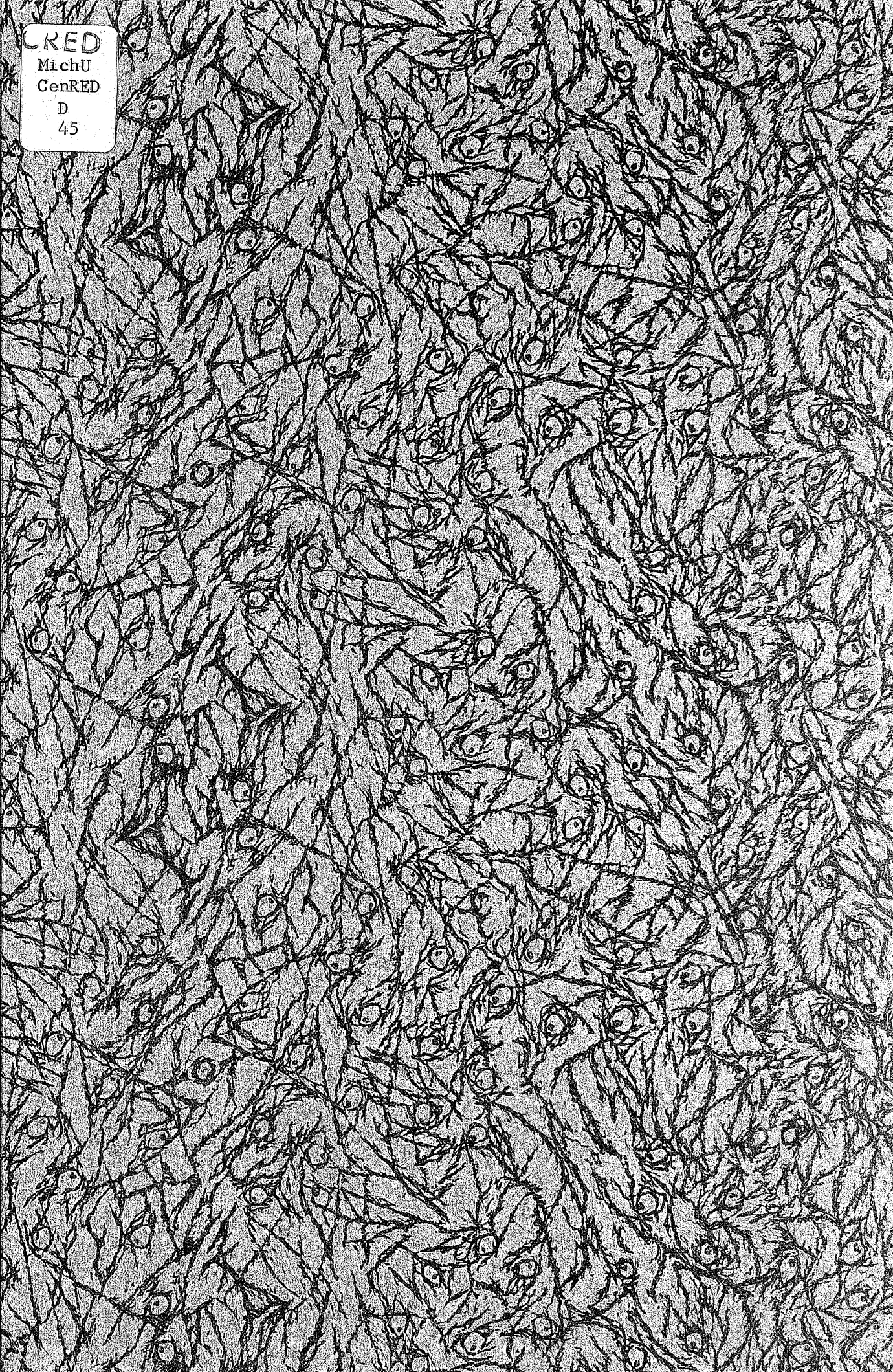


CKED  
Mi chU  
CenRED  
D  
45







Changes in Income Distribution  
1961-1971

by  
Jacob G. Kleve  
and  
Wolfgang F. Stolper

Library  
Center for Research on  
Economic Development  
506 East Liberty Street  
Ann Arbor, Michigan 48108

The authors are respectively members of  
the United Nations (UNDP-Tunisia)  
and  
The University of Michigan (Professor of Economics)

*Discussion Paper 45*





## CHANGES IN INCOME DISTRIBUTION

by

Jacob G. Kleve and Wolfgang Stolper

### ABSTRACT

This paper evaluates the factors underlying the change in Tunisia's income distribution between 1961 and 1971. It concludes that the number of households below the real poverty line has decreased significantly. There has not been any transfer of income from the poorest to the less poor and there does not appear to be an increasing gap between the two groups. It also examines the structure of increases in income among those groups above the poverty lines and notes that improvements in income of wage earners have occurred concurrently with low profits and depreciation. The low profitability of enterprises reflects their inadequate productivity and contribution to the country's rate of economic growth. In fact, Tunisia's substantial growth and the improvement in the standard of living of the less poor was made possible only by capital inflows.





Table of Contents

	<u>page</u>
I. Introduction . . . . .	1
II. The Situation in 1961 . . . . .	1
III. The Situation in 1971 . . . . .	7
A. Consumption Survey . . . . .	7
B. Fiscal Surveys and the National Accounts . . . . .	9
C. The Employment Situation . . . . .	12
IV. Has There Been a Transfer from the Poor to the Less Poor? .	14
A. Probable Effects of Economic Policies . . . . .	15
B. Probable Effects of the Tax-Expenditure Pattern . . . . .	17
C. Conclusion . . . . .	18
V. Income Distribution and Output Per Man . . . . .	19
A. Income Distribution Within the Two Income Groups . . . . .	19
B. Wage Payments and Value Added . . . . .	21
C. Income Distribution and Capital Inflows . . . . .	26
D. Conclusion . . . . .	29





## List of Tables

	<u>Page</u>
1. Distribution of the Population According to Income Classes in 1959 . . . . .	3
2. Average Income by Income Classes, 1959 . . . . .	3
3. Planned Breakdown of Uses of Household Income in 1971, 1959 Prices . . . . .	5
4. Current Budgetary Expenditures on Social Classifications . . . . .	5
5. Households and Population of Families Having Less than 50 D Income Per Head in 1965-68, According to Occupa- tion of Head of Household . . . . .	8
6. Hypothetical Changes in Income Distribution . . . . .	10
7. Average Household Income, 1962 and 1971, by Major Sector . . . . .	11
8. Average Income per Worker, 1962 and 1968, by Major Sector . . . . .	11
9. Average Wage and Salary Payment Per Full-Time and Full Time Equivalent Part-Time Employee, by Major Sector, 1961 and 1971 . . . . .	12
10. Balance Sheet of Labor Supply 1962-1971 . . . . .	13
11. Index of Value of Output of Industrial and Agricultural Production in Tunisian Prices . . . . .	15
12. Progressivity of the Tunisian Tax System, 1970 . . . . .	18
13. Gini Coefficients by Major Economic Sector, 1962, 1963, 1968 and 1971 . . . . .	20
14. Gini Coefficients and Average Household Incomes, 1971, by Major Manufacturing Industries . . . . .	20
15. Wages and Salaries as Per Cent of Gross Value Added, Various Countries . . . . .	22
16. Profits, Depreciation, and Gross Savings, Public Enter- prises, Mining and Manufacturing . . . . .	23
17. Profits, Depreciation, and Gross Savings, Public Enter- prises, 1970, by Industry . . . . .	24
18. Wages and Salaries in Value Added; 1960, 1970, by Sector . . . . .	25
19. Per Capita Capital Inflow, Tunisia . . . . .	27





## Changes in Income Distribution 1961-1971

### I. Introduction

1. The aim of economic development is to improve the standard of living of the population. Growth of GDP, increasing money income, increasing production and productivity, the provision of essential government services, the absorption of unemployed resources into productive life are only means to that end. Everyone wants to raise the level of living of the most disadvantaged in particular. Hence, income distribution becomes a major aim of economic policy.

2. Unfortunately, facts which allow one to assess what was the income distribution at the beginning of the 1960's or how it has changed are scarce and uncertain. In order to gain an impression of what happened during the decade one has to assemble as many often disjointed facts as possible and to try to make them bear on the problem at hand. We believe that enough such evidence exists to allow fairly certain conclusions, but we know of no evidence which would allow a definite proof. Because of the nature of the data, the approach must necessarily be roundabout, and at times perhaps even somewhat tortuous. We believe that the results are sufficiently certain to justify it.<sup>1</sup>

### II. The Situation in 1961

3. The Tunisian Perspective Plan stated the income distribution aims in rousing words in the Introduction:

Rendre à tous les Tunésiens leur dignité d'hommes, c'est-à-dire les libérer de toutes les forces qui les opprimes, leur donner les moyens décents d'une existence digne pour qu'ils accèdent

---

<sup>1</sup>Since the first draft of this chapter was written, the article by Mekki Chekir, "Aspects de la répartition des revenus en Tunisie," Ministère de l'Economie Nationale, Conjuncture, No. 2, avril 1974, has appeared, which starts by stressing that the data are "absolument insuffisantes pour élaborer un diagnostic consistant sur la répartition des revenus" (p. 63).

enfin et participent à la condition humaine.... Pour atteindre ces objectifs, la planification ne vise nullement à ruiner les uns au profit des autres, mais doit opérer une distribution équitable des richesses, en faisant cesser les scandales aux deux extrêmes de la pyramide sociale.<sup>2</sup>

4. The Perspective Plan tried to quantify the problem to be solved. The usual difficulties of establishing the facts necessary to get a benchmark for any policy are compounded in the area of income distribution. The frequent revision of production data, particularly in the agricultural sector in which most people make their living, indicates something of the uncertainties, but at least there were acceptable production data. No general inquiry on family incomes and expenditures existed.<sup>3</sup> An enquiry into family budgets in the city of Tunis was under way when planning started, but certain results were available to the planners and were extrapolated to Tunisia as a whole.<sup>4</sup> Separate estimates were made for the urban and rural populations, and it was assumed that all 130,000 Europeans and 160,000 non-Europeans who were owners of factories or trade establishments, or who belonged to the liberal professions or the higher civil service, had an average per capita income of 100 D or more.<sup>5</sup> On the basis of this slim material and a number of heroic assumptions, it was found that 73 per cent of the population had a per capita income of 50 D or less, while 14 per cent had an average income of 90 D or more.<sup>6</sup> The figures, which refer to 1959, imply that not much changed between 1959 and 1961 regarding income distribution and prices in which income is measured; nor for that matter, did they vary between 1957 and 1962.<sup>7</sup>

---

<sup>2</sup> République Tunisienne, Secrétariat d'Etat au Plan et aux Finances, Perspectives Decennales de Développement, 1962-1971, Imprimerie Officielle, Tunis, n.d., p. 8.

<sup>3</sup> Ibid., p. 73.

<sup>4</sup> Ibid. We have been unable to locate the original enquiry. We therefore rely entirely on the Perspective Plan.

<sup>5</sup> Ibid., p. 73.

<sup>6</sup> Ibid., p. 74, unnumbered table.

<sup>7</sup> Population and income figures refer to 1959, prices to 1957; planning was finished in 1961, the First Plan started in 1962.



5. The benchmarks established by the Perspective Plan are given in tables 1 and 2. In addition the Perspectives estimate rural per capita income to have been 38.5 D, with 50 per cent of the rural population remaining below 16 D; and urban per capita income was 103 D, with 50 per cent of the urban population below 43 D.<sup>8</sup>

Table 1  
Distribution of the Population According to  
Income Classes in 1959

Income Class (in Dinar)	Rural Population	Urban Population	Total Population	Entire Population %	Cumulative Percentage %
0 - 20	1 166 014	348 835	1 514 849	37	37
20 - 30	604 705	222 269	829 874	20	57
30 - 40	304 886	93 109	397 995	9	66
40 - 50	176 506	117 050	293 556	7	73
50 - 60	100 860	118 485	219 345	5	78
60 - 70	68 619	54 638	123 257	3	81
70 - 80	41 171	72 755	113 926	3	84
80 - 90	27 448	45 898	73 346	2	86
90 -	109 791	456 961	566 752	14	100
Total	2 600 000	1 530 000	4 130 000	100	

Source: République Tunisienne, Secretariat d'Etat au Plan et aux Finances, Perspectives Décennales de Développement, 1962-1971, p. 74.

Table 2  
Average Income by Income Classes, 1959 (1957 prices)

Income Class (in Dinar)	Population (000)	Per Capita Income (D)	Total Income (mil. D)
0 - 20	1 515	1	21
20 - 40	1 225	28.5	35
40 - 60	513	48.7	25
60 - 80	237	71.7	17
80 - 90	73	85	6
90 -	567	218	124
Total	4 130		228

Source: As table 1.

<sup>8</sup>Ibid., pp. 74, 75.

6. A "decent" life required, according to Perspectives, a minimum per capita income of 50 D (in 1957 prices). It was felt that this aim could be reached only by 1974, but that by 1971 a per capita income of 45 D (in 1957 prices) could be reached. Moreover, the Perspectives felt that this minimum income could be reached with all income classes except the highest also rising. Only the per capita income of the group averaging 80 D or more would have to decline from an estimated average of 218 D to 169 D, a rather drastic decline.<sup>9</sup>

7. The achievement of this aim required that the expected growth of the economy would be forthcoming in roughly the expected manner. It also implied certain fiscal, wage, price and related policies. The income distribution was influenced by the way in which the population is taxed and how the government spends the money and on whom. It is, therefore, important to establish whether the benchmark of 45 D (in 1957 prices) refers to money income (including imputed subsistence income), or to income received in the form of public goods.

8. The Perspectives was not explicit on this point. However, it must be presumed that the per capita income of 45 D referred primarily to private consumption, including subsistence production, at market prices. This seems to follow from a consistency check of the Plan. Total private consumption in 1971 was expected to be 358.5 mil. D (MD) out of a GDP of 486.0 MD or 73.8 per cent (in 1957 prices). (In point of fact, private consumption in 1961 was 76.3 per cent, and in 1971, 66.8 per cent of GDP in constant prices. From this standpoint, the income redistribution aim seems achievable.) These 358.5 MD in turn are broken down as shown on the resource-use side of the Household Accounts for 1971 (table 3).

9. 45 D in 1957 prices may be estimated to be 70 D in 1971 prices.<sup>10</sup> The following discussion is in terms of the changes that have occurred in the distribution of the population that is below or above that poverty line.

10. The per capita consumption of public goods (health, education, and related goods and services) in 1961 may be estimated at 6.9 D at 1961

---

<sup>9</sup> Ibid., pp. 75, 76.

<sup>10</sup> République Tunisienne, Ministère du Plan, Rétrospectives Décennales 1962-1971, Janvier 1972, mimeo, p. 124.

Table 3  
Planned Breakdown of Uses of Household Income  
(1971, 1957 prices)

	<u>MD</u>
Consumption of goods and services	329.5
Taxes	15.0
Transfers	0.5
Tourism	4.0
Savings	<u>9.5</u>
Total	358.5

Source: Perspectives, op. cit., p. 61.

prices (which it is assumed have not been too different from 1957 prices) or at 10.7 D in 1971 prices. This seems implied in current budgetary expenditures on social classifications. Capital expenditures would raise these figures somewhat (table 4).

Table 4  
Current Budgetary Expenditures on Social Classifications  
(in current prices)

	<u>1961</u>		<u>1971</u>	
	<u>MD</u>	<u>%</u>	<u>MD</u>	<u>%</u>
<u>Social Expenditures</u>	<u>29.8</u>	<u>39.7</u>	<u>80.2</u>	<u>46.9</u>
Education	14.3	19.1	50.0	26.0
Health	6.1	8.1	14.3	7.4
Youth, sports, social affairs	1.0	1.3	7.4	3.9
<u>Administrative Expenditures</u>	<u>36.3</u>	<u>48.4</u>	<u>91.2</u>	<u>47.4</u>
<u>Economic Expenditures</u>	<u>8.9</u>	<u>11.9</u>	<u>10.9</u>	<u>5.7</u>
Total	75.0	100.0	192.3	100.0

Source: République Tunisienne, Ministère au Plan Rétrospectives Décennales 1962-1971, Janvier 1972, mimeo, p. 123.

11. There is some evidence that at least the health and to a lesser extent the education expenditures were fairly evenly distributed

over the country and benefitted the less advantaged income groups. Between 1958-59 and 1961, the number of hospital beds increased from 8868 to 12,050.<sup>11</sup> Moreover, by 1961 each Governorat had at least one major and one or more auxiliary hospitals, and there were more than 400 dispensaries.<sup>12</sup> There were only about 450,000 children in school in 1961 compared to 1.2 million in 1971.<sup>13</sup> The elementary schools were, moreover, fairly well regionally dispensed; high schools were less so.

12. Social security expenditures were in 1961 probably much less evenly distributed among the population, and likely benefitted mainly the population above the poverty line. We may estimate that the social expenditures other than social security added 5 to  $5\frac{1}{2}$  D to the per capita income of the poorest. We may thus estimate the poverty line in 1961 as 45 D (excluding public goods) and 50 D (including public goods), in 1957-61 prices, or 70 D and  $78\frac{1}{2}$  D respectively in 1971 prices.

13. These figures are, of course, only approximate. Taking 40 D as the poverty line in 1959-61 in 1957 prices (mainly to allow a comparison with certain population data), we can estimate from table 1 above that 66 per cent of the population as a whole, but 84 per cent of the rural and 43 per cent of the urban population were below the 40 D line. Since we are told that 50 per cent of the urban population had an income of 43 D or less--roughly the poverty line established--and since we may interpolate that about 87 per cent of the rural population had 43 D or less per capita income, we can "guestimate" that about 73 per cent of the total population in 1961 was below the poverty line of 43-45 D in 1957 prices or 70 D in 1971 prices, without consumption of public goods, and 50 D or  $78\frac{1}{2}$  D respectively including the consumption of public goods. This is our benchmark, admittedly crude and rough, but the best that the available information allows.

---

<sup>11</sup>Perspectives, op. cit., p. 113.

<sup>12</sup>Ibid.

<sup>13</sup>Retrospectives, op. cit., p. 124.



### III. The Situation in 1971

14. The information on which we base a discussion of the changes in income distribution is somewhat more abundant, but far from satisfactory. We hope that the accumulation of evidence from different sources will compensate in part for the deficiencies of each individual source.

#### A. Consumption Survey

15. The first source is the Consumption Survey for the years 1965-1968.<sup>14</sup> The survey does not indicate the prices in which total expenditures are measured. We are forced to assume that they are expressed as an average of the prices for the four years, say, 1966 prices. The fact that certain income classes are open-ended is not a major concern in this context, since we are basically interested in a dichotomy of incomes above and below the poverty line. The approach to the interpretation of the figures is essentially socio-economic.

16. Table 5, derived from the Consumption Survey 1965-68, allows us to conclude that about 43 per cent of households had a per capita consumption of 50 D or less. Since the enquiry was made in a variety of prices, we must deflate the 50 D by the increase of the consumer price index between 1961 and 1966 of 17.2 per cent. The 50 D in 1965-68 (1966) prices is equivalent to 42.7 D, the poverty line, in 1961 prices. Consumer expenditures include household spending for expenditures on health and education. The consumption of public goods paid for by taxes is not included. Since we have concluded that 84 per cent of the rural and 43 per cent of the urban population were below the poverty line of 40 D (see para. 13) and have "guestimated" that 73 per cent of the total population was below 43 D in 1961 prices, we can now state that the percentage of households below the poverty line fell from 73 per cent to 43 per cent. Similarly, the percentage in the same category of the population decreased 73 per cent to about 42 per cent (not including an allowance made for the consumption of public goods).

17. These figures may be extrapolated into 1971 on the basis of

---

<sup>14</sup>Institut National de Statistique, La Consommation et les Dépenses des Ménages en Tunisie, 1965-1968, Tunis, 1970.

Table 5  
Households and Population of Families Having Less  
than 50 D Income Per Head in 1965-68, According  
to Occupation of Head of Household

<u>Occupation</u>	<u>Number of Households</u>	<u>Number of persons</u>
Agriculture	175 000	935 000
Industry	20 000	106 000
Construction, Public Works	20 000	102 000
Trade	16 000	86 000
Services	35 000	181 000
Not specified, inactive	<u>131 000</u>	<u>566 000</u>
Total of above (low income)	397 000	1 976 000
Total number	928 000	4 716 000
Low income as percent of total	42.8%	41.9%

Source: Consumption Survey

employment data, the distribution of the population by economic sector, and the average number of people of working age. The best "guestimate" is that there were (a) 223,000 households whose heads were small farmers, agricultural laborers, and others underemployed in agriculture; (b) 92,000 households of seasonal workers in industry, construction, and casual workers in trade and the services, and (c) 85,000 households of unemployed or persons without occupations. This, then, is a total of about 400,000 households. With an average number of 5.3 persons per household, the total population is 2.120 million out of a total of 5.290 (40 per cent).

18. From table 4 above, it appears that the consumption of public goods in 1971, as measured by per capita current budgetary expenditures on education, health, other social services, and social security, was 17.1 D at 1971 prices. Omitting social security payments gives a per capita expenditure of 13.6 D, compared to  $5\frac{1}{2}$  in 1961 prices or  $8\frac{1}{2}$  in 1971 prices expended in 1961. These expenditures understate the figures by omitting the capital expenditures in the social sectors, which in 1971 were 11.8 MD, and in 1961 were about 2.2 MD all outside of social security. This raises per capita consumption of social goods to 19.3 D including, and 15.8 D excluding, social security.

19. Not only have the public expenditures or social services approximately doubled, but they have also almost certainly benefitted the most disadvantaged and consequently have had a redistributive effect in the right direction. The school population is now over 1.2 million. Everyone has access to an elementary school and to at least some health service. The total of health service expenditures

profite à la catégories la plus déshéritée de la population. Il ne serait pas exagéré de dire que les dépenses de santé réalisées par les administrations bénéficient seulement à la moitié de la population Tunisienne qui a les revenus les plus bas.<sup>15</sup>

In 1971, 650,000 "cartes de soins" were issued, allowing some 2.6 million family members to receive free medical care. (Ibid) Rétrospectives states that expenditures were so much concentrated on the lower income classes, that 20 D could be taken as the per capita consumption of public goods of the people below the poverty line. (Ibid)

#### B. Fiscal Surveys and the National Accounts

20. Additional information comes from three fiscal surveys,<sup>16</sup> analyzing the tax returns for 1962, 1968 and 1971. The 1962 survey covered 413,000 returns, the 1968 survey 469,000. The difficulties with such returns are well known. In the Tunisian surveys, 51 per cent and 79 per cent respectively give no information as to the economic section and branch in which the declarer worked. Only 5 per cent of the declarations pertain to employers in 1962, and 49 per cent in 1968, compared to a third of the population in 1966.<sup>17</sup> Thus, the coverage in the higher brackets appears poor. The same is probably true in the lowest income groups which do not report at all or only occasionally. Thus the returns cover, with relatively few exceptions, essentially the salaried part of the population.

---

<sup>15</sup>Rétrospectives, op. cit., p. 124.

<sup>16</sup>The Fiscal Surveys have been reported as follows: Fiscal Survey 1962: in H. Durand, Rapport sur une Mission de Coopération Technique, Genève, 1971; Fiscal Survey 1968: Ministère du Plan, La Répartition des Revenus, 1972, mimeo; and Fiscal Survey 1971: Ministère du Plan, Note sur l'Evolution de Revenus, 1973, mimeo.

<sup>17</sup>An account of these surveys is found in M. Chekir, op. cit., p. 64.

21. The fiscal statistics appear to show that the average income has fallen from 190 D in 1962 to 130 D in 1968, both in current prices. However, the 1962 analysis refers, apparently, to total income, while that of 1968 refers only to taxable income.<sup>18</sup> Moreover, the fall in salaries appears to be concentrated in the group of seasonal and occasional workers. An attempt has been made to take the average income of the socio-economic group below the poverty line. The result indicates a nominal increase from 73 D to 80 D in current prices or a decline to only 58 D in comparable prices. For the poorest group the statistics appear to indicate a decline in family income. There is, however, reason to disbelieve this result. We have already indicated that the average is poor and in 1968 covered probably taxable rather than total income. Households receiving 80 D in 1971 on the average were 25 per cent of the total.

22. Before concluding that average incomes have fallen--a wrong conclusion in our opinion--it should be pointed out that it is arithmetically possible for the average of a group to fall without any individual being worse off than before, provided the total number of the group also falls. This would be the case, for example, if the 30 per cent below the poverty line in 1961, who filtered above the line in 1971, came mainly from the upper part of the lower group. Table 6 constructs a purely hypothetical example to make the point. It is, therefore, not legitimate to conclude from these data that the poor have actually become poorer. We will return to this point later.

Table 6  
Hypothetical Changes Income Distribution

Average Incomes	No. of Families Period 1	Average Income	No. of Families Period 2	Average Income
10	22		17	
20	22		15	
30	10	24	5	18.75
40	8		2	
50	8		1	
60	10		25	
70	10	70	23	73.9
80	10		22	

<sup>18</sup>This, at least, seems a reasonable explanation.

23. For the income groups above the poverty line, the average income of the declarers of tax returns seems to have increased. We summarize on table 7 average household incomes in 1962 and 1971, and in table 8 average income per worker in 1962 and 1968, as derived from the tax returns. The latter is lower, because some families have more than one wage earner.

Table 7  
Average Household Income, 1962 and 1971, by Major Sector  
(in Dinar)

	1962 in 1962 prices	in 1971 1971 prices	in 1962 prices*	Real increase %
Industry	578	1023	741	28
Construction PWD	480	1200	870	81
Transport	452	745	540	19
Government	551	904	655	19

Source: Fiscal Surveys

Note: \*Deflated by increase in cost of living of 38 per cent.

Table 8  
Average Income per Worker, 1962 and 1968, by Major Sector  
(in Dinar)

	1962 in 1962 prices	1968 1968 prices	1962 prices*	Real increase %
Industry	428	673	504	18
Construction	285	398	299	5
Trade	247	584	438	77
Transport	356	513	385	8
Government	313	560	420	34

Source: Fiscal Surveys

Note: \*Deflated by increase in cost of living of 25 per cent.  
M. Chekir, *op. cit.*, p. 67, gives the 1962 and 1968 figures in current prices only.

24. We supplement the figures with data for average wages and salaries by sector and branch derived from national accounts data for 1961 and 1971 (table 9).

25. There is little doubt that the real income of the people employed in the modern Sector of the economy has increased. There is

Table 9

Average Wage and Salary Payment Per Full Time  
and Full Time Equivalent Part Time Employee,  
by Major Sector, 1961 and 1971  
(in Dinar)

Sector	1961	1971		Real increase %
		1971 prices	1961 prices*	
Industry	321	508	368	15
Construction, PWD	170	422	306	80
Transport	466	856	620	33
Government	470	794	575	22
Trade	211	635	460	118

Source: National Accounts

Note: \*Deflated by increase in cost of living of 38 per cent.  
M. Cheki, *op. cit.*, p. 67, gives corresponding data for 1960  
and 1970 in current prices only.

also little doubt that the income of the 70-75 per cent of the population that is above the poverty line has increased. Although the data appear to indicate that the average income of people below the poverty line has decreased, there is considerable doubt about the validity of that finding since the weaknesses in the statistical basis are particularly great at the lower end of the income scale. In any case, we have pointed out that a lower average is consistent with no actual deterioration in the income of the individuals composing the group. And we shall argue below that no actual transfer of income from the lower to the higher income group can have taken place.

### C. The Employment Situation

26. No precise data exist which would allow a detailed assessment on total employment changes in Tunisia. Elsewhere data have been presented which give the best estimates of employment by sector and industries, data the quality of which ranges from excellent to reasoned guesswork.<sup>19</sup> From population data and the employment data it is, however,

<sup>19</sup> See W. F. Stolper, Investment, Employment, and Output per Man in the Tunisian Economy, 1961 to 1971, mimeo, table A.2, A.2a, and sec. II (i), discussing the methodology of the employment data.



possible to conclude within reasonable margins of error that the employment situation for male Tunisians has improved substantially during the period of the Ten Year Plan, while that of female Tunisians has remained essentially unchanged.

27. This result is in part due to the favorable development of migratory workers, primarily to France, another example of the openness of the Tunisian economy and its integration with the rapidly growing economies of the common market. Effective population, i.e. after an allowance for migration of workers, is estimated to have risen from 4.229 million at the end of 1960 to 5.290 million at the end of 1971. The cumulative net out-migration is estimated at 212,000.<sup>20</sup> The labor supply balance is estimated as follows:

Table 10

Balance Sheet of Labor Supply, 1962-1971 (in millions)

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Natural increase in population			
aged 15 - 64 years	345	333	678
Less emigration, aged 15-64 years	<u>-161</u>	<u>- 51</u>	<u>-212</u>
Increase in potential labor supply	184	282	466
Less increase in students	- 99	- 38	-137
Less increase in inactives	- 4	-	- 4
Less increase in number of housewives	<u>-</u>	<u>-222</u>	<u>-222</u>
Net increase in labor supply	<u>+ 81</u>	<u>+ 22</u>	<u>+103</u>
Estimated number of new jobs:			
Government	38 000	4 000	42 000
Tourism	16 000	2 500	18 500
Industries	37 000	8 000	45 000
Construction	10 000	--	10 000
Other	<u>9 000</u>	<u>8 000</u>	<u>17 000</u>
Total	110 000	22 500	132 500
Reduction in unemployment	29 000	500	29 500

Source: Rétrospectives, pp. 110, 111, 112.

<sup>20</sup>Data summarized from Rétrospectives, op. cit., pp. 103-104.

28. Like all other figures, these must be interpreted as orders of magnitude rather than as precise figures. While there is some uncertainty about the size of the population and its age distribution, there is even less certainty about most employment figures. They do not agree in detail with those presented elsewhere.<sup>21</sup> The migration figures presented by Rétrospectives in two different places conflict.<sup>22</sup> It is possible that the employment figures refer to the number of full-time and part-time employees, while the figures presented elsewhere have converted part-time and seasonal workers into their full-time equivalent. Whatever their limitation, the order of magnitude suggests that the employment situation has improved overall, particularly for men. It is likely that much of the emigration comes from the poorer sections of the country where local employment opportunities are scarce. Indirect effect of the changes has not been allowed for in the estimation of the number of new jobs created.<sup>23</sup>

29. The figures, despite their uncertainties, suggest that in 1971, more families with male heads had a higher real income than the years previously. It should be added that a substantial part<sup>24</sup> of the increased government employment are school teachers and thus does not represent simply a blocked administrative apparatus.

#### IV. Has There Been a Transfer of Income from the Poor to the Less Poor?

30. We summarize our findings so far, emphasizing that the data permit conclusions only as to orders of magnitude, and those conclusions only with a high degree of plausibility. The crucial development is that the percentage of the population below the poverty line has substantially

---

<sup>21</sup>See footnote 19.

<sup>22</sup>E.g. Rétrospectives, op. cit., p. 107, gives a total emigration of Tunisians, 1962-1971, of 158,000.

<sup>23</sup>The growth of employment in tourism does not, for example, include employment in travel agencies.

<sup>24</sup>About 20,000, Rétrospectives, p. 112.

declined, from about 70-75 per cent in 1961 to about 40-45 per cent in 1971. The figures suggest further that the average income of people above the poverty line has increased in real terms while that of the people below the poverty line has decreased. We have already pointed out that this does not necessarily mean that the poor have actually become poorer. Neither does this mean that there was a transfer of income from the poor to the less poor; a person with an average income of 70 D-plus can hardly be called rich.

31. In order to establish that there was a redistribution between groups it is not sufficient to present figures on the change in the average income. It is necessary to establish some mechanism or manner by which the redistribution might have taken place. We can envisage such redistribution to be the effect of price, wage and related policies. This would explain essentially a differential development of incomes of different groups. Or redistribution may come about through the tax expenditure pattern of the government budget. We shall investigate these two possibilities.

#### A. Probable Effects of Economic Policies

32. Policies that may affect differently the incomes of various groups relate primarily to agricultural and industrial prices. Blake has established that although agricultural prices are above world market prices (at the exchange rate), the protective policies have raised industrial prices even more. The internal terms of trade between industry and agriculture remained essentially unchanged between 1962 and 1969.

Table 11

Index of Value of Output of Industrial and Agricultural  
Production in Tunisian Prices

	<u>1962</u>	<u>1966</u>	<u>1969</u>
Industrial output, Tunisian prices	89	100	111
Agricultural output, Tunisian prices	87	100	111
Internal terms of trade	102	100	100

Source: R. Blake, "Import Controls and Production in Tunisia during the 1960's," unpublished manuscript, table XI.

No calculation has been made for 1961 and 1971. If the figures can be extrapolated, there was no deterioration of the internal terms of trade over the period as a whole, as far as agriculture is concerned.

33. We can go one step further. The socio-economic groups who are the people below the poverty line consist primarily of poor farmers at or near the subsistence level, landless agricultural workers, seasonally and casually employed agricultural and urban workers and petty traders. Their incomes come largely from their own land; they live in their own houses. If they work for LCSD,<sup>25</sup> they are paid in kind and receive a small cash allowance. A large number of them are therefore outside the money nexus, or almost so. Those who live on earnings must buy mainly food and shelter whose prices are formed on the domestic market. Very few of them buy heavily protected domestic industrial products or imports that carry heavy duties, and the proportion of their income spent on these goods is not likely to be large.

34. It is therefore difficult to see how price policies might have affected the fortunes of the poorest. Even if the internal terms of trade have moved against agriculture, as they seem to have done after 1966, it is not permissible to equate a favoring of industry compared to agriculture with a favoring of the not-so-poor compared to the poorest. Of course, the income of farmers may vary with the weather, and the income of LCSD workers may fluctuate with the allocations in kind, but their income is largely independent of price policies. The price of imported goods hardly concerns them at all, and that of domestic industrial goods only a little.

35. Neither can wage policies explain why the per capita income of the poorest should have fallen. Cooperativization was followed by declines in output, but by 1971 this had been reversed. The members of the cooperatives received wage payments. The farmers adversely affected by being induced or forced to join cooperatives were not among the poorest. Agricultural wage rates were certainly not reduced. The only way in which the income could have been affected is through increased unemployment or underemployment. By 1970 or 1971 this is not likely to have happened as we have argued in sec. III(C) above.

---

<sup>25</sup>LCSD - Lutte contre le Sous developpement, a public works program, much of it reforestation, financed by PL 480 wheat and the Tunisian budget.

## B. Probable Effects of the Tax-Expenditure Problem

36. Table 4 and our discussion have already adduced evidence that the per capita expenditures on social matters excluding social security have increased from about  $8\frac{1}{2}$  D to 13.6 D (in 1971 prices), and to about 15.8 D when capital expenditures are added to current expenditures. While it is believed that social security payments benefit mostly persons above the poverty line, the other expenditures, particularly the health expenditures, have helped primarily the disadvantaged.<sup>26</sup>

37. Heavy investments in manufacturing, on the other hand, benefit mainly the urban workers. They benefit rural areas only indirectly, by creating employment for some of the migrants who move to towns. The heavy investments in mining almost certainly benefit the poor, while subsidies to manufacturing industries are advantageous to people above the poverty line.

38. Of the current budget, 39.7 per cent in 1961 and 46.9 per cent in 1971 went for social expenditures, which on balance, benefit the poorest more than the less poor. On the other hand, of total gross capital formation, about 23 per cent and  $12\frac{1}{2}$  per cent went for "Equipments Collectifs" in 1961 and 1971 respectively. However, they were 40.2 per cent and 24.3 per cent of total capital expenditures by government in 1961 and 1971 respectively.<sup>27</sup> On balance, capital and current expenditures are likely to be more or less neutral in their redistributive effort. In no case could they explain why the income of the poorest should have fallen. For not only that would require that none was spent for the less poor, but also that the poorest would actually lose already existing installations, for example, by not replacing a school or a hospital. This was certainly not the case.

39. With respect to taxing, we rely on a study by André Küpfer, who, on the basis of the Consumer Survey 1965-68, already mentioned, and

---

<sup>26</sup>See above table 4, and pars. 18, 19. See for detail, Peter S. Heller's chapter on health in this book (Chapter 6).

<sup>27</sup>Investment figures: INS, Tableaux Statistiques, 1960-1971, table 41. Government Capital Expenditures: J. G. Kleve, *op. cit.*, table 6. All figures in current prices.

various fiscal documents, has attempted to assess the progressivity of the Tunisian tax system. The shortcomings of the Consumer Survey handicap this study. The major result is found on table 12. The income classes which are characterized by a single figure refer to household incomes, and correspond to the classification of the Consumer Survey. It is not known why the progression of a presumably average income has been chosen in that particular way. Also, while the Consumer Survey refers to a series of years, the tax and customs duty rates refer only to 1970.

Table 12  
Progressivity of the Tunisian Tax System, 1970  
(in percent)

Income Class Type of Tax	167 D	257 D	337 D	380 D	427 D	502 D	965 D
<u>Direct taxes:</u>							
Wage tax	0.8	1.4	1.7	1.8	1.9	2.1	2.9
Income tax	-	<u>0.3</u>	<u>0.4</u>	<u>0.4</u>	<u>0.6</u>	<u>0.9</u>	<u>3.0</u>
Subtotal	0.8	1.7	2.1	2.2	2.5	3.0	5.9
<u>Indirect taxes:</u>							
Foods	5.6	5.6	5.5	5.1	4.9	4.6	3.4
Other	<u>5.9</u>	<u>6.1</u>	<u>6.2</u>	<u>6.5</u>	<u>6.2</u>	<u>5.9</u>	<u>5.7</u>
Subtotal	11.5	11.7	11.7	11.6	11.1	10.5	9.1
Total	12.2	13.3	13.8	13.8	13.7	13.5	15.1

Source: André Küpfer, "Die Progressivität des Tunesischen Steuersystems," unpublished manuscript.

40. Kupfer's findings suggest that direct taxes and the tax system as a whole are slightly progressive, indirect taxes on food are slightly regressive. The tax system appears to be proportionate except at the lowest and highest income classes, where it is progressive. Given the uncertainties of the basic data, the least that can be asserted is that the tax system is not regressive.

### C. Conclusion

41. We conclude that neither the effect of wage and price policies, nor the effects of the tax-expenditures can explain why the poor should have actually become poorer. Since we cannot find a mechanism by



which such a transfer of income could have taken place, we must conclude that on balance there cannot have been such a transfer. The policies pursued explain why the per capita income of those above the poverty line should have increased faster than that of people below it, but does not explain the actual decrease of their income.

42. This raises three questions. The Ten Year Perspective foresaw "the end of poverty" by the close of the decade. This aim has not been achieved, yet that hardly proves a failure of policy. It only proves that the initial aim was overly ambitious. The fact that the number and percent of people above the poverty line has substantially increased is a great achievement and proves that the policy pursued was certainly not antisocial.

43. The second question is this: If there has been no redistribution of income from the poor to the less poor, how did the income of the less poor rise? Related is the third question: Could the initial aim of eradicating poverty (bringing all incomes to or above the established poverty line, which was the intent of the Ten Year Plan) have been achieved by a different policy? We now turn to these questions.

## V. Income Distribution and Output Per Man

### A. Income Distribution Within the Two Income Groups

44. The Institut National de Statistique has calculated Gini coefficients for various economic sectors<sup>28</sup> (see table 13). These figures indicate that income distribution has become more evenly divided within the groups under the poverty line, particularly in Agriculture and Trade where most poor people make their living. While incomes of those people who were above the poverty line have become more unevenly distributed, there are exceptions: "government" incomes have almost certainly become more evenly distributed, there seems to have been no change in the transport sector, and the change in industry is not very large.

---

<sup>28</sup>Since the draft of this chapter was first written, Chekir, op. cit., p. 65, has published some further results, which are incorporated into table 13. Unfortunately, not all sectoral figures seem to be available for all years. Also, we cannot be sure that both are calculated on the basis of comparable data. Therefore, the INS and Chekir data should not be directly compared, but should be used only to indicate a general trend.

Table 13  
Gini Coefficients by Major Economic Sectors  
1962, 1963, 1968, 1971

Sector	Year	1962	1963	1968	1971	Change	Comment
All			0.60	0.64			
Agriculture		0.49	0.56	0.42	0.40	fall	Mostly below the poverty line
Trade		0.45	0.57	0.56	0.38	fall	
Artisans		n.a.	0.58	0.50	n.a.	fall	
Others		n.a.	0.74	0.36	n.a.	fall	
Government		0.34	0.56	0.46	0.23	fall	
Industry		0.47	0.55	0.52	0.50	rise	Mostly above the poverty line
Construction, PWD		0.42	0.52	0.60	0.54	rise	
Transport		0.30	0.41	0.40	0.32	no change	
Liberal profession		n.a.	0.65	0.70	n.a.	rise	

Sources: 1962, 1971: INS. 1963, 1968: Mekki Chekir, "Aspects de la répartition des revenus en Tunisie," Ministère de l'Economie Nationale, Conjuncture, Avril 1972, no. 2.

45. For certain manufacturing industries we can also compare average household income with the index of concentration which indicates a fairly even distribution (see table 14).

Table 14  
Gini Coefficients and Average Household Incomes,  
1971, by Major Manufacturing Industries

Industry	Average Household Income (dinar)	Index of Concentration
Building materials	762	0.41
Wood and furniture	814	0.42
Textiles, clothing, leather	868	0.41
Food industries	1 036	0.48
Paper, miscellaneous	1 371	0.50
Mechanical and electrical industries	1 369	0.53
Chemicals	1 399	0.51
All manufacturing industries	730	0.50

Sources: Ministry of the Plan. Calculations by J.G. Klève. Chekir, op. cit., gives average annual salaries by sector for 1960 and 1970, but publishes no Gini coefficients.

46. We note also that while there are, of course, rich people in Tunisia as there are elsewhere, including the USSR or China, the bulk of the people is modestly paid.<sup>29</sup> Civil service salaries, particularly the starting salaries of the senior service, are not outrageously high as they are in some other countries, and there appear to be no outrageously great antisocial perquisites, not only by international standards, but also compared to the rest of the Tunisian population. Urban and particularly industrial wages may be high considering the productivity of labor, but the answer to that problem is not to reduce modest wages but to raise the productivity of labor, as we have argued elsewhere.

47. It is, therefore, difficult to insist, as would be easy to show in some other countries, that a small urban group is exploiting the rest of the country. This is particularly true as the "rich" include also landowners whose incomes may rise even when the internal terms of trade move against them. Owning 10 hectares hardly makes a man a kulak, and the better-off include owners of one to two ha. irrigated land that produces vegetables and is well located with respect to the market.

#### B. Wage Payments and Value Added

48. The final piece of evidence we adduce relates to the share of wages and salaries in value added. As table 15 shows, that share is very high by international standards, and it seems to have risen. The meaning of those figures differs, however, according to the context. Little, Scitovsky and Scott interpret the fact that the share of wages and salaries in value added is "significantly smaller" in some underdeveloped countries than in advanced countries as meaning that "import substitution has probably also favored profits over wages within (the manufacturing sector," and that as a consequence "one would expect income

---

<sup>29</sup>This point seems worth stressing. A country exhibits a considerable amount of self-help in a willingness to accept comparatively low salary levels. A rough and ready measure to get an idea of the reasonableness of salary levels is to compare them with per capita GDP or national income. Average national income is estimated for 1970 as D 113.1 in current prices. Only agriculture and domestic services have lower average salaries. On the other hand, even petroleum salaries are only fifteen times that average, and government salaries only about seven times. For average salary figures, see table 18.

Table 15  
Wages and Salaries as Percent of Gross  
Value Added, Various Countries

<u>Country</u>	<u>Year</u>	<u>Wages and salaries as per cent of Value Added</u>
<u>Less developed country</u>		
Brazil	1963	18
Chile	1963	15
Colombia	1963	21
Ghana	1963	16
South Korea	1963	21
Mexico	1960	21
Iran	1963/64	19
Pakistan	1958	24
Paraguay	1963	27
Peru	1963	18
Taiwan	1961	12
<u>More developed country</u>		
Japan	1963	24
Sweden	1963	38
United Kingdom	1963	37
U.S.A.	1963	32
<u>Tunisia</u>	1960	44
	1963	48
	1970	51
	1971	54

Sources: Ian Little, Tibor Scitovsky, Maurice Scott, Industry and Trade in Some Developing Countries, London, 1970, p. 45.  
Comptes de la Nation, Rapport Mission, H. Durand, 1965, National Accounts, Ministry of the Plan.

distribution also to become more unequal."<sup>30</sup> Indeed, they find this to have been the case in some of the countries which they investigate.

49. The Tunisian figures seem to indicate, therefore, a movement to a more even distribution of income, at least within each manufacturing sector. Blake has established that since 1962, the internal terms of trade between agriculture and industry do not seem to have changed very

---

<sup>30</sup> Ian I.M. Little, Tibor Scitovsky, Maurice Scott, Industry and Trade in Some Developing Countries, Oxford University Press, London, 1970 (for OECD), p. 44.

much. On the surface it appears, therefore, that some import substitution has occurred which, unlike the countries investigated by Little and his associates, has favored wages over profits and hence has made the income distribution more equal.

50. Now, since it is an identity that wages and profits equal value added, if the share of one is larger, the other necessarily must be smaller. Little and associates base their reasoning on the fact that import substitution has led also to the substitution of more capital-intensive methods. It would be tempting, therefore, to conclude that, as in Tunisia the share of wages and salaries in value added is very high, this must be because policies have led to production with labor-intensive methods.

51. Unfortunately, quite the contrary can be shown to have been the case. In fact, methods of production have become more capital-intensive.<sup>31</sup> The reason for the high share of wages and salaries in value added is not the use of labor-intensive methods but the fact that productivity was low and profits inadequate. In table 16 we present figures for public enterprises in mining and manufacturing for selected years, which show that in only one of the years did public enterprise actually produce profits.

Table 16  
Profits, Depreciation, and Gross Saving, Public  
Enterprises, Mining and Manufacturing  
(000 D, current prices)

<u>Year</u>	<u>Profits</u>	<u>Amortization</u>	<u>Other Transfers</u>	<u>Gross Savings</u>
1963	+2 191	2 560	--	4 751
1966	-1 586	6 522	+1 041	5 977
1967	-1 494	7 182	-1 044	4 644
1968	-3 136	8 829	- 164	5 529
1969	-3 649	12 028	-1 496	6 883

Source: Calculated from balance sheets.

52. For 1970, we can give a breakdown by industry (table 17). It will be seen that the losses are concentrated, understandably, in

---

<sup>31</sup>See W. F. Stolper, op. cit., for evidence and calculation.

mining, less understandably in the mechanical and electrical industries, textiles, and paper. These were industries that received particularly heavy investments, in which capital-output ratios and capital-labor ratios were high, while output-labor ratios low.<sup>32</sup>

Table 17  
Profits, Depreciation and Gross Savings  
Public Enterprises, 1970, by Industry

Branches	Profits	Depreciation	Other	Gross Savings
Mining	-3.185	2.473	134	- 579
Food industries	1.127	1.761	- 732	2.156
Construction materials	136	2.291	- 302	2.125
Mechanical and electrical industries	- 748	2.582	72	1.907
Chemicals	975	505	- 164	1.316
Textiles, clothing, leather	- 379	1.603	- 207	1.017
Wood	- 53	63	- 257	- 247
Paper	-1.521	749	- 40	- 812
Total manufacturing indus.	- 463	9.555	-1.630	7.462
Total mining and manufacturing industries	-3.649	12.028	-1.496	6 883

53. We finally show the development of wages and salaries as a percentage of value added by branches between 1960 and 1970 (table 18). There may, of course, exist many different reasons why wages and salaries should increase as a percent of value added. Such institutional changes as the substitution of cooperatives for independent farmers or traders would convert what was formerly a non-wage income into a wage income. This might explain the increase in the percentage for trade and for other services, and might have explained it for agriculture, if our figures had shown such an increase. Because the figures are more certain for industry, we prefer to concentrate on that sector.

54. It will be noticed that average wages increased in all industries between 1960 and 1970. Their share in value added increased in all industries except the energy sector. This is, of course, a capital-intensive sector, but it is also an efficient one.<sup>33</sup> Of the manufacturing

<sup>32</sup>See Stolper, op. cit.

<sup>33</sup>Ibid.

Table 18

Wages and Salaries in Value Added, 1960, 1970, by Sector  
(current prices)

Sector	Wages and Salaries as % of Value added		1970 as % of 1960	Wages and Salaries per Employee (dinar)		1970 as % of 1960
	1960	1970		1960	1970	
Agriculture, fishing	18.7	11.5	62	94.6	80.0	85
Industry (w/o construction)	31.9	44.2	139	232	464	200
Mining	67.9	103.3	152	261	507	194
Energy	39.5	12.8	32	567	967	171
Petroleum products	negl.	4.0	-	-	1707	-
Electricity	39.3	35.6	91	785	985	125
Water, other energy	40.0	31.8	80	391	655	168
Manufacturing industries	26.5	59.5	225	206	416	202
Food industries	18.9	39.5	209	215	415	193
Construction materials	31.3	67.9	217	259	533	206
Mechanical, electrical industries	36.0	66.3	184	280	679	243
Chemicals, rubber	50.0	63.6	127	321	796	248
Textiles, clothing, leather, shoes	26.6	81.3	306	127	259	204
Wood, cork, furniture	46.7	64.7	139	156	331	212
Paper, printing, misc.	54.2	69.2	128	225	622	276
Construction, PWD	54.2	41.3	76	150	378	252
Services	25.9	40.5	156	239	624	261
Transport, telecomm.	42.1	40.5	96	275	782	284
Tourism	-	34.8	-	-	459	-
Trade	17.9	34.5	193	200	518	259
Other services	28.6	44.0	154	260	719	277
Domestic services				86	111	129
Government				470	782	166

Sources: J. G. Kleve, "La partie des salaires dans la valeur ajoutée industrielle," mimeo, Ministry of the Plan, 20 April 1973. Appendix table. Unpublished.  
Refers to wages and salaries without employers' contributions to social security.  
M. Chekir, *op. cit.*, p. 66, gives also figures for average wages and salaries, which differ slightly from the figures in this table for a few branches. The figures for government and for domestic services came from this publication. They are obviously 100 per cent of value added, or nearly so.



industries, the percentage of wages in value added increased least in chemicals and the wood, cork and furniture sectors. Both have been shown to be efficient sectors; the former has received large investments, but not the latter.

55. In the food industries, the percentage is the lowest, and its increase is associated with the investments particularly in the sugar mill. The high increases in the mechanical and electrical industries and textiles are in the face of heavy investments and a sign of low profits. The same would be true for the paper, printing and miscellaneous industries, if we were to single out the paper industry which received heavy investments: in 1970, wages and salaries were 60 per cent of value added, and 50 per cent in 1971 (the industry did not exist in 1960).<sup>34</sup> The high percentages are consistent with the losses of the industry shown on table 17.

#### C. Income Distribution and Capital Inflows

56. The wage and salary payments, most of which go to those above the poverty line, have thus been made at the expense of profits and depreciation. Since almost all large scale industries are publicly owned,<sup>35</sup> this cannot be interpreted to mean either that the technology employed was labor-intensive, or that there was a redistribution of income from profits in favor of wage and salary earners. The income rises of the less poor could be sustained only because the productive equipment of the country as, on balance, not maintained from the internal sources of the enterprises, and/or because on balance these enterprises did not adequately contribute to the growth of the country that actually did come about.<sup>36</sup>

---

<sup>34</sup>Ministry of the Plan, Les Salaries en 70 et 71. Mimeo, internal undated document. Table 1.1.

<sup>35</sup>For details, see Stolper, op. cit.

<sup>36</sup>Superficially, this might seem to be an example of those discussions which advocate a trade-off between employment and growth. However, wherever such a trade-off is advocated, the mechanism to achieve it is the substitution of more labor-intensive but less growth-producing techniques for less labor-intensive but more growth-producing techniques. It has been shown in great detail that the heavy investments produced neither adequate growth nor adequate employment--indeed, it was only the detail which could establish this fact beyond reasonable doubt. The point made in the text is quite different.

If the existing capital had on balance not been maintained and in part enlarged, the performance of the economy would have been substantially worse than it was. The conclusion must be that the necessary capital formation was financed in part by taxes, but to a very large extent by capital inflows from abroad. We have already pointed out that the tax-expenditure pattern was at least not regressive. We must conclude, therefore, that both the substantial growth and the improvement in the standard of living of the less poor was made possible by capital inflows. An incidental conclusion is that replacement of capital is likely to be a very large portion of gross investment.

57. Tunisia has indeed received large and sustained foreign capital inflow, much higher on a per capita basis than any country not at war (i.e. excluding such countries as Viet Nam).

Table 19  
Per Capita Inflow, Tunisia  
(U.S. dollars)

Years	Gifts and Public Loans	Private credits and Participations	Total Gross Inflow	Repayments and Interest	Total Net Inflow
1962 - 1967	16.20	10.20	26.40	- 6.50	19.90
1968 - 1971	21.20	10.70	31.90	-14.90	17.00

Source: Kleve, op. cit.

The Tunisian net per capita receipts are a multiple of the figures given by Little and associates<sup>37</sup> for the period 1962-1967 for Argentina (\$1.23), India (\$1.93), Pakistan (\$4.26) or even Taiwan (\$7.07), though Little, et al. give figures only for long-term capital inflows while the Tunisian figures include also contractor finance.

58. It is also known that capital is not always as well maintained as it might be with higher productivity. Thus agricultural tractors were at times left unrepaired and were replaced by new ones financed by foreign credit. This was due at times to the lack of trained maintenance personnel (and, indeed, training projects for mechanics have had

---

<sup>37</sup>Little, Scitovsky, Scott, op. cit., p. 52.

high priority). Yet it is a fact that in Tunis a large and ancient taxi fleet is somehow kept in running condition, which in turn suggests that the problem may be more one of incentives, institutional framework, and economic policy than of technology.

59. Thus, the deficits of the balance of payments on current account (which in the actual accounting procedures are considered to be part of the financing of gross domestic investments) can be shown to have in fact permitted the increase of wages and salaries of a substantially increased proportion of the population.

60. This conclusion is at least on the surface consonant with the findings of other investigators who have concluded "that foreign capital is a substitute for domestic saving." Some authors "have even gone so far as to suggest that foreign aid is likely to retard development," and at least one author believes that, as long as foreign repayable borrowing finances not only investments but also domestic consumption, increased savings will be insufficient to match the increased repayments so that the borrowing country may end up eventually with a lower capital stock, then it had before it began borrowing abroad.<sup>38</sup> We are in partial agreement only with the last finding.

61. Whether foreign capital is or is not a substitute for domestic savings, or whether it helps or hinders domestic development depends on what would have happened in the absence of capital inflow. Hypothetical questions can only be answered by reasoned guesses. In the first place, domestic savings did not actually decline over the decade. There is, therefore, no direct evidence of a substitution of foreign for domestic savings. Secondly, it is difficult to believe that the change in the economic structure during the first half of the sixties could have been made without the substantial capital inflows which were accompanied by a substantial domestic saving and tax effort. We have elsewhere been critical of the way in which the effort was made, but not of the effort itself. We have shown that many of the investments did not produce adequate results. This is not to say, however, that the absence of capital inflows

---

<sup>38</sup>Quoted and paraphrased from Raymond F. Mikesell and James F. Zinser, "The Nature of the Savings Function in Developing Countries: A Survey of the Theoretical and Empirical Literature," Journal of Economic Literature, Vol. XI, no. 1, March 1973, p. 14.

would have produced more growth. The implication is rather that less investments more productively employed would have been preferable.

62. As to capital inflows actually hindering development, that reasoning usually requires some detour into the political arena, such as the assumption that the capital inflows serve to maintain a traditional reactionary class in power at a high standard of living, which thus prevents the radical changes needed to achieve development. Such an argument is hardly applicable to Tunisia, where new people and radical approaches came to power with independence and were strengthened by the planning process. If anything, the capital inflows have allowed the radical changes to take place. Moreover, they have helped to increase the standard of living of a large proportion of the population rather than only a small oligarchy and may have been quite evenly distributed!

63. We do not dismiss the third argument (as summarized by Mikesell and Zinser) so lightly. It is in part a matter of arithmetic: if repayments of foreign loans rise at X per cent while income has risen insufficiently so that the resources available to repay the loans have risen only by (X-Y) percent, sooner or later there must be trouble. But this can occur whether or not part of the capital inflow is used to increase consumption. Even if part of the capital inflow is used to raise the standard of living of the population, if the rest of the capital inflow finances investments that are sufficiently productive, the dire results need not occur. Hence the relevance of the figures presented elsewhere that in many cases the investments have led to actual losses.

64. The central problem is thus the efficiency with which the resources available to Tunisia, both domestic and foreign, are converted into output. The remedies to the situation lie partly outside the borrowing country; the easing of the conditions upon which the capital inflow is received is ultimately determined by the lender. But to a greater extent the remedy lies within the power of the receiving country. It can limit its borrowing to amounts that can be efficiently used and it can control in the final analysis the manner and effectiveness with which it is employed.

#### D. Conclusion

65. We conclude that from a social standpoint the policies

pursued were successful, though perhaps not what had really been intended when the Perspectives were formulated, nor precisely what the foreign donor had in mind when he wished to lend for social purposes. There has been a real and substantial increase in the standard of living of the great majority of the population. There has not been any actual transfer of incomes from the poorest to the less poor and the increasing gap between the two groups may be more statistical than real.

66. But this improvement has been achieved at the expense of growth in a particularly untenable way, since it has involved an increase in foreign indebtedness without a commensurate increase in production. The policy changes that have been instituted after 1969 have already improved the situation. We conclude on the same note which the other papers have: The major economic policy problem and the central economic policy effort also from the social standpoint must be directed towards increasing productivity and hence value added. Attempts to limit higher incomes or to reduce them as drastically as the Perspectives foresaw would not only lead to major political problems; they would also have only very limited effects, and would help only to the extent to which the resources so distributed actually led to higher production.<sup>39</sup> This requires, first of all, an improved performance of the public sector. Attempts to influence the income distribution by affecting the composition of goods to be produced in favor of technologically labor-intensive goods (even assuming that this could be determined in a unique manner) are bound to come to grief on several points that have been discussed elsewhere, but primarily in the fact that, measured in terms of the share of wages and salaries in value added, production is already much too labor intensive! Improved productivity remains central from every standpoint. Without it, further attempts at a social incomes policy are bound to be abortive.

---

<sup>39</sup> Obviously, more consumption and less earnings would limit the future growth of income, and the redistribution unaccompanied by increased production would tend to be a once-for-all affair. Nothing that has been said implies, however, that there could not be progressive taxation. We do not enter this discussion here, however.







