to determine the key problems and to develop new strategies to increase girls' school participation. Studies conducted in this regard are beginning to shed light on the dimensions of girls' access to education. It appears that while most girls never set foot inside a primary school, those that do receive a qualitatively different education than boys.[44] These differences are mainly composed of family/household demand factors and policy/supply side factors. Societal factors such as the local functions of marriage, poverty or household income, household chores, and mothers' and daughters' workloads figure prominently in families' decisions to educate girls. In contrast, religion and culture seem to vary little across Guinea's regional lines. Even for girls who do attend school, both teacher and male students' attitudes and interactions with girls are a major factor of the discrimination adversely affecting girls in almost all aspects of their schooling. Other factors such as distance from home, sexual and hygienic issues, that have been documented elsewhere in Africa, also apply equally well to Guinea.

If the policy is to alleviate household and school constraints on girls' education, it must be publicized, enforced, and evaluating vigorously and continuously. Certain household factors can be addressed immediately, including the abolition of compulsory uniform requirements, the waiving of birth certificate registration, and the purchase of textbooks, all costly to poor families. Socio-cultural household factors such as parental attitudes towards girls' schooling and early marriage must be addressed over longer time horizons. School supply factors also require immediate attention. Initial steps are now being taken, in terms of both infrastructure and teachers, through a comprehensive program of primary school rehabilitation which includes the creation of latrines and other facilities. Also, informal student fees and student labor should be banned, and the widespread sexual harassment of female students should be publicized, with appropriate action being taken against the offenders. Finally, over the longer term, vocational education should be reformed to increase training opportunities for female students, and teacher training should be specifically organized to help primary school teachers become supporters and advocates of increasing girls' education.

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[44]   Summarized from *Developing Girls' Education in Guinea: Issues and Policies*, Sector Report, World Bank, June 26, 1995.

government. The targets generally pertain to market efficiency (goods and services and asset markets), internal and external balance, and poverty reduction. In this context, Tinbergen's rule states that one should use at least as many instruments as there are targets. Furthermore, the policy package must be internally consistent and achieve a combination of *efficiency* and *equity* at minimum cost.

STRATEGY FOR WELFARE IMPROVEMENT AND POVERTY REDUCTION

6.5   BLUE PRINT. The structure of a desirable strategy for overall social welfare improvement and poverty reduction in particular is well known. Its description may be found in many widely distributed World Bank reports such as the 1990 World Development Report on poverty, the 1993 Poverty Reduction Handbook and the 1995 World Bank Contribution to the Social Summit entitled *"Advancing Social Development."* In fact, given the acute limitation of human capacity in Guinea and for ease of reference, the design of a strategy for the country will rely more on the *blue print* presented in the latter publication.

6.6   *According to Becker (1995), a country's standard of living is primarily determined by how well it succeeds in developing and utilizing the skills, knowledge, health, and habits of its population.* This view is consistent with the human development approach adopted by the Government of Guinea in the context of the ongoing Program for Human Development spearheaded by UNDP. Furthermore, this view stems from the fact that there is interaction between investments in human capital and the structure and performance of the economy.

6.7   Past and more recent performance in living standards reveal that a lot remains to be done in order to improve the quality of life for the majority of Guineans and, in particular the most vulnerable. Given this objective for public policy and the fact that overall welfare is fundamentally determined by efficiency and equity considerations in the allocation of resources, the poverty alleviation strategy proposed below is a two-pronged approach which advocates the *formation of social capital* along with the promotion of *broad-based economic growth* in order to create productive opportunities for the built-up stock of capital.

6.8   There is increasing evidence for the commonly held view that improved performance in economic growth leads to poverty reduction. Jayarajah et al. (1996) review adjustment experience in 53 countries involving some 114 operations during the 1980-1993 period. In particular, the review tracks the impact on poverty and income distribution. They find that two-thirds of the countries successfully implemented policy reforms and the success translated into poverty reduction. The fundamental message of the study is : *"good macroeconomic policies and measures combined with relevant sectoral policies and appropriate public expenditure allocation provide a favorable environment for accelerating savings and investment , both necessary for sustained economic growth and poverty reduction."*

91

the supply and demand sides, are responsive to an efficient incentive system provided by relative prices and that both the institutional base and government policies do not thwart that responsiveness. The two key indicators differentiating flexible from rigid systems are the speed and cost of adjustment.

Box 6.1   Strategic Choices

In the pursuit of economic flexibility, important decisions have to be made on two fundamental issues: *the relative roles of the public sector and the private sector, and the relative openness of the economy.* Current choices in this context should be made in light of past ones. These strategic choices stem from the fact that economic growth may be considered an outcome of the dynamic interaction, on the one hand, between the private and public sector within the domestic economy and, on the other, between the domestic economy and the external environment. Recognizing that sound economic growth cannot be achieved without a distortion-free economy at home and a position of top competitiveness abroad, the current government has revealed its preference for working with and not against market forces in the context of an open economy. In this context it is advisable to adopt a pragmatic approach, since it is known that both the government and the market can fail, and that state intervention involves both costs as well as benefits. These considerations must be born in mind while attempting to redefine the role of the state in the new context.

It is noteworthy that an open-economy strategy is defined in terms of the relative profitability of producing for domestic or external markets implied by the incentive structure. Open-economy policies tend to make exports more profitable while closed-economy policies emphasize import-substitution. With respect to this issue, a policy stance is called price-neutral if international competitiveness is the key test of efficiency.[52] Thus the composition of imports and exports is determined by comparative advantage. In this context, it is still possible to have import-substitution in certain activities. But producers in those sectors would need no more protection than that provided by transport and other normal costs associated with imports. There are many advantages associated with an open-economy strategy, among those are X-efficiency,[53] more rapid innovation and productivity growth. In fact, Killick (1993:89) argues that openness is imposed by smallness in the case of a small economy. In such an economy with a small domestic market, producers can take full advantage of scale economies by selling on world markets. It is important to note here that comparative advantage (a country's relative efficiency in producing tradable goods) varies over time. It is therefore desirable for a country to be able to anticipate changes in demand and production conditions in the world markets.

Source: Killick (1993)

6.4   IMPLIED POLICIES. The specification of policies defining a strategy is determined by the objectives, the time frame and by the initial conditions as well. The choice should be made from the set of feasible policy instruments in light of their possible impact on selected target variables. Target variables are related to the objectives pursued by the

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[52]   Killick (1993:86)

[53]   International competition puts pressure on domestic producers to keep their costs to an unavoidable minimum.

the economy which, in turn, cannot be accomplished without a proper strategy for private sector development (including policies to promote the formalization of the informal economy) . In the search for a new tax base it is important that policy changes be progressive (as oppose to regressive) to avoid an undue burden on the poor.

Box 6.2   The Socioeconomic Role of Government

Economic performance and its distributional impact are determined by the interaction of the government with the private sector. Thus the role of the government must not be considered in a vacuum. The appropriate role of government must be assessed in terms of its comparative advantage relative to the market. The basic principle is that government has a distinct role to play in promoting both efficiency and equity. This responsibility stems from the fact that markets do not necessarily lead to efficient outcomes in all activities. Furthermore, society must provide its members with resources and opportunities. Just as markets can fail, so too can governments. *Some inherent limitations stem from the fact that government has both limited information about and limited control over the private sector.* In this context, the case of developing countries deserves particular attention. These countries are characterized by pervasive market failure and pronounced government limitations. Also there is a tendency in these countries to use government powers to promote special interests at the expense of the general interest. Reinventing government in the context of a changing world may entail imitating the market. *Thus government must be made more customer driven and performance oriented.* Government should use more market, in lieu of command and control, mechanisms.

In this context, the public budget is the policy instrument par excellence. Equity considerations may therefore arise both from the revenues as well as from the expenditure side of the budget. A possible distributional outcome of this process is to have low income groups receiving more in government services than they are paying in taxes, and vice versa for higher income groups. In considering the relative impact of taxes versus expenditure on income distribution, the tax system is less likely to be a major determinant of income distribution than public spending (particularly on education, health, nutrition, housing and road infrastructure.) *Efficient and effective spending on social sectors can promote both growth and equity.* It is to be emphasized that income distribution, at any point in time, is an outcome of past interactions between supply and demand subject to the distribution of resource endowments. As such, it is not immediately affected by government actions. However, it seems reasonable to expect good current social policy to affect income distribution a generation down the road.

Source: Stiglitz (1995)

6.14   The participation of potential domestic and foreign private investment in the long term development of Guinea may require an irreversible commitment of considerable amounts of funds. Such a commitment cannot be obtained in an uncertain environment, whether the uncertainty stems from an inadequate macroeconomic or regulatory framework. *Thus it is recommended that the current judicial reform be pursued and accelerated to create an enabling, stable and predictable business environment. In this context, particular attention has to be paid to the implementation of the new investment code, possible revisions of the labor code and the acceleration of ongoing financial reforms.*

6.9   In terms of the broader relationship between economic welfare and living standards as measured by social indicators, it is increasingly believed that *good performance in economic growth is the best social safety net there is, in the sense that it reveals the country's ultimate capacity to improve the living standards of the population.* In this context, Kakwani (1993: 328) presents results suggesting that both the level of economic welfare as well as changes in this variable do significantly affect improvement in the living standard. But as a matter of principle, it is to be noted that the outcome ultimately hinges (again) on *private and public choices.* When per capita income increases, people may chose to consume more of the commodities enhancing good health (nutritious food, medical and public heath services), education and leisure. However, they may also decide to consume more of harmful commodities, such as pollution, cigarette alcohol and animal fats.   Such a consumption pattern may not lead to improvement in the living standard.

6.10   As stated earlier the government is currently working with UNDP, the World Bank and other donors on the development of a policy framework to foster social development in Guinea. This policy framework will be promulgated in the form of a *"Lettre de Politique de Développement Humain" (LPDH).* A preliminary version of this document reveals that the proposed framework is no different from the blue print discussed above. In particular, it recommends that growth enhancing policies be pursued both at the macro and sectoral levels to address some structural imbalances in the economy: (a) weak capacity of the private sector; (b) the persistence of macroeconomic disequilibria; (c) the low productivity of the agricultural sector; and (d) the lack of diversification of the economy. On the equity side, the draft letter recommends that the government deal with both *regional disparities* and *gender differentials*.

6.11   To further specify a poverty reduction strategy for Guinea, we note that since 1985 the country has had good policies on the books but implementation has failed to deliver the expected results. We therefore concentrate attention first on the shortcomings that need to be addressed.

6.12   MACROECONOMIC STABILITY.   A stable macroeconomic foundation is a prerequisite for sustainable growth and poverty reduction. Some levels and financing methods of the public deficit may lead to high inflation and the crowding out of private investment.   Both of these outcomes would be harmful to the objective of poverty alleviation.   Inflation would harm the poor directly while limited private investment would restrict the growth potential and hence the ability to further reduce at least income poverty.

6.13   In the particular case of Guinea, work done in the context of the Public Expenditure Review reveals that the government has not yet succeeded in developing *a viable fiscal framework.* This stems from the excessive reliance on mining revenues and foreign aid for the financing of public expenditures. Both these sources of financing are deemed very uncertain. *Thus there is a need for the government to diversify its tax base. This necessarily implies measures to foster the diversification of the non-mining sphere of*

6.20   The current education system is perceived by many as ill-suited to the needs of the country. For instance, the programs offered in vocational education training institutions have remained the same for may years. *Schools continue to operate separate from, and without regard for, Guinea's labor market needs.*

Box 6.3   The Importance of Education

Education and training deserve the highest priority for two fundamental reasons:

(1) There is important *synergism* between investments in education and other aspects of social capital formation. The outputs of education, namely knowledge, skills, values and attitudes are critical inputs into civic order and citizenship, as well as sustainable and poverty reducing economic growth (World Bank, 1995). It is believed that the functioning of a decentralized democratic system of government is based on a set of shared values throughout society. Education can help create and disseminate those values and pass them from one generation to the next. In general, education may contribute to social capital formation by strengthening *civil institutions*, building national *capacity* and good *governance*.

(2) The rate of return to investment in education tends to be high compared to other investments. The new theories of economic growth emphasize the contribution from improved human capital and an increased stock of knowledge, and recognize the complementarity between human and physical capital. Within this context, the contribution of education is linked to the acquisition of individual skills and to the accumulation of knowledge at the level of society. The assessment of this contribution on the basis of the impact of education on productivity suggests that, in general and for countries such as Guinea with no universal basic education, education is an excellent investment. The rates of return are greater for primary education, followed by secondary and then higher education (World Bank, 1995).

The importance of education for poverty alleviation is based on the realization that poverty stems from the fundamental inequality in the current distribution of wealth. Education offers a way out of this dilemma. In general, the creation of human capital is equivalent to the creation and distribution of new wealth (World Bank, 1995). This proposition may be extended to the case of social capital, as the low earnings of the poor are a result of their lower level of human capital endowments and of the limited opportunities that are available to make a living out of these endowments. Well-functioning institutions should help minimize such discriminations.

Finally, education is known to have strong health and fertility externalities. Parental education, particularly education of the mother, has significant positive effects on the health of the children. Some of the health benefits of education are obtained through behavioral changes at the household level. There is evidence that the more educated the woman, the more likely she is to use medical and parental care services and family planning services.

6.21   As in many other fields, quality in education is a concept which is difficult to define and to measure. *Any chosen indicator of quality must focus on outcomes at both the individual level and societal levels.* Such indicators may be developed from the

6.15 To achieve its equity objectives and promote broad based human capital development, the government should seriously consider the *restructuring of public expenditures* recommended in the current public expenditure review.

6.16 RURAL DEVELOPMENT. Given that the majority of the people draw their livelihood from the agricultural sector and that poverty in Guinea remains an overwhelmingly rural phenomenon, it is recommended that emphasis be put on rural development. *The government lacks a coherent strategy in that sector.* A sound poverty alleviation strategy necessarily must include a major component consisting of policy and program actions designed to achieve lasting improvements in the quality of life of the rural population. Effective rural development will require measures to increase productivity in both agricultural and non-agricultural activities, and efficiency in the storage, processing and marketing of produce. Increased productivity and efficiency will require the availability of inputs, good feeder roads, effective transfer of appropriate technology and adequate research-extension services.

Given that small farmers dominate agricultural production in Guinea, policies and programs designed to improve their standard of living, and that of other poor rural households (through increased productivity and purchasing power), can be expected to have a significant multiplier effect. An increase in small farmer incomes should stimulate the demand for locally-produced goods and services, thus *strengthening the linkages between farm and non-farm productive activities.* It could also reduce rural migration to urban areas with a beneficial effect on urban poverty.

6.17 PRIORITIES IN HUMAN DEVELOPMENT. Investments in the social sector should be primarily aimed at i) expanding access to basic education, with a special focus on women, ii) improving the quality of education, and iii) increasing access (particularly for rural populations) to essential health services.

Increasing Access to Basic Education and Training with Special Attention to Women

6.18 The high rate of illiteracy in Guinea suggests that available resources should be redeployed in favor of universal primary education. Attention should be given to both formal and non-formal education. In the formal sector, effective measures are needed to improve pupils' enrollment and retention in the primary schools. Ways must also be found to attract and retrain young drop-outs and adults willing to improve their knowledge and skills through practical or vocational training.

6.19 Emphasis should be placed on girls education to reduce existing gender disparities with regard to access to basic education, and priority should be given to rural and poor urban areas.

6.26   Guinea is presently on an ambitious course in the education sector, toward universal primary enrollment by the year 2020. This strategy has required the shifting of resources to the primary level, a more holistic education strategy, the decentralization of management, and flexible financing. But the government's current and likely future budget constraints show weaknesses that must be addressed to continue its primary education strategy. Given the share of education in Guinea's overall budget (averaging 11 percent for 1988-1994), the government must reallocate funds toward education. Regionally, many francophone countries spend more than 40 percent of their current budget on education. The higher education and higher secondary levels are prime candidates within the education sector for restructuring, and expenditures will have to be reallocated from other sectors as well.

6.27   Private schooling in Guinea also has much room for expansion. While the government must retain its role in providing education as a basic service, private schools can accommodate wealthier pupils and capture the costs of some infrastructure and additional salaries, freeing public space for poorer students. Also, private vocational training centers have been expanding rapidly in urban areas, and more than 30 currently offer secretarial and managerial training. The higher education sector still requires large-scale reform. Financial and budgeting reform are needed along with rationalization of the remaining institutions of higher education. Continued improvement requires that the government perpetually reevaluates its programs and adapts to the evolving needs of the country.

Improve Health Outcomes for All

6.28   The largest health policy problem for the Guinean government is not its sectoral strategy, which is basically sound, but rather the *implementation* of the strategy and the timetable set for its completion. The government is aware of what still needs to be done (as this has changed very little): completion of health sector redeployment of resources towards primary health care programs; rehabilitation of infrastructure and the equipment of health centers and hospitals; increasing private sector participation in medical care and pharmaceutical delivery; and improved management of the health sector. The latter deserves special attention since the health system suffers from many of the same institutional constraints found throughout the Guinean public sector. The managerial capacity of the Ministry of Health, (MoH), remains weak and the current system cannot efficiently transform sector objectives into coherently implemented programs. A number of World Bank and other donor's projects have been seeking to strengthening MoH's strategic planning and management capacity, but it is still to early to reliably determine the extent of improvement.

6.29   Continued attention to administrative reform and improvement is therefore indicated, and the MoH's decision making capacity can be improved in a number of ways: investment criteria and standards for new investments; of ongoing enforcement of

notion of value added. For an individual, the value-added of schooling may consist of learning gains and increased probability of income-earning activity. For the country as a whole, the value-added of an education system may be judged in terms of improved governance, increased stock of knowledge and the ability of the system to produce an educated and adaptable workforce. A flexible workforce is essential to adjust to technological changes imposed by the integration of the world economy.

6.22   Quality education depends on the learning environment, which in turn is determined by the level and quality of inputs, and the structure of input mix. Effective teaching and learning involve the following five inputs: (i) The student's motivation and capacity to learn the required subjects, (ii) a subject matter to be taught and learned, (iii) a qualified teacher willing to teach, (iv) time for teaching and learning, and (v) tools for teaching and learning (World Bank, 1995).

6.23   Efforts to enhance the quality of education in Guinea should also include *a reevaluation of the content of existing curricula in terms of their relevance to the revised objectives of the various educational programs.* The current world economy is characterized by rapid technological change and international economic integration. *The pace of technological change and the rate of accumulation of knowledge define the rules for international competitiveness.* They further induce shocks through the labor market in terms of changes in the structure of employment. Survival in such a world economy requires an educated and adaptable workforce. Workers need to constantly acquire new skills instead of relying on a set of fixed technical skills for their entire working lives.

6.24   Given the above considerations, it recommended that *curriculum reform be aimed at increasing basic competencies in primary and general secondary schools.* This may require that the number of subjects be curtailed and adequate time be allocated for teaching fundamental subjects such as language, mathematics and science. It is desirable that any curriculum be designed and implemented with a focus on outcomes relative to these subjects. *This particularly requires the establishment of performance standards for students and teachers as well as administrators.* It also entails the development of assessment systems to monitor what is taught and learned and how resources are managed to meet agreed upon educational objectives.

6.25   A review of recruitment practices and in-service training may be required to ensure that teachers have adequate subject knowledge and the necessary pedagogical skills. It may be necessary to develop a modest program of continued education for teachers to ensure that their knowledge and skills are constantly updated and adapted to the evolving needs of their environment. It may also be useful to review the current system of incentives (financial and social) to sustain the interest and motivation of qualified teachers on the job. Naturally, any adjustment made in the incentive system must be consistent with available resources.

this end it has been carrying, with support from various donors, several programs for funding community-based micro-projects to improve the living conditions of the participants. *However, further investigation is needed to achieve a full understanding of the extent of vulnerability in the Guinean society.*

6.33 Safety nets are intended primarily for those among the poor who cannot fully participate in the socioeconomic activity of their community. They constitute mechanisms to prevent the vulnerable groups from falling into absolute poverty. However they may also be designed to help the poor reintegrate into the economy. In the particular case of Guinea, *a full picture has not yet emerged as to the identity of the target groups, and the extent and effectiveness of the traditional safety net.* It is, however, commonly held that the handicapped, old people living alone, homeless children (particularly in urban areas), and some castes in the rural areas are among the most vulnerable. But no statistical evidence is available to guide social planning. Some background reports to the *Lettre De Politique de Développement Humain* also list among the vulnerable small farmers, rural women, the urban unemployed and some micro-entrepreneurs in the informal sector.

6.34 It is now widely believed that social safety nets should be designed at the initial stage and as an integral part of economic reforms and not an add-on. Furthermore, it is more and more accepted that such safety nets could be designed to serve even the non-poor who would be adversely affected by the reforms.[54] Such an approach could buy the needed political support or consensus so essential for the success of the reform program. At this stage of the Guinean experience, it may be worthwhile investigating the following issues in order to factor the result into the next policy adjustment: (1) What are the target groups and their coping mechanisms? (2) What is the nature and the effectiveness of the current social security system (3) It is widely believed that the traditional system of solidarity is breaking down in the urban areas. What is the extent of this breakdown and is there regional variation involved? (4) What role could be played by intermediate organizations such as NGOs, municipal governments and organized local communities. The institutional capacity of these entities, as well as their willingness and ability to work with the central government, should be carefully assessed. (5) What are the political factors that would affect the feasibility of such mechanisms?

IMPLEMENTATION ISSUES

6.35 FEASIBILITY AND SUSTAINABILITY. In fact, the above discussion has produced only a list of what may be considered *desirable policy adjustments.* The real issue is whether such policy adjustments are *feasible and sustainable.* The answer to this question hinges on the extent of governance capacity in the country.

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[54] See World Bank (1995b:22.).

timely evaluation and correction; continued support and improvement of the sector's health and management information systems to make data available at the different health sector levels; continued training of staff at both administrative and managerial levels; stricter adherence to past policy directives, especially when it becomes necessary to reallocate personnel and other resources; and developing improved financial management of available resources. In addition, the government has committed itself in the past to the decentralization of some management responsibilities to health committees composed of locally elected representatives. The continued promotion of these health committees can be highly beneficial if they are allowed and able to assume much of the responsibility for the management, supervision, and promotion of health care services in their respective localities.

6.30   Further resource mobilization is necessary to improve health status in Guinea. Recognizing the need for fiscal austerity, it is still possible to prioritize health care objectives and allocations so as to increase the effectiveness of current expenditures. Additional resources still must be directed to primary health care programs to reach the minimum package of US $9 per capita, and the resources necessary can be obtained from tertiary health care programs.   Non-salary expenditures must also be increased to minimum acceptable levels. *Cost recovery programs must be continually analyzed to insure that the poor are not being required to pay more than they are able*; this implies the possible introduction of cost recovery in secondary and tertiary care, support for private sector development in tertiary care, and improvements in public service quality. Finally, the MoH's planning department must continue to improve its coordination with its counterparts in the Ministry of Planning and Finance and other government ministries with which it shares functions.

6.31   Focusing on sector quality and quantity, the government must ensure the completion and continued support of its essential drugs policy to standardize the use of basic medicines and to make them available to the public, especially the poor, at a reasonable cost. Attention must also be focused such that training and staff development is in line with the sector's human resource needs.   This will require the continued refinement of efforts to improve the curriculum of medical and nursing schools and to provide specialized training courses for newly recruited personnel as well as continued education for veteran personnel. A rational referral program must also be instituted in order to ensure that the health system treats individual cases at the appropriate level, resulting in both greater efficiency and effectiveness. The completion of this stage should be a prerequisite for the future reform of the tertiary care sector and the country's hospitals.

6.32   SOCIAL SAFETY NETS.   In developed countries, the notion of social security emerged in connection with social changes that caused a sharp decline in the living standards of many individuals. In the context of these societies, poverty was viewed as a transitional state. For Guinea policy failures have had adverse impacts on the standard of living of the poor. To deal with this situation the government has explicitly introduced poverty alleviation as one of its fundamental objectives of socio-economic policy. To

6.37   The limited governance capacity also makes it necessary to pursue, while consolidating it, the civil service reform. *This should be pursued within a broader framework of long-term institutional development subject to the overall objective of efficient social welfare enhancement.* It is recommended that, in line with the reflection on the role of the government, a management philosophy based on professionalism, effectiveness, efficiency and integrity be crafted and infused throughout the public sector. In this respect, it might be useful to introduce or reinforce civic education throughout the school system.

6.38   Limited governance capacity also implies the need for *decentralization* and effective participation by those whom the government is supposed to serve. The World Bank Participation Sourcebook defines this concept as *"a process through which stakeholders influence and share control over development initiatives and the decisions and the resources which affect them."* Participation thus seems a natural vehicle the government could use to learn about the divergence of different interests in society, assess the extent of their divergence, and craft coalitions to push for a reform agenda. It should also serve to change the incentive environment by creating demand for better policies and implementation, and by increasing the risk of exposure of corruption.

6.39   In the particular case of poverty alleviation in Guinea, the implementation experience of policy reforms both at the macroeconomic and sectoral levels suggests that the existing stock of governance capacity may not be up to the task at hand. Could this mean that the perceived risk of capture of the state by some powerful social groups is so great that the government has been unwilling or unable to go all the way in *making poverty reduction* the vision upon which to base its necessary autonomy vis-à-vis such groups'. If this were to be the case, then the donor community would face the challenge of designing, in collaboration with the Guinean authorities, a truly implementable and sustainable strategy for poverty reduction that is commensurate with the existing human and social capacity in the country. *This leads us to the conclusion that, focusing on governance is critical to poverty reduction in Guinea.*

6.40   INFORMATION POLICY. The poverty alleviation strategy discussed here can be fundamentally interpreted as *a social contract between the individual and society.* Such a contract may be viewed as a transaction between two parties in a social relation whereby one agrees to take an action of some value to the other (e.g. assuming personal responsibility) in exchange for some reciprocal action (e.g. provision of an enabling environment).

6.41   The availability of sound and reliable information on the life of society is crucial for the implementation of this social contract. This is so because people tend to act on the basis of beliefs (personal, community) and objective information, and will adapt to changing circumstances. Unfortunately, information is costly and as a result, people will tend to minimize information costs and decisions are often made on the basis of incomplete information. These decisions would probably be different if the decision-makers had adequate information (Stiglitz 1989).

6.36 *Both individual and governance capacity are weak in Guinea.* This imposes a severe constraint on the feasibility and sustainability of desirable policy reforms and the nature of the dialogue between the government and its partners in development. In this context, it is recommended that the ongoing reforms in health and education be vigorously pursued. To enhance government capacity to provide basic health and education services to the majority of the population, the reform should find ways for the private sector to emerge and to cater to those who have the ability to pay. In the particular case of education, attention should be given to both formal and informal education and training in both rural and urban areas. Special emphasis should be placed on women because of higher expected social returns.

6.46   Limited local capacity makes both the sustainability of poverty monitoring and the effective use of data and analyses uncertain. Yet poverty monitoring remains vital, both to inform public policy and as a means of monitoring performance. Therefore, with respect to sustainability, donor support will continue to be necessary for some time. With respect to policy impact, there is a need to learn from past mistakes and build new processes. Experience in other countries suggests that adopting more participatory approaches may enhance the sense of "ownership" and encourage the inclusion of social issues on the agendas of decision-makers.

6.47   *There are several ways in which this may be done. Quantitative data collection may be complemented with qualitative surveys to provide socio-cultural data and to give voice to the poor and vulnerable.* A broad range of stakeholders should be involved in both the design of poverty monitoring tools and in the discussion and analysis of collected data. This should help bring social concerns to the attention of policy-makers and contribute to creating greater demand for better policies. But it is not just data and analyses that need to be broadly debated. The same is true for the public policies which the former seek to inform. *Thus it remains critical that the donor community emphasize, in the context of dialogue with government, civil society, and other actors, the importance of placing poverty at the center of government's priorities.*

6.42   Thus, the implementation of the poverty alleviation strategy would require a coherent information policy to guide the collection and dissemination of relevant information used in making and implementing decisions that are consistent with the overall strategy.   An intense campaign may be needed in order to put the proposed reform on the national agenda, and ensure that there is a critical mass within and without the bureaucracy that supports it. Such a campaign should spell out the benefits the key stakeholders would derive in supporting the strategy.

MONITORING SYSTEM

6.43   The relevance of a poverty alleviation strategy is fundamentally determined by that of the underlying analytical framework and database.   Furthermore, the implementation of such a strategy should affect the living standard of the population. These effects need to be *monitored* in order to assess the differential impact of the strategy and the desirability of these effects. Such information is crucial for a *dynamic* implementation of the strategy.

6.44   As in many other sectors, the legacy of the First Republic in terms of a national statistical system may be considered disastrous. Whatever statistics may have been available were provided exclusively by government departments and tended to be at variance with observed reality.   The reliability of most socioeconomic data was undermined by the repression of private initiative. This led to the development of an underground and parallel economy whose activity could not be captured by the official statistics. Evidence of this statistical problem is clearly presented by the fact that all pages in the World Bank World Tables pertaining to the economic situation in Guinea prior to 1986 are basically blank.

6.45   To remedy the situation, the government carried out three projects with the help of the donor community: (i) two technical assistance projects for economic management (PAGEN I & II)[55] and (ii) a Socioeconomic Development Support Project (PADSE).[56] The PAGENs aimed at, among other goals, the improvement of economic statistics, macroeconomic planning and investment programming. PADSE sought in particular to strengthen government capacity in the areas of social policy design, coordination and implementation, the identification of specific poverty groups, and constant monitoring of the living conditions of households. All these projects succeeded in setting up adequate systems of socioeconomic data collection.   They were less successful in securing ownership of the analysis performed on the collected data and a significant policy impact of such analysis.

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[55]   *Projet d'Aide à l'Economie Nationale*

[56]   *Projet d'Appui au Développement Socio-Economique*

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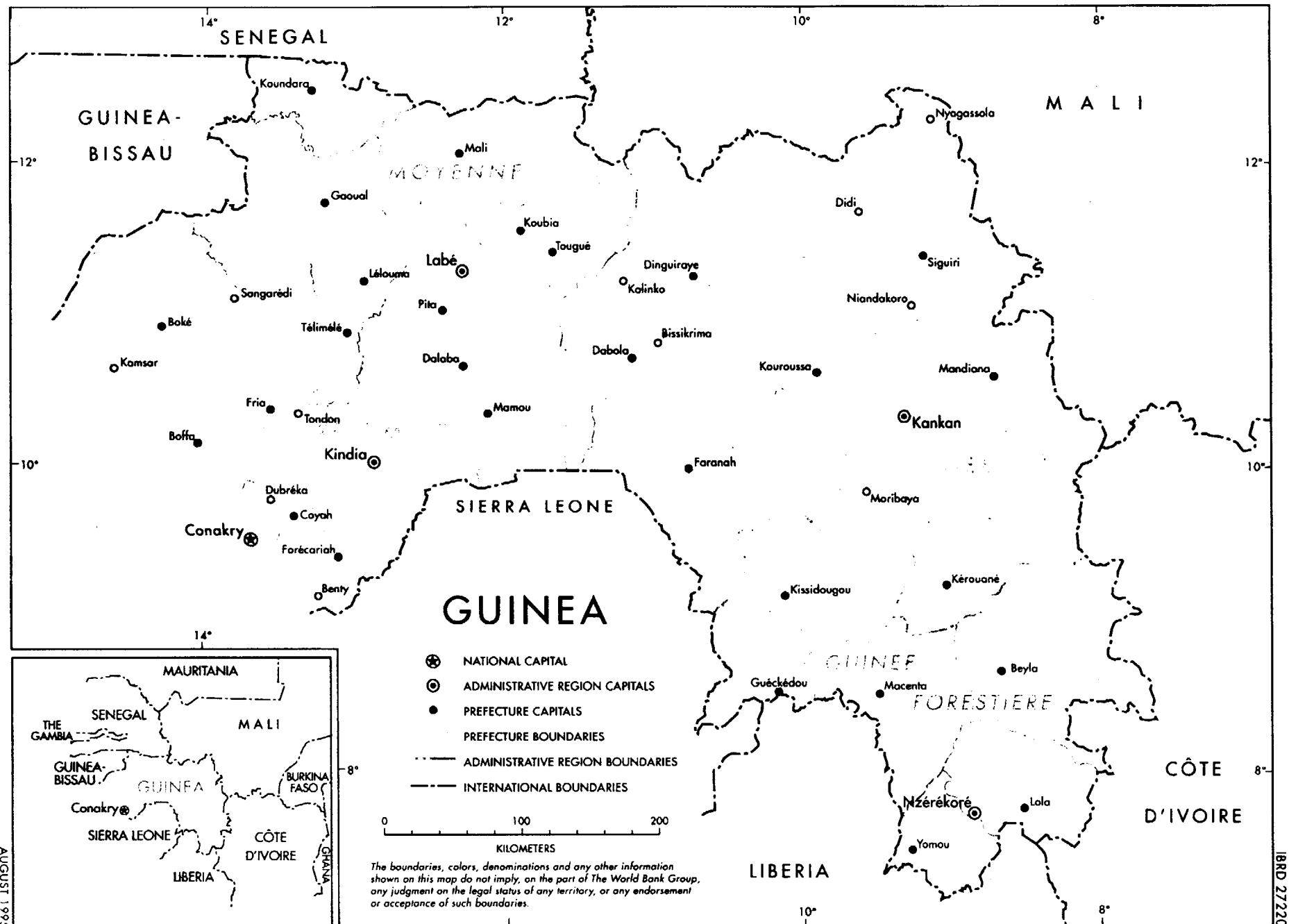———. "Maternal Labor Supply and Child Nutrition in West Africa." Unpublished manuscript, September 1995.

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106

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GUINEA

SENEGAL

GUINEA-BISSAU

MALI

- Koundara
- Nyagassola
- Mali
- MOYENNE
- Gaoual
- Didi
- Koubia
- Tougué
- Labé
- Dinguiraye
- Siguiri
- Léloumа
- Kalinko
- Sangarédi
- Pita
- Niandakoro
- Boké
- Télimélé
- Bissikrima
- Kamsar
- Dalaba
- Dabola
- Kouroussa
- Mandiana
- Fria
- Tondon
- Mamou
- Kankan
- Boffa
- Kindia
- Faranah
- Dubréka
- SIERRA LEONE
- Moribaya
- Coyah
- Conakry
- Forécariah
- Benty
- Kissidougou
- Kérouané
- GUINEE
- Beyla
- Guéckédou
- Macenta
- FORESTIERE
- Nzérékoré
- Lola
- Yomou

CÔTE D'IVOIRE

LIBERIA

Symbol	Description
⊛	NATIONAL CAPITAL
◉	ADMINISTRATIVE REGION CAPITALS
●	PREFECTURE CAPITALS
	PREFECTURE BOUNDARIES
—·—	ADMINISTRATIVE REGION BOUNDARIES
—··—	INTERNATIONAL BOUNDARIES

KILOMETERS
0   100   200

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any judgment on the legal status of any territory, or any endorsement
or acceptance of such boundaries.

MAURITANIA

THE GAMBIA

SENEGAL

MALI

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Conakry

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