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THE REAL INCOME OF UGANDA - 1954-1962

Official estimates of the Gross Domestic Product of Uganda have been available since 1960, when the Government Statistician published a series covering the years 1954-59. These calculations were in terms of current prices, a fact which (potentially, at any rate) impaired their usefulness for purposes of economic analysis and planning. Changes in the value of the national income are an amalgam of price and quantity changes; to the extent that we wish to use the national accounts as indicators of changes in aggregate welfare (and indeed for a number of other purposes), it is the quantity changes we are interested in, net of price effect. Changes in prices may be presumed to affect the distribution of national income (between consumption and investment, between wages and other incomes) rather than its overall magnitude. The exception to this is when we attempt to measure changes in resources available rather than in resources produced, when it is not the volume of exports that concerns us but their capacity to buy imports.

The recent publication of official estimates of the real growth of the economy of Uganda between 1954 and 1962^{*} therefore certainly fills a gap. It provides annual estimates, at 1960 prices, not only for G.D.P. overall but also for its main components, by sector, industry and commodity. Separate price indices are used for each major commodity or commodity-group, the values deflated being factor incomes for all sectors and industries, except African agriculture (cash and subsistence) where the approach is partially made from the production side. Altogether, this is a most ambitious undertaking, representing the results of months of painstaking and ingenious work. How ambitious, one only realises when reading its nearest Kenya equivalent (Dev. Plan '64-'70, ch.3) where the authors, seeking a measure of 'real' national income, contented themselves by deflating current the value of G.D.P. by the Nairobi (European) cost of Living Index, and left it at that.

Was it worth it? The question needs asking, for the time of economic statisticians is one of the scarcest commodities in Uganda and, unless one is a believer in the labour-theory of value, admiration for the 'input' should not obscure the need for a critical assessment of the 'output'. The relevant questions seem to be: do the price-adjusted figures differ significantly from the current values hitherto available? and: does the bringing to light of these differences significantly alter or add to our understanding of the workings of the Uganda Economy? (To these one should add the question, how reliable are the figures? Can we believe them? Important though it is, I do not intend to discuss it here in detail. Some of the assumptions are clearly chancy: it is assumed for instance, that in services, Government and construction, accounting for one sixth of monetary G.D.P., output of labour is proportional to employment: an assumption that clearly need not be true. Yet the conceptual difficulties of assuming anything else are such that it is hard to blame anyone for making this convenient and probably not too misleading assumption. One has, after all, no strong reasons to believe that the productivity of teachers or civil servants has been undergoing remarkable transformation, though changes in the "grade-mix" of these groups should ideally be taken into account, when time and statistical resources permit.)

* The Real Growth of the Economy of Uganda, 1954-62 Statistics
Division, Ministry of Planning, April 1964, (5/-)

At first glance, the difference between the adjusted and unadjusted figures of G.D.P. does not seem large enough to justify the work that has gone into its calculation. Whereas G.D.P. at current prices rose by 21%, the corresponding change in the 'real figure is 26.4%. Thus the overall "G.D.P. Price Index" shows a fall of 4%, implying that 'real' output per annum rose by 3.0% p.a. and not by 2.4% as would otherwise appear.

One begins to prick up one's ears, however, when the comparison is restricted to monetary GDP. This, while it rose only 15% over the period at current prices, shows a rise of 26% when adjusted for price-changes, and the resultant difference between the annual growth rates (1.8% and 3.0%) is certainly worth noting.

If the unwary reader thought that the 4% 'inflator' could be applied indiscriminately to all sectors of the economy, this study has a surprise in store for him. Separate price-indices have been calculated for each of the 14 producing sectors of the economy (with sub-indices for major sub-sectors). Five of these show price falls, ranging from - 1% to - 25%, while 9 show a price rise, ranging from 1% to 221%! Thus, while the current value estimates give a fairly accurate picture of the magnitude of the overall change in G.D.P., they clearly greatly distort changes in its sectoral composition. Broadly speaking, it may be said that the sectors in which prices fell or increased least are those producing goods, while the major price rises took place in the service sector. (Op. cit., p.16, Table 5.) While this overall picture is not really surprising and conforms to international experience (it is easier to increase productivity in making goods than in producing services, and easier in the private sector - which produces most goods - than in Government - which produces most services), it has serious implications, to which we shall return later.

TABLE I.

VALUES ADDED BY SECTOR AS PERCENTAGES OF G.D.P.

		1954	1960	1962	54-62 change in sector share of G.D.P. (%)	54-62 change in output (%)	
						Overall	per annum
AGRICULTURE	C.V.	65.9		55.6	- 10.3	+ 2.0	+ 0.24
	R.P.	57.6	56.5	55.1	- 2.5	+ 21.0	+ 2.4
COTTON GIN- NING ETC.	C.V.	3.0		2.3	- 0.7	- 6.8	- 0.83
	R.P.	3.4	2.5	3.0	- 0.4	+ 10.3	+ 1.2
FORESTRY ETC.	C.V.	3.0		5.3	+ 2.3	+115.7	+10.1
	R.P.	4.8	4.8	5.0	+ 0.2	+ 32.8	+ 3.6
MINING ETC.	C.V.	0.7		1.7	+ 1.0	+204.2	+14.9
	R.P.	0.8	1.5	1.9	+ 1.1	+195.6	+14.5
MANUF. OF FOOD	C.V.	1.2		0.8	- 0.4	- 15.2	- 1.8
	R.P.	1.2	0.8	0.7	- 0.5	- 20.9	- 2.4
MISC. MANUF.	C.V.	2.9		3.2	+ 0.3	+ 29.6	+ 3.3
	R.P.	2.6	3.2	3.1	+ 0.5	+ 50.2	+ 5.2
ELECTRICTY	C.V.	0.6		1.6	+ 1.0	+233.8	+16.2
	R.P.	0.5	1.3	1.4	+ 0.9	+237.0	+16.4
CONTRUCTION	V.C.	3.0		2.5	- 0.5	- 1.8	- 0.2
	R.P.	4.4	2.5	2.5	- 1.9	- 29.4	- 3.3
COMMERCE	C.V.	9.1		9.1	0.0	+ 20.4	+ 2.3
	R.P.	7.9	9.5	10.0	+ 2.1	+ 60.8	+ 6.1
TRANSPORT	C.V.	2.8		3.7	+ 0.9	+ 55.6	+ 5.7
	R.P.	3.1	4.1	3.8	+ 0.7	+ 54.0	+ 5.5
GOVERNMENT	C.V.	1.9		3.1	+ 1.2	+106.0	+ 9.5
	R.P.	3.0	2.7	2.8	- 0.2	+ 20.5	+ 2.3
AFR. LOC GOVT	C.V.	0.7		1.5	+ 0.8	+148.2	+12.0
	R.P.	2.1	1.5	1.3	- 0.8	- 22.6	- 2.6
MISC. SERVICES	C.V.	4.1		7.3	+ 3.2	+118.7	+10.3
	R.P.	6.6	6.9	7.1	+ 0.5	35.1	+ 3.8
RENTS	C.V.	1.1		2.3	+ 1.2	+157.8	+12.6
	R.P.	2.0	2.2	2.3	+ 0.3	+ 42.6	+ 4.5
TOTAL		100.0	100.0	100.0		C.V. + 20.9 R.P. + 26.4	+ 2.4 + 3.0

C.V. = Current Values

R.P. = Real Product of 1960 prices.

It will be seen from the table above that agriculture decreased its share in GDP by 10% at current prices, but by only 2½% at constant prices. Thus, agricultural output grew slightly slower than GDP as a whole, while agricultural prices fell substantially. As a result of these factors, agricultural incomes (including subsistence) now form a little over half of total domestic incomes, compared to nearly two thirds in 1954.

Historical experience leads us to expect that the share of agriculture in GDP declines as per capita incomes grow, as demand for agricultural products tends to be inelastic with respect to changes in per capita income. Indeed, one would expect that, if development proceeds at a satisfactory rate, over the next generation the share of agriculture in G.D.P. will drop to about a quarter. Can we, however, assume that the decline shown in the table above is an example of such a historical trend?

A 'satisfactory' transfer of emphasis from agriculture to other producing sectors would generally imply that:-

- (i) population is being fed at least as well as before, i.e. the real growth of agricultural production (excl. exports) is at least as fast as the overall rate of growth of population, and that the growth of food sales to urban areas is keeping pace with urban population growth;
- (ii) this increase in production is being achieved with a diminishing input of real resources, certainly in relative terms, and probably even in absolute terms. I.e. one would expect agricultural population to be growing slower than the total adult population, and possibly even falling. We would expect the area of cultivated land to be growing slower than output (indicative of rising output per acre), but to be growing faster (or falling slower) than the labour force (indicating rising output per man-acre);
- (iii) Thus there would be an annual transfer of real resources from agriculture to other activities, while the growth of agricultural output would be maintained at a rate at least equal to the rate of growth of population. This is absolutely essential, if the growing number of non-food producing consumers is to be adequately fed. If this does not happen, the momentum of industrialisation can only be maintained by increasing food imports, the opportunity cost of which is imports of capital equipment.

On first examination it would appear that the performance of Uganda agriculture was, on these counts, highly unsatisfactory during the period under study. Real output is estimated to have grown at a rate of 2.4% per annum, or less than the rate of population growth, which is estimated at 2½%, may be higher, and is certainly rising. During this period, net imports of food from outside East Africa grew at an annual rate of over 5%. Before committing ourselves to this view of the performance of agriculture, let us take a closer look at the 'real' behaviour of the internal components of agricultural output.

TABLE II

	1954-62 Percentage Real Change:		Sub-sector as % of '54 output
	8-year	Per annum	
Overall growth of Agric.	21.2	2.4	100.0
African Enterprises	11.3	1.3	51.3
of which: Cotton #	-50.1	-5.2	23.1
Coffee	277.5	18.0	4.4
Prod.Un. Surpl.	- 1.5	-0.2	0.9
Misc. Exports	-48.1	-5.0	2.7
Sales to rural empl	- 3.6	-0.4	3.1
Sales urban Afr.	25.7	2.9	0.7
Sales to non-Afr.	42.4	4.5	1.7
Rwanda porters	nil	nil	0.1
Livestock	84.9	8.0	5.5
Milk	48.7	5.1	1.8
Beer	20.3	2.3	7.8
Less: Inputs from other ind.	75.7	7.3	-0.5
Corporate & Non-Afr. Agric.	79.7	7.6	3.9
Agr. Prod. by Publ. Sector	36.8	4.0	0.7
Subsistence Agriculture	26.8	3.0	44.1

1962 was an exceptionally bad year for cotton, but average 55-61 production was still way below the 1954 level.

Examination of the growth-rates of the main sub-sectors changes our picture somewhat. We have seen that estate production, public sector output and the subsistence sector all grew at a rate exceeding that of population, and that the "culprit" (if there was one) was the sub-sector "African Enterprises", which grew at a rate of only 1.3% per annum. This unsatisfactory figure was, however, due almost entirely to the disastrous 1962 cotton crop. If for the actual 1962 output we substitute the 1955-61 average, the growth-rate for agriculture as a whole and also for the agricultural output of "African Enterprises" becomes 3.4% per annum.

While this is clearly more satisfactory, it is still far from splendid. Firstly, an annual rate of growth of 3.4% still only barely exceeds the rate of population growth. Secondly, (counting cotton at the 55-61 average), 70% of the total increase in production was due to coffee. Yet, the virtual quadrupling of coffee production only increased actual export receipts by 26% (or 19% if we count power to command imports). It is not obvious that an investment which quadruples output but increases receipts by a fifth, is necessarily a good one. Thirdly, if we concentrate our attention on food production for the domestic markets, the apparently satisfactory growth-rates melt in our hands. They are assumed rather than proven: sales to rural and urban Africans and to urban non-Africans were calculated on the assumption of constant food-consumption per capita by these groups!! Thus the growth rates tell us no more than the official estimate of the growth of the number of these people. This is no criticism of those who prepared this most valuable publication, but an illustration of the limits to the uses to which it may legitimately be put. It would, however, be useful if, in future publications, some of the more important limitations were specifically pointed out in the introduction.

No other producing sector is analysed in the same sort of detail as agriculture, for obvious reasons. It is, however, most instructive, to observe the - often striking - differences when the 14 producing sectors are ranked, first in order of 'real' growth-rates and then in order of 'money' growth-rates.

TABLE III

Uganda G.D.P. - Real and Money Growth Rates Compared

Sector	Real Growth per annum	Money Growth per annum	Rank Real Growth	Rank Money Growth
Electricity	16.4	16.2	1	1
Mining	14.5	14.9	2	2
Commerce	6.1	2.3	3	10
Transport & Comm.	5.5	5.7	4	8
Misc. Manufact.	5.2	3.3	5	9
Rents	4.5	12.6	6	3
Misc. Serv. (Ed ⁿ , health)	3.8	10.3	7	5
Forestry, fishing, hunting	3.6	10.1	8	6
GROSS DOMESTIC PRODUCT	3.0	2.4		
Agriculture	2.4	0.2	9	11
Central Govt.	2.3	9.5	10	7
Cotton-gin. coffee-cur'g. sugar-manufacturing	1.2	-0.8	11	13
Manuf. of food production	-2.4	-1.8	12	14
Afr. Local Govt.	-2.6	12.0	13	4
Construction	-3.3	-0.2	14	12

(A money rate of growth of more than 2.4% implies that incomes derived from a particular sector have increased their share of Gross Domestic Product and vice versa. If the money rate of growth exceeds the real rate, a rise in prices is suggested, if the reverse is the case, a fall. Very roughly speaking, a price-rise in a sector, which is greater than that for G.D.P. as a whole, suggests that goods produced by that sector have become more expensive relative to G.D.P.)

as a whole. As the price-index for G.D.P. as a whole fell by 4% over the period, any price rise, and any price fall of less than 4% carries this implication. This appears to have happened in African Local Govt. (+221%), Rents (+81%) C. Govt. (+71%), Forestry, Fishing & Hunting (+62%), Misc. Services /mainly education & health/ (+62%), Construction (+39%), Manufacture of Food Products (+7%), Mining & Quarrying (+3%), Transport & Communications (+1%) and Electricity (-1%). The products of agriculture, cotton ginning etc., misc. manufacturing & commerce have become 'cheaper'. These calculations are too rough to prove that any particular group has become better or worse off, unless its consumption pattern exactly corresponds to the production-pattern of GDP. They do, however, suggest very strongly that there has been a strong shift in the 'internal terms of trade' against the agricultural population and in favour of the urban wage- and salary-earning minority. To be much more specific would require budget-studies of a kind which we neither have nor are likely to have in the near future.)

Table II identifies the 'leading' and 'lagging' sectors of the economy. It will be noticed that only electricity (covering both generation and construction), mining, commerce, transport and miscellaneous manufacturing achieved 'real' growth-rates which could be characterised as really satisfactory. No doubt, the reader will be surprised, as the writer was, at the comparatively slow (even negative) growth-rates shown by the public sector. However, the purpose of the present discussion is not to explain the factors making for fast or slow 'real' rates of growth, but to focus attention on the striking disparities between 'real' and 'money' growth-rates which the table reveals and to explore some of their possible implications. It should be clearly noted that, in the discussion which follows, we are provisionally accepting the Government Statistician's own definitions and calculations of real product in the services sector. In the last section of the paper, reasons will be advanced to show that the definitions, and hence the calculations based on them, are open to serious doubt.

Central and Local Government and Miscellaneous Services (mainly Health and Education) may be roughly described as 'Publicly Provided Services', though both education and health contain a significant private element. These sectors increased their share of 'current value' G.D.P. by nearly 80% (from 6.7% to 11.9% of G.D.P.), while their share of 'real' G.D.P. actually fell by 4% (from 11.7% to 11.2% of 'real' G.D.P.), implying that Ugandans as a whole were paying a much larger share of their incomes for what was not very much more service. The implied 'unit cost' (whatever this is taken to mean) of Central Government service rose by 71%, that of local government by 221% (while 'output' actually fell!), while the cost of Miscellaneous Services rose 62%. Altogether, it would appear that Publicly Provided Services are costing Uganda 120% more money for 20% more services, or that the average price level in this sector rose by 81% (or 85% in relation to G.D.P. as a whole) between 1954 and 1962. Admittedly, these sectors are the heaviest users of Uganda's very scarce supply of 'high level manpower' - Hunter's Survey suggests that in 1962 the 'service sector' as defined above used three quarters of the country's graduates or graduate - equivalents. Demand - both public and private - for the products of these services has been one of the phenomena of the 'revolution of rising expectations.' It is understandable, therefore, that earnings per head in these sectors should have risen faster than the rate of growth of G.D.P. whether measured at current or at constant prices.

≠ The Spearman Rank Correlation coefficient between the two series is only 0.56.

TABLE IV

Growth of G.D.P. and Per Capita Earnings, 1955-62

Sector	1955-62 % Growth	All Wages as % of value added, 1958
1. Monetary G.D.P.	4.9	23.3
African Earnings/Capita in:		
2. Total Labour Force	104.5	---
2(a) Government(Admin. and Misc.)	93.6	69.1
2(b) African Local Government	150.2	97.5
2(c) Education & Medical	95.7	58.6
2(d) Miscellaneous Services	64.9	
3. (= 2(a) - d) All Services	117.1	66.6

(Source: Enumeration of Employees, Statistical Abstract, 'Real Product' op. cit.)

As the table above shows, African per capita earnings \neq doubled over the period 1955-62 (no 1954 earning figures are available), while monetary G.D.P. increased by only 5% (and 'real' G.D.P. by only 16%). Thus labour in all sectors became more expensive relative to a 'unit of G.D.P.' (though it is conceivable that this was partially offset by increased productivity). The reason why the products of the 'service industries' appear to have become more expensive in relation to G.D.P. as a whole, is only partly explained by the fact that per capita earnings in these sectors rose faster than in the rest of the economy (the rise in services being only 117% compared to 105% for all earnings). It is rather because wages in these sectors constitute two thirds of value added, compared to less than a quarter for the monetary economy as a whole.

One must presume (though information is too scanty to prove it) that per capita earnings in the higher skill-groups rose as fast as other earnings in those sectors, and in fact constituted a major part of the increase in wage-bills in the sectors under discussion. This can, of course, be attributed to the growing scarcity of skilled personnel relative to other labour and to other factors of production. \neq Yet, one must seriously doubt whether price-(and by implication, salary-) increases of this order of magnitude have served any useful economic purpose. The short-run supply of these factors is inelastic with respect of changes in their price, and the long-run supply is, in any case, being expanded as fast as possible. The allocation problem created by the short-run excess demand had to be solved, but it could, perhaps, have been tackled to better advantage by some form of demand-rationing, rather than by allowing supply-prices to rise to this extent. It cannot, after all, be argued that the remuneration of 'professionals' in relation to other occupational groups was so low in 1954 that there was no financial incentive to enrol for courses in higher education.

Be that as it may, had this happened in any other sector, there would have been no lack of volunteers to argue that here was a prima facie case of a 'monopolist' pushing up prices by restricting output, or, at the very least, that someone was earning monopoly profits (or 'rent') as a result of unavoidable scarcity. Yet, it would appear, a Government is in an even stronger position than the hypothetical monopolist. The monopolist can either fix his price or his quantity, but not both. A Government is in a position to determine independently first price (through taxation) and then quantity (through its pattern of expenditure). Had it been the price of sugar or fountain-pens that was being determined in this fashion, it would soon have been undercut by imported or domestic substitutes. But no one who thinks that education or the civil service are atrociously expensive, has the alternative of opting out of paying his taxes, and 'buying his government' elsewhere (or doing without one). Indeed, he hasn't

\neq No information is available for non-African earnings prior to 1958. Though 58-62 information suggests that African per cap. earnings have been rising half as fast again as all earnings per cap. taken together, this does not affect the picture given above significantly.

\neq Other wage-incomes also rose at several times the rate of growth of G.D.P. without even the justification of scarcity, as employment overall was stagnant or falling.

even the option (which he would have, were these activities in the private sector) of demanding that these services be nationalised!!

To some extent this is the old question of 'quis custodiat ipsos custodes'? To an important degree, however, it is a new problem, demanding new solutions. Services (public and private, but mostly public) already account for over a fifth of G.D.P. and over a quarter of monetary G.D.P., and their share (especially that of publicly provided services) is likely to rise still further. Without the chilly winds of competition and that stern task-master, the annual balance-sheet, what is to keep them from battering on the rest of the economy? How is the average citizen, nay, the average Minister, to judge that the unit-costs of public services are getting out of hand, and then force them to improve their efficiency?

At this point the reader's attention must again be drawn to the government statistician's method of calculating real product in the service sectors. This is, to assume that real product varies in exact proportion to members employed. Productivity per head is therefore assumed to be constant, ~~no~~ allowance being made even for the rising proportion of the highly skilled within the labour-force. The reason for such a (theoretically indefensible) procedure is not far to seek: it lies in the difficulty of first defining and then measuring, (independently of factor-incomes and expenditure) what the output of the service-sector is. The first step, therefore, lies with the economic statisticians, in collaboration with the relevant professions (teachers, doctors, judges, etc.). Until they can define, crudely perhaps, but yet in a meaningful and measurable way, what a 'unit' of health, education or justice is, there is no possibility of really calculating costs per unit of output. The consequences of failing to do so have been shown above: neither the reader nor the writer can feel sure whether the disturbing picture, painted on the previous pages, is true or merely a figment of a statistician's imagination.

One can sympathise with the national income statistician's reluctance to be drawn into such an exercise. Once the basic canon of Income = Output is broken, and one starts counting outputs that generate no visible incomes, there is no logical stopping place. And yet, the case for doing just this (perhaps in an alternative presentation of the National Accounts), seems exceedingly strong, for the reasons advanced above. However open to attack any chosen definition of medical or educational productivity might be, it will be nothing like as arbitrary as the present convention employed, i.e. that it is always constant. Moreover, experience shows that economists and members of the relevant professions concerned can agree on some definitions that could be used. Even the crudest concept of using total school enrolments as an index of output has something to be said for it, and the use of the total number of examination passes at various educational levels has a great deal to be said for it. It would still understate productivity, to the extent of not weighting a brilliant against a bare pass, but not by anything like as much as the present convention of assuming constant productivity per teacher. Similar concepts could also be developed for other branches of the "Services" sector. They would be crude, but they should take us a great deal nearer the truth than we are today. The experience of the Soviet Union with "success indicators" ~~may~~ may well give a lead. If it achieves nothing else, such an effort should introduce a spirit of cost-consciousness into a large sector of the economy where today it is woefully lacking.

≠ For the consequences of assuming constant unit-prices (i.e. rising productivity) in services cf. P.G. Clark, "The Rationale and Use of a Projection Model for Uganda," EDRP 39, 1964. P.6 and P.2 (foot note).

≠≠ Cf. Alec Nove: "The Soviet Economy", ch. 6, incl. references.

APPENDIX 1, Table 1.

- 9 -

African Employment and Earnings in Uganda 1955-62

	Sector		1955	1958	1962	1955-62 % change	Equi- valent annual % change
1	Agriculture (including cotton-ginning, coffee-curing, forestry, fishing, hunting)	wage-bill (000-s)	1486	1675	2,914		
		Employment (000-s)	59.9	57.0	56.9		
		Earnings/man	24.8	29.4	51.2	106.4	10.9
2	Mining & Quarrying	Wage-bill	180	197	487		
		Employment	6.7	3.9	5.1		
		Earnings/man	26.9	50.5	95.5	255.0	19.8
3	Manufacture of food products (including sugar)	Wage-bill	341	363	563		
		Employment	11.2	7.0	7.6		
		Earnings/man	30.4	51.9	74.1	143.8	13.6
4	Misc. Manufac- turing (including electricity)	Wage-bill	785	1105	1538		
		Employment	15.2	18.2	17.1		
		Earnings/man	51.6	60.7	89.9	74.2	8.3
5	Construction	Wage-bill	1,844	2,058	2109		
		Employment	40.5	36.6	28.6		
		Earnings/man	45.5	56.2	73.7	62.0	7.1
6	Commerce	Wage-bill	309	722	1035		
		Employment	5.5	10.2	10.5		
		Earnings/man	56.1	708	98.6	75.7	8.4
7	Transport and Communication	Wage-bill	628	964	1091		
		Employment	8.6	10.4	9.0		
		Earnings/man	73.0	92.7	121.2	66.0	7.5
8	C. Government Admin. and Misc	Wage-bill	830	1251	2180		
		Employment	11.5	14.3	15.6		
		Earnings/man	72.2	87.4	139.8	93.6	9.9
9	African Local Government	Wage-bill	1094	1,764	2,203		
		Employment	35.4	35.9	28.5		
		Earnings/man	30.9	49.1	77.3	150.2	14.0
10	Education and Medical	Wage-bill	1,369	1756	3270		
		Employment	20.7	19.1	24.9		
		Earnings/man	67.1	91.9	131.3	95.7	10.1
11	Misc. Services	Wage-bill	611	929	1179		
		Employment	11.1	15.6	13.0		
		Earnings/man	55.0	59.6	90.7	64.9	7.4
12	Total Economy	Wage-bill	9,477	12766	18,569		
		Employment	226.3	228.4	216.8		
		Earnings/man	41.9	55.9	85.7	104.5	10.7

APPENDIX, TABLE 2.

NON- AFRICAN EMPLOYMENT & EARNINGS BY SECTOR, 1958-62.

	Employment (000.s)				Wages (£ 000.s)				Average earnings (£)				1958-62 % change in average earnings	
	1958		1962		1958		1962		1958		1962		Eur.	Asian
	Eur.	Asian	Eur.	Asian	Eur.	Asian	Eur.	Asian	Eur.	Asian	Eur.	Asian		
AGRIC.	200	1143	176	1193	265	605	283	686	1325	529	1608	575	21.3	9.7
MINING & QUARRYING	152	138	188	194	206	86	320	156	1355	623	1702	804	25.6	29.4
MAN. OF FOOD PRO- DUCTS	40	622	42	711	57	336	71	407	1425	540	1690	572	18.6	5.9
MISC. MANU- CTURING	516	1628	382	1454	669	832	665	778	1297	511	1741	535	34.2	4.7
CONSTRUC- TION	559	1310	358	814	702	677	590	455	1256	517	1648	559	31.2	8.1
COMMERCE	670	2885	551	2968	812	1517	830	1670	1212	526	1506	563	24.3	7.0
TRANSPORT & COMMUNI- CATION	236	703	172	620	266	356	268	362	1127	506	1558	584	38.2	15.4
GOVT. & (ADMIN- STRATION)	822	374	636	357	1061	228	1109	264	1281	610	1744	739	35.0	21.1
AFR. LOCAL GOVT.	53	36	31	33	71	24	54	26	1340	667	1742	788	30.0	18.1
EDUC. & MEDICAL SERVICES	852	701	1182	1072	979	444	1542	722	1149	633	1305	674	13.6	6.4
MISC. SER- VICES	533	422	423	490	639	216	560	249	1199	512	1324	508	10.4	-0.8
TOTAL:	4633	9962	4141	9905	5727	5321	6291	5774	1236	534	1519	583	22.9	9.2