

## USES OF NATIONAL ACCOUNTS IN AFRICA

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## I. DIFFICULTIES OF CONSTRUCTION AND INTERPRETATION OF NATIONAL ACCOUNTS IN AFRICAN TERRITORIES

ATTEMPTS to construct national accounts in African countries have only become widespread in the last five years. Whereas in 1945 national accounts were published on a regular basis only for South Africa, by 1949 they had been initiated also for Southern Rhodesia and Northern Rhodesia (money economy only). By 1958 annual published estimates were also available for Ghana, Kenya, Tanganyika, Uganda and the Congo. For a number of the French territories the construction of a *tableau économique* for the year 1956 was far advanced. A first estimate of national product had been made for Nigeria in 1950-1, though the second had to wait till 1960. In 1959 the first analysis of accounts for the public sector was undertaken in Mozambique, and it is planned to enlarge these estimates to cover other sectors of the economy.

The relatively slow development of these statistics has been due to the special difficulties which must be faced in Africa, where much of economic activity in the rural areas escapes recording. The output of agriculture for local consumption is especially difficult to assess. Where registration of title to land is unknown and there is shifting cultivation, the acreages tilled each year are difficult to estimate. Yield figures are also uncertain because of the high variability shown by African soils. Further difficulties arise from the widespread practice of mixed cropping in foodstuffs. In such circumstances routine output data for foodcrops are unreliable and improvements upon them costly to secure. The resulting aggregates are known to be subject to considerable error, especially where subsistence output forms a large component of rural income.

In some African countries estimates are nevertheless based upon production statistics derived from Agricultural Department records and other routine sources, while Agricultural Census and Sample Census methods are being devised to improve the quality of the figures. But there is also a tendency to use consumption estimates either as a substitute for or as a

check upon production. Thus subsistence output has been assumed equal to subsistence consumption, estimates of which have in some countries been derived from household budget data. Household budget data have also been used to estimate other small-scale rural production of goods and services upon the same assumption.

Unfortunately the household budget data can be expected to do little, if anything at all, to improve the reliability of estimates of rural sector output even for foodstuffs. Even in industrialized societies, with a simple social structure, the derivation of national aggregates by multiplying up of household budget averages would be considered a highly dubious procedure. In Africa it is a method of still more doubtful reliability, because of the complexity of social structure, especially in rural areas. The major problem is that the rural 'household' unit is not identical with the biological unit.<sup>1</sup> 'Households' are usually larger than the biological unit, either consisting of several biological units together in an undivided family (e.g. the Muslim peoples of Northern Nigeria) or consisting of blood kin alone with existing biological units split between different 'households' (as in the Akan<sup>2</sup> tribes of West Africa).

To secure reliable averages of *per capita* consumption in such circumstances is even more difficult than in Western European or North American conditions, especially since the 'housewife' herself in African rural areas cannot read or write. For rural African society contains as yet very few literates. Budgets have to be recorded on behalf of the 'housewives', and there is consequently a danger that misunderstandings will characterize both question and answer in such complex households. Still worse is the likelihood that records will be based on the women's memories to reduce costs of interview. Some household budgets have been openly retrospective, covering long periods such as a month or week, although field experience has shown that the African's memory for quantities and expenditure is no better

<sup>1</sup> Husband, wife (or wives) and children.

<sup>2</sup> Thus in the Akan society of West Africa a man shares a roof with his mother and sisters, while his wife or wives live with their own brothers and sisters or mother. The difficulties of relating the quantities cooked to a given number of consumers is illustrated best from Akan society. Here wives have the obligation of sending part of any meal prepared to their husbands, while the man receiving food has the obligation of inviting his own blood relations to partake of it, if they are present when it comes. He also is given food by his sisters or mother when they prepare a meal for their own husbands and children. In such circumstances reliable *per capita* averages cannot easily be obtained.

than that of any other community. Since retrospective budgets are well known to be unreliable both as to the estimated consumption of any item and as to the proportion of expenditure devoted to the different items, the grossing up of any *per capita* estimates so derived is not to be recommended.

There also arises the additional problem of valuation of items produced by 'households' for their own use, especially in thinly populated areas where local markets are far apart. *Valuation* is a problem which has been much discussed<sup>1</sup> in the literature, the choice between retail market prices on the one hand and ex-farm prices on the other being the two extremes of a whole range of imputations of services rendered by households to themselves. Since the precise degree of imputation is not always explicitly stated, the valuation of rural sector output in each component of the product aggregate introduces a further uncertainty into their structural relationship to G.N.P. especially where these elements are partly self-produced.

Finally, all estimates of aggregates derived from household budgets or other rural surveys have to be multiplied up by suitable factors to give national totals. This process presupposes adequate population statistics, but even these are not available in Africa. Population censuses proper began to be taken in many African territories only after 1945. While some of the British West African territories had attempted complete enumeration in 1931, others began censuses proper only recently. Northern and Southern Rhodesia even now have had no more than a sample census of African population.

Even where censuses have had a fairly long history, recent census work has shown that the improvements in enumerating are still taking place. Nigeria, which had its first complete enumeration in 1931, has found in each of her two postwar censuses that numbers were far higher than could be explained by natural increase, even allowing for some immigration. Migratory movements of population are also very large. Ghana's population, last enumerated in 1931, was estimated at 4 million in 1951 and was expected to be 5 million at most in 1960, whereas in fact 6.7 million inhabitants came to light.

<sup>1</sup> See P. Deane, *Measurement of Colonial National Incomes*, Cambridge U.P., 1948; A. R. Prest and I. G. Stewart, *National Income of Nigeria 1950/1*, *Colonial Research Studies*, No. 11, H.M.S.O., London; Peacock and Dosser, *National Income of Tanganyika 1952-1954*, *Colonial Research Studies*, No. 26, H.M.S.O., London, 1958.

Thus even if firm *per capita* estimates of output or expenditure could be derived, the aggregate value to be placed upon these would be subject to wide and incalculable margins of error because of population factors alone.

Finally, there are other items produced in rural African economies which tend to escape adequate recording. Some of these are covered by budgets, but similar shortcomings characterize the averages obtained and the aggregates derived from them.

Given all these potential sources of error and of differences in usage, the interpretation of the resulting aggregates of national product is subject to serious limitations. The Table below gives estimates of Gross Product by Industrial Origin for seven African countries, but while each contains estimates of subsistence and other rural sector output, few<sup>1</sup> amongst them have defined explicitly the way in which these are distributed over the various industrial sectors.

Nor is there hope of immediate improvement in national product statistics, despite the now regular publication of official estimates. While it must be recognized that the use of household budget data is only an indifferent substitute<sup>2</sup> for production and manpower statistics, the development of these others will take time. In agriculture methods of census or sample census have to be devised for systems of shifting cultivation and mixed cropping. In population data multiple occupations are a major difficulty, especially in the rural sector.

We must conclude, therefore, that with the data available, estimates of domestic production in the rural sector are likely to be very 'soft' figures. Does this render national accounts valueless in Africa? The usual aggregates are certainly valueless, at present, for certain purposes: welfare comparisons using *per capita* income, for example, are obviously nonsensical when income estimates themselves are in part derived by multiplying up *per capita* averages of doubtful accuracy by population estimates equally subject to error.<sup>3</sup> Again concepts such as the

<sup>1</sup> Notable exceptions are the accounts for the East African territories and for the Federation of the Rhodesias and Nyasaland.

<sup>2</sup> Not only are they equally subject to error, but they give no indication of changes in stocks and may therefore differ considerably from amounts actually produced in the same period.

<sup>3</sup> e.g. there is at least one African country whose *per capita* income figures were revised upwards by 75 per cent in recent years, even before the increase in total numbers was discovered.

TABLE I

*Gross Product by Industrial Origin*

	A.O.F. 000 m. frs.	Congo 000 m. B. frs.	Kenya	Tanganyika	Federation of Rhod. and Nyasal.	Nigeria £ (million)	South Africa
			£ (million)				
Agriculture, forestry and fishing	271.2	16.5	87.3	98.1	90.7	556.0	237.9
Mining and quarrying	2.0	10.3	1.1	6.2	63.6	9.4	221.4
Manufacturing <sup>a</sup>	17.2	7.7	20.5	13.6	49.7	27.6	451.8
Electricity, gas and water	1.4	—	2.2	1.0	10.3	2.1	—
Construction	14.7	3.5	8.4	10.6	37.2	43.0	—
Transportation <sup>a</sup>	12.3	5.7	17.7	11.9	28.4	77.7	144.8
Distribution <sup>a</sup>	62.6	4.7	26.4	14.8	43.7	—	233.9
Ownership of dwellings	—	2.8	7.5	3.4	8.7	10.3	44.8
Public administration and defence	47.1	8.6	20.5	11.3	17.7	30.5	168.5
Miscellaneous services	12.1	3.2	16.4	4.8	99.2 <sup>c</sup>	152.1 <sup>d</sup>	222.4
	440.6	58.4 <sup>b</sup>	208.0	176.0	449.2	909.7	1788.3

a. Including traditional small-scale units in rural sectors.

b. Less a general deduction for imports of 4.6 B. frs. (000 m.).

c. Includes African subsistence household services (£35.2 m.).

d. Including distribution.

propensity to import and to consume lose their clear-cut definition when a large part of income is self-produced. The logic of basic Engel relationships is obscured by this identity of income and consumption in foodstuffs and other items of auto-consumption. Even the Multiplier loses some of its force when it is recognized that much rural sector investment may be of this subsistence type, e.g. digging of wells, drainage, house and dam building and even school building. Since this investment is 'financed' by working longer hours without pay for oneself or one's own community, it adds to national capital and to productivity without generating any immediate increases of home demand.

Difficulties of construction and subsequent interpretation of domestic or national aggregates have held back the development of official series of national revenue statistics. They have also led many writers to oppose the production of the aggregates as such. The French system is so organized that the extraction of the Gross Domestic Product, implicit in the *tableau économique*, is an esoteric exercise, the key to which is not easily available. Dudley Seers has gone so far as to argue that underdeveloped countries should abandon the construction of aggregates and concentrate on key sectors, the statistics for which are reliable and readily available. 'Aggregate statistics could be derived from these sectoral accounts, if one so desired, but they would be of little interest', he says.<sup>1</sup> His arguments against the derivation of aggregates rest both on their inaccuracy and upon fluctuations in their value with changes in terms of trade. He is also clearly fearful of a misuse of *per capita* figures. Yet the abandonment of the aggregates is not in my view a solution. No matter how detailed and how accurate the figures for the few key industries of the economy, it is difficult to interpret their significance without the context supplied by a set of national accounts, although one must agree with Mr. Seers that manipulation of the conventional aggregates is hardly likely to be fruitful.

It is necessary to derive the conventional aggregates at least in order to provide a framework giving orders of magnitude to the main sectors of the economy in relation to the whole. It is more useful still to go farther and to construct a minimum set of social accounts, of which the Production Account, however

<sup>1</sup> *Oxford Economic Papers*, February 1959, p. 26.

rough, provides the foundation. Even granting the paucity of statistics available in Africa, the following four accounts have been shown to be capable of construction:

1. Production Account, giving overall resources and uses and giving the sector accounts in detail for these sectors which are important in short period analysis or which can be well documented,<sup>1</sup> or both.
2. Current Account for General Government (or as a first stage for Central Government only).
3. Consolidated Capital Account.
4. Rest of the World Account.

Naturally the attempt to construct these other accounts presents additional difficulties, but their importance to African governments, entering upon a period of planned development with increasing pressure upon resources, is recognized by the number of such countries which already attempt to construct them. By contrast a restriction of statistical exercises to the refining of the G.N.P. aggregate not only leads to rapidly diminishing returns but also serves little purpose in policy-making.

Without these different accounts the figures available, no matter how accurate, are difficult to evaluate. Dudley Seers has attempted to show how much analysis of short-period changes in a simple economy can be done with the help of a few basic statistical series, but the series he has chosen come pretty near to the minimum set of accounts above. Thus for Ghana he gives us the following data (Table II).

With the help of these few series he is able to explain to us several important aspects of Ghana's recent economic history. But his method of presentation of these few series obscures the accounting relationships which he is implicitly using. I should like to bring this out by a rearrangement of his data.

Let us first rearrange items (1-7) and (9-11) of his Table below, to give a simplified Table of Resources and Uses for the year 1955 (Table III).

<sup>1</sup> In Africa some leading components of domestic product are well documented on the production side, e.g. minerals and some export crops, because they are handled by a few large enterprises, such as the Marketing Boards. It repays effort to refine the estimates in these sectors and to construct, for example, detailed accounts for them, as well as a constant price series for their leading components. There are other sectors, however, in which improvement of the estimates must wait for fresh population or production census data, and in which year-by-year variations even in average earnings are impossible to measure. Decennial censuses filled out by sampling enquiries would suffice here.

TABLE II  
*A Marketing Board Monoculture: Ghana, 1952-5*  
 (£ million)

	1952	1953	1954	1955
Cocoa statistics:				
1. Exports of cocoa (f.o.b.)	53	56	85	65
2. Cocoa Marketing Board surplus <sup>a</sup>	4	6	9	4
3. Government cocoa export duties	16	16	43	29
4. Incomes of cocoa farmers and brokers	34	31	30	34
Other statistics:				
5. Other exports (f.o.b.)	32	32	29	30
6. Merchandise imports (c.i.f.)	61	69	66	82
7. Company profits	15	16	15	15
8. Other Central Government revenue	24	26	27	28
9. Central Government current expenditure	23	24	28	32
10. Fixed capital formation	26	29	32	35
11. Personal consumption	167	170	167	182
12. Net balance of payments on current account <sup>b</sup>	8	3	34	4
13. Sterling balances (end-year):				
Total	148	161	201	215
Central Government	35	39	76	84

Source: *Economic Survey, 1955* (Ministry of Finance, Accra).

a. Includes small amounts from other public boards.

b. Including Currency Board reserves.

TABLE III  
*Ghana 1955: Production Account*  
 (£ million)

<i>Resources</i>		<i>Uses</i>	
Domestic product		Exports	
(a) <i>Cocoa</i>		Cocoa (f.o.b.)	65
(i) Marketing Board surplus	4	Other (f.o.b.)	30
(ii) Export duties	29	<i>Gross Capital Formation</i>	
(iii) Incomes of cocoa farmers, brokers (and labourers)	34	(i) Fixed capital	35
(b) Other cash production for export and for the home market		(ii) Stocks	n.a.
(i) Company profits	15	<i>Central Government - current expenditure<sup>a</sup></i>	(32)
(ii) Income from employment	}	<i>Local Government - current expenditure</i>	n.a.
(iii) Income from self-employment			
(c) Subsistence production <sup>b</sup> (=x)	}	<i>Personal Consumption</i>	182
Merchandise imports (c.i.f.)		82	(i) Subsistence (=x)
Services (net)	(9)	(ii) Cash expenditure on consumption (=182-x)	
Domestic input	ca. 344	Domestic output	ca. 344

a. This item includes Central Government transfer payments and excludes Local Government current expenditure on goods and services.

b. If there is subsistence investment of, say, £y million, subsistence production becomes £(x+y) million.

c. together approximately equal to *personal consumption*.



The Uses side of this table is very nearly complete, the only items missing being (1) *value of changes in stocks* (2) *current expenditure by Other Governments*<sup>1</sup> neither of which items are large in Ghana.

The Resources side of the Production Account lacks four items, of which *subsistence production* (= *subsistence consumption*) is the largest. Two other items missing are *income from employment* and from *self-employment*. If household saving known to be very small in such communities is taken as zero the unaccounted difference between Resources and Uses reduces to £10 million a figure well within the margin of error. Notice that any error in estimates of subsistence falls equally on each side of this account.

From the data Seers has supplied it is clear that two further accounts are available: Central Government revenue and expenditure analysed upon an economic basis, and the balance of payments. From these the Central Government surplus and services have been calculated by difference.

TABLE IV  
Ghana 1955  
Central Government £(million)

Current expenditure	32	Current revenue (i) From cocoa	29
Surplus	(25)	(ii) Other	28
	<hr/>		<hr/>
	57		57

TABLE V  
Ghana 1955  
Rest of the World Account<sup>a</sup>  
(£ million)

Imports Merchandise (c.i.f.)	82	Exports (f.o.b.)	
		(i) Cocoa	65
Services and net transfers to non-domestic residents	(9)	(ii) Other	30
	<hr/>	Net borrowing from abroad	-4
	91		<hr/>
			91

a. This treatment of the Rest of the World Account is implicitly domestic. It may therefore be inconsistent if the figure for the net balance of current payments is, in fact, based upon a national concept.

Finally, since Seers has given us an estimate of company profits and since he has an analysis of Central Government

<sup>1</sup> It is not clear from Seers' article whether his item *Central Government current expenditure* excludes transfer payments but such outlay is in any case very small in Ghana.

accounts he could presumably have soon completed an Appropriation Account for Corporations.

TABLE VI

*Ghana 1955**Appropriation Account: Corporate Enterprises (£ million)*

Dividends distributed	} <sup>a</sup>	Gross profits	15
Direct taxes on corporations			
Gross savings of corporations		n.a.	

a. Not given by Seers but readily available from published sources.

While direct taxes on corporations are available in his Central Government Account, dividends distributed could presumably have been obtained from the Balance of Payments Account since there are virtually no recipients of dividends in Ghana itself. Thus he should have been in a position to estimate gross savings of corporations for inclusion in the Capital Account as below.

TABLE VII

*Ghana 1955**Capital Account (£ million)*

Gross capital formation		Saving of General Government	
(i) Fixed capital	35	(i) Central	25
(ii) Stocks	n.a.	(ii) Other	n.a.
Net lending to rest of the world	4	Savings of corporations	
		Saving of households, etc.	n.a.

Three points only need to be made in connection with this re-representation of the data for Ghana. The first is that, while short period analysis can go quite far without appeal to the context of social accounts, such analysis actually implies the accounting framework which it is therefore worth setting out.

The second is that even where the accounts are incomplete there is much to be learnt from the orders of magnitude of the different components,<sup>1</sup> especially if the estimates of items are available for a series of years.

<sup>1</sup> Thus in 1955 it is clear that the net product of the cocoa industry contributed about one-fifth of Ghana's gross domestic product, and two-thirds of her receipts from abroad. Again corporate profits, constituted a relatively small fraction of G.D.P., although they would bulk large in the balance of payments if wholly paid abroad. The contribution of receipts from cocoa duty to Central Government revenue in 1955 was 50 per cent, whereas in 1954 it had been 60 per cent, and before that only 40 per cent. By contrast with the fluctuations in Central Government receipts from cocoa duty the Board's receipts were small, even in 1954 (see Table II, above, p. 59). Receipts by other factors of production in cocoa were, of course, stable because of producer price policy. The contribution of Central Government saving to capital formation varied with the cocoa price, but throughout the period it has financed the great bulk of it.

Thirdly, the unimportance of the precise valuation of the subsistence component in Africa's accounts must be recognized. It is always self-balancing, in whichever account it appears. Further it is a component of steadily diminishing importance. Even with the limited economic development so far achieved the percentage of 'subsistence income' in the aggregate is fairly small in most reporting countries.

TABLE VIII  
*Subsistence Output as a Percentage of Gross Domestic Product*

	Tanganyika	Uganda	Kenya	Congo	Federation <sup>a</sup>	S. Africa
Subsistence % G.D.P.	39	25	25	22	10	n.a.

a. Subsistence valued at farm prices. If at retail prices, the percentage becomes 18.

With the growth of the monetary sector this fraction declines. With so much of the focus of activity on economic planning designed to increase the degree of specializations, it seems strange that some countries in Africa should be planning to devote so many of their scarce statistical resources to the more accurate measurement of this diminishing component.

The final point is the relatively small number of further items which need to be directly estimated to complete a minimum set of social accounts once the components of expenditure on G.N.P. have been tackled. Given the series for which 'hard' figures are readily available, together with the completed expenditure aggregate, one is already a long way to completing a minimum set of accounts as we have seen above for Ghana. For all the series picked out by Seers (Table II above) are capable of being estimated reasonably accurately, except personal consumption which is needed chiefly for the completion of the expenditure aggregate and not in its own right.

## II. A MINIMUM SET OF ACCOUNTS FOR AFRICA

The completion of each account provides ingredients for others. The number of separate accounts shown can naturally in principle be increased, but African countries lack adequate statistical resources for much elaboration.<sup>1</sup> As one statistician

<sup>1</sup> Estimates of household incomes and consumption expenditure are too unreliable to permit of direct estimates of household savings. The best estimate of household savings is that derived as a residual in the Combined Capital Account, since the saving of General Government and of corporations can be derived directly.

of wide experience in Africa has said: 'in Africa today statistical resources are strained to their limit, not only as a result of limited financial budgets but possibly for an even more important reason, inability to obtain experienced statisticians in sufficient numbers to permit the allocation of one or two to national accounting work without seriously interfering with the provision of a basic statistical service. This shortage of statisticians calls for a ruthless excision of unnecessary detail from the minimum accounts'.<sup>1</sup>

It may seem somewhat surprising that this same statistician includes a Household Appropriation Account in the minimum set recommended for African countries. We have seen<sup>2</sup> that in Ghana, for example, neither personal consumption on the one hand nor household incomes other than from the key industry, cocoa, and from wage-paid employment, are important factors in short-period analysis or in longer period planning.

One reason for this in Ghana is undoubtedly the overwhelming importance of the cocoa industry and the way its marketing is organized. But African countries can take comfort from the fact that so many of them have both an economic structure which is similar to Ghana's and a Marketing Board type of export organization. Thus, each Region of Nigeria corresponds to Ghana in both structure and institutions, as does Uganda, the Ivory Coast, the Cameroons, Senegal, Togo-land, Dahomey and Gambia.

Other countries in Africa, such as Kenya, the Federation and the Congo are dominated more by large-scale enterprises, whether in agriculture, mining or manufacturing. In such countries important variables are wage-paid employment and company profits. Thus these economies are closer in structure to industrial societies and should be even more susceptible therefore to the usual aggregative analysis, providing too much energy is not put into refinement and further refinement of the Income Appropriation Account for Households.

Both in the Federation and the Congo this aspect of the national accounts seems, in fact, to have been recognized at an early stage. Both countries have turned their statistical energies to the elaboration of virtually complete sets of social accounts,

<sup>1</sup> See G. Billington, p. 28 above.

<sup>2</sup> See footnote p. 61 above.

despite the slender empirical foundation<sup>1</sup> of their estimates for rural sector income and outlay. Neither of these countries has devoted scarce statistical resources to costly field surveys of African household budgets. Yet the accounts published in each country make possible short-period analysis of some considerable refinement. As recent studies<sup>2</sup> have shown, the Household Income and Expenditure Account is of little interest in this context.

### III. SHORT PERIOD ANALYSIS AND FORECASTING

It is in the context of national accounts data needed for short-period analysis and forecasting as a basis for policy decisions that the unimportance of subsistence incomes is most obvious. There is no country in Africa in which year-to-year changes in self-produced foodstuffs and other items of auto-consumption are likely to be sudden or serious, except in circumstances of some national calamity. This is fortunate, because difficulties of measurement mean that the error of estimate much exceeds the probable level of such changes. Thus in the short period changes in subsistence and other rural-sector income can be taken as zero.<sup>3</sup> Further, in any case, subsistence outlay is always self-financing.

In the short run the chief variable and income-generating component in the tropical economies of Africa is the value of exports. For each major export a separate sector account is required. In Ghana, a monoculture, it is the sector account for the cocoa trade which is needed, and it is this which the Seers figures provide in items 1-4 of Table II above.<sup>4</sup> In Nigeria, with its three export crops, three-crop sector accounts would be valuable with other industrial sector accounts for mining as a support. In the Federation and the Congo it would be useful to have the copper industry similarly analysed, although the

<sup>1</sup> Neither country has yet had a complete enumeration of African population. Neither country has much information on household budgets for Africans outside towns. Neither country has had an Agricultural Census, although work of this kind is now going forward in the Federation because of the Land Husbandry Act of 1956.

<sup>2</sup> See Hazlewood and Henderson 'Nyasaland. The Economics of Federation', *Oxford Bulletin*, Vol. 22, No. 1, Feb., 1960. Also U.N.E.C.A., *Economic Bulletin for Africa*, Vol. 1, No. 1, Part B, Chapter III, Economic Developments in the Republic of the Congo 1957-60.

<sup>3</sup> This indeed has been assumed in the two studies quoted above. See especially *Economic Bulletin for Africa*, Table B.III 9, p. 28.

<sup>4</sup> Had these figures been set up as an account proper, the discrepancy between receipts and payments (£2 m.) would necessarily have been made clearer.

small number of firms operating might make publication difficult, without giving away information about individual concerns. In these latter two countries the amount of secondary industry would make it useful to have detailed accounts for the manufacturing sector or even input-output tables, although the extent of interdependence, zero elsewhere in tropical Africa, is still small.

The next most important generator of income is Government expenditure especially at the centre. Government current expenditure is a large fraction of total national expenditure;<sup>1</sup> with development planning, Government capital expenditure is larger still, especially since independence and public capital formation is a large fraction of total capital formation. Thus these items between them compose a large part of the national expenditure total, and need to be known if the balance of the economy is to be discussed.

Whereas in the past African economies have had little need of national accounting techniques, because they have operated well below capacity levels in all sections, this picture is now changing. The pressure of development plans shows in both the Balance of Payments and the Capital Accounts of their economies. With the rising tide of capital expenditure in tropical Africa the balance of these economies is now becoming a matter of concern, and policy-making is based, even if only implicitly, upon the use of such calculations.<sup>2</sup> While policy decisions can, of course, be taken (and have to be taken) without complete knowledge,<sup>3</sup> a minimum set of accounts is also needed to review what has actually happened when the period is over. Thus the completion of a minimum set of accounts merits a higher immediate priority than the task of attempting to improve upon the softer components of the Production Account alone.

<sup>1</sup> General outlay by Central Government was 10 per cent in Ghana in 1955: public capital outlay was 35 per cent.

<sup>2</sup> Thus in launching her Second Five Year Plan, with its projected increase of capital outlay to be financed despite pessimistic views of the terms of trade for cocoa, Ghana has had to take a view of the permissible level of consumer imports. This has led her drastically to reduce the producer price for cocoa, from £134 per ton to £112.

<sup>3</sup> e.g. without knowledge of the terms of trade.