65476

UNITED NATIONS
ECONOMIC
AND
SOCIAL COUNCIL

Distr.
SPECIAL

E/CN.14/409
23 April 1968

Original: ENGLISH

ECONOMIC COMMISSION
FOR AFRICA

A SURVEY OF ECONOMIC CONDITIONS IN AFRICA, 1967

INTRODUCTION AND SUMMARY

(Reproduced separately
for the use of the
Economic and Social Council
at its forty-fifth session)

M68-423(A)
(23 April 1968)

INTRODUCTION

The extension of and improvements in national income accounting in Africa in recent years have resulted in more reliable estimates of the gross domestic product and related national accounting aggregates than have been available hitherto; and regional and sub-regional figures on the magnitude, origin and disposal of the GDP provide the basis for much of the analysis contained in the present SURVEY. To begin at the highest level of aggregation, it may be noted that, at 1960 market prices, GDP for Africa as a whole increased from US $34.5 billion in 1960 to US $43.8 billion in 1966, and thus grew at an average annual compound rate of 3.9 per cent. When account is taken of population levels and growth, it may be estimated that real *per capita* GDP rose - at an annual rate of 1.5 per cent - from US $125 in 1960 to US $137 in 1966.

In 1960 and 1966, the Republic of South Africa[1/] accounted for 6.5 per cent of the total African population. Between the two years, however, the South African share of total GDP increased from 21.3 to 23.7 per cent. It is, therefore, evident that the exclusion of South Africa would significantly affect the levels and rates of growth of total and *per capita* GDP for the rest of Africa. In fact, the real GDP of Developing Africa increased, by 3.4 per cent per annum, from US $27.4 billion in 1960 to US $33.4 billion in 1966; and with a rise in absolute terms from US $106 in 1960 to US $112 in 1966, the corresponding *per capita* increase was 1.0 per cent per annum. This *per capita* rate of growth was certainly among the smallest rates recorded by the major regions of the world over the period in question; and in absolute figures the average annual addition to GDP per head in Developing Africa between 1960 and 1966 was US $1. In a period which covers most of the Development Decade, the relatively slow growth in average African incomes implied by all this is particularly disappointing. The more so since the average income levels suggested by a *per capita* GDP of US $106 are also among the lowest in the world.

1/ Since it is statistically difficult to unscramble the GDP figures, South Africa here includes Lesotho, Botswana and Swaziland.

EXPLANATORY NOTES

The following symbols have been used in this Survey:

... = not available,

– = nil or negligible.

The use of an oblique stroke - e.g. 1960/1961 - indicates a crop year. The use of a hyphen - e.g. 1960-1966 - normally refers to an annual series for all of the calendar years between, and including, the base and terminal years indicated. A hyphen is similarly used to indicate periods over which average annual growth rates have been calculated.

A billion is one thousand million.

The composition of the five African sub-regions is as follows:

<u>North Africa</u>: Algeria, Libya, Morocco, Tunisia, the UAR, Sudan, Spanish North Africa and Ifni.

<u>East Africa</u>: Malawi, Zambia, Rhodesia, Madagascar, Mauritius, Tanzania, Uganda, Kenya, Somalia, Ethiopia, Comoro Islands, Seychelles, Réunion and French Somaliland.

<u>West Africa</u>: Mauritania, Senegal, Mali, Ivory Coast, Upper Volta, Dahomey, Niger, Gambia, Guinea, Sierra Leone, Liberia, Ghana, Togo, Nigeria, Cape Verde, Portuguese Guinea and Spanish Sahara.

<u>Central Africa</u>: Cameroon, Chad, Central African Republic, Gabon, Congo (Brazzaville), Congo (Kinshasa), Rwanda, Burundi, Sao Tomé and Principe and Spanish Equatorial Africa.

<u>Other Africa</u>: Angola, Mozambique, the Republic of South Africa, South West Africa, Lesotho, Botswana and Swaziland.

Nor is it only in relation to the present income levels of the developed countries that the African problem seems immense. Indeed, if the comparison is made with per capita income levels in the now developed countries during their pre-industrialization phase, the results are in some ways more rather than less challenging. The pre-industrialization period may be identified in terms of the last decade in which as high a proportion as 60 per cent of the labour force was employed in agriculture; and in their several appropriate decades, the average incomes of the now developed countries were probably at least US $300 in 1960 prices. If the target set for African incomes were lowered to this figure and if the African rate of growth were to continue at 1 per cent per annum, it would still take 110 years to reach the target figure. In other words, if the 'take-off' into sustained economic growth could be predicated on the attainment of a certain level of income per head, then Developing Africa would not be ready for its 'take off' for more than a century.2/

There is, of course, a strong speculative element in all of these thoughts; and in some ways they are at least slightly absurd. It is not easy to imagine a world in which in some countries average incomes, at say 1960 prices, range from US $22,500 to US $90,000, while in others the income range runs from a mere US $1500 to a mere US $3000. Nor is it really permissible to contemplate the future over the next one to three centuries. Particularly not, perhaps, when the contemplation is undertaken within the framework of an annual economic survey! The thoughts and the calculations on which they are based are, however, far from useless. At very least they serve to make it clear that, if present trends were to continue, Developing Africa could not hope to close the economic gap which now divides it from the richer countries of the world in any period which

2/ The figure of US $300 is a rough estimate based on some evidence and argument presented by Simon Kuznets. For a fuller discussion of the question see his Economic Growth and Structure, New York, 1965, Chapter 5.

it is reasonable to consider. It could not even hope to narrow the gap. At most, it could hope to adjust to a situation in which the gap progressively widened. The thoughts and conclusions thus also serve to focus attention on the very general requirements of a strategy for African development.

It can be argued that changes in per capita income provide the best single measure of economic growth. It is obvious that absolute increments to income per head in any period depend upon the initial level of income and its subsequent rate of growth; and it is evident that Developing Africa has suffered in recent years from the least desirable combination of these two elements - low levels and low growth rates. As a consequence, the poverty and harsh conditions which characterised much of the continent at the beginning of the decade were but slightly alleviated in the succeeding years; and higher rates of growth of initially larger incomes elsewhere have simply served to sharpen the contrast between African and other conditions. It is thus clear that the main immediate requirement in Africa is for rapid income growth sustained over two or three decades. This is so both in terms of improving the conditions of life of the present generation of Afrcan peoples and in terms of ensuring to future, but not too distant, generations standards of living which at least approach those now enjoyed in the more affluent parts of the world.

In one sense, the advantages of immediate and marked increases in the growth rate of per capita income are obvious and may be illustrated by pointing out that, in contrast to the estimate of 110 years made earlier, the time required to raise African per capita incomes to US $300 at 1960 prices would be less than four decades with a sustained annual increase of 3 per cent, and less than three decades with an annual increase of 4 per cent. In another sense, the advantage of the immediate, rapid increases has to be explicitly argued. This is

basically because over any given period income levels can reach the same final figure either by growing slowly and then quickly or by growing quickly and then slowly. Thus, for example, 30 years growth at an annual rate of 3 per cent followed by a further 30 years growth at 1 per cent will raise any given initial income by the same amount over the 60 year period as would a switching in the order of the growth rates. It might therefore be thought that, in terms of policy, it is a matter of indifference whether high growth now is followed by slow growth later or vice versa. In countries at low levels of development, however, two grounds may be advanced for prefering high growth now, if it can be obtained. The first is quite simply that it would do more to alleviate present poverty. The second is that it would also *ipso facto* improve the prospects for further growth. An increase in African income per head by 3 per cent per annum over the next 30 years would - by dint of larger markets, increased possibilities for specialization and higher savings rates - make a rate of growth of 2 per cent per annum in the subsequent 30 years more likely than the 4 per cent which would then be required - to maintain the equality of income levels after 60 years - in face of an increase of 1 per cent per annum in the first period.

Since the formulation of future policy should begin from an understanding of present circumstances, it is appropriate at this point to return to a consideration in more detail of the slow growth in African incomes recorded between 1960 and 1966. In this connexion it is important to remember that income *per capita* for Developing Africa is an aggregate ratio; and that changes in this ratio are a net outcome of the various forces which operate on it. In considering the determinants of *per capita* income in Developing Africa, it is useful to recall that these include income and population changes in the countries which comprise Developing Africa as well as changes in the different sectors of economic activity. It is, therefore, convenient to disaggregate first in terms of countries and then in terms of the forms of economic activity which contribute to the GDP.

To provide some measure of the country relevance of the comments so far made on the level of and changes in the aggregate GDP *per capita*, information on the distribution of countries by product per head at 1960 prices and by rates of growth of this product between 1960 and 1966 is given in Tables 1 and 2. From Table 1 it may be seen that more than 62 per cent of the population of Developing Africa in 1966 was located in 21 countries in each of which GDP per head was less than US $100. Product per head in 5 of these countries was less than US $50, and it was between US $50 and US $75 in a further 9 countries. An additional 32 per cent of the population resided in 13 countries in which product per head ranged from US $100 to US $199; and 6 more countries contained another 5 per cent of the population and provided levels of *per capita* product of between US $200 and US $299. In only two countries, Gabon (US $350) and Libya (US $730) was product per head clearly above US $300; and the combined population of these two countries accounted for less than 1 per cent of the total of Developing Africa. On the basis of this evidence, the majority of African countries and most of the African people have seriously inadequate income levels on any standards; and the earlier comments on income levels have quite general point.

In broad terms, the information contained in Table 2 provides some explanation of the slow aggregate growth rate of *per capita* GDP between 1960 and 1966; and in brief the aggregate result may be attributed to the fact that the number and beginning weight of countries with very slow growth rates were much larger than the corresponding number and weight of countries in which progress was greater. In more detail, product *per capita* declined between 1960 and 1966 in 16 countries which collectively accounted for some 30 per cent of total GDP in 1960; and, *ipso facto*, the standards of living of some 26 per cent of Developing Africa's 1966 population may be said to have gone down as between the base and terminal years. A further 20 per cent of the 1966 population resided in 8 countries which had provided 19 per cent of the 1960 GDP; and in these countries, changes in product per head were positive over

TABLE 1

Distribution of countries and population in Developing Africa[a] according to GDP per capita (at 1960 market prices), 1966

GDP per capita US $	No. of countries	Proportion of total population of Developing Africa (percentage)
Less than $100	21	62.1
$100 - $199	13	32.0
$200 - $299	6	5.1
$300 - $399	1	0.2
More than $400	1	0.6

Source: ECA Secretariat.

a/ Excludes Lesotho, Botswana, Swaziland and the small Spanish and Portuguese territories with the exception of Portuguese Guinea.

the period, but not sufficiently so as to bring the average annual rates of growth up to the level of 1 per cent. In 11 countries - which were responsible for 42 and 48 per cent of 1960 GDP and 1966 population respectively - product per head rose between 1960 and 1966 by from 1.1 to 3 per cent per annum; and in the remaining 7 countries covered by the table, just over 6 per cent of the total 1966 population enjoyed rates of growth in per capita product in excess of 3 per cent per annum, and consequently improved on their 9 per cent share of the total 1960 GDP. The main conclusion to be drawn from Table 2 concerns the need to improve the performance of the 24 countries which registered rates of growth of less than 1 per cent between 1960 and 1966. This need should be stressed not only because of the relative importance of these countries in total population and product, but also because the already high rates of growth registered in most of the other countries of the region make it inherently improbable that average incomes in Developing Africa as a whole could be raised significantly in any other way.[3]

A necessary question in assessing the country experience between 1960 and 1966 concerns the possibility that the disappointing results of the period were due, at least in part, to special and not necessarily recurring circumstances; and in fact there is some evidence to suggest

---

3/ As things are, it is both more meaningful and more desirable if an increase in average African income results from fairly rapid growth in many countries rather than from spectacular growth in a few countries. As economic co-operation in the region proceeds, the general impact of the latter phenomenon would be increased. In present circumstances, however, a narrowly-based increase in the African average has meaning only as a measure of potential.

TABLE 2

Distribution of countries in Developing Africa[a/] according to rates of growth of real GDP between 1960 and 1966

Rate of growth	No. of countries	Share of relevant countries in 1966 Population of Developing Africa	Share of relevant countries in 1960 GDP of Developing Africa
		percentage	percentage
Less than 0	16	25.8	29.9
0 - 1 per cent	8	19.8	18.6
1.1 - 2 per cent	6	28.5	20.1
2.1 - 3 per cent	5	19.7	21.8
3.1 - 4 per cent	3	4.7	7.0
4.1 - 5 per cent	3	0.8	1.6
Over 5 per cent	1	0.6	0.6

Source: ECA Secretariat.

a/ Same country coverage as in Table 1.

that special factors were at work. Thus, in 1960 Algeria and Congo (Kinshasa) between them accounted for more than 14 per cent of the total GDP of Developing Africa; and in 1966 the same countries contained almost 10 per cent of the total population. Between 1960 and 1966, however, product per capita in the two countries taken together fell by approximately 5 per cent per annum as a consequence of political difficulties and their aftermath. If the combined Algerian and Congolese per capita product had remained unchanged between 1960 and 1966, then the growth rate in per capita GDP for Developing Africa as a whole would have been 13 per cent higher than it was in fact.

It has also to be remembered that most countries in Developing Africa gained their independence in 1960 or subsequently; and that the assumption of power was frequently as abrupt as the need to develop was strong. In many countries, essential first steps in the effort to achieve economic growth were the strengthening of the government machinery at appropriate points and the extension and improvement of economic and social infrastructure. Although essential, these activities are not in the short run highly productive; and any marked increase in the proportion of available resources devoted to them could, in combination with significant increases in population, reduce the rate of growth of per capita product below what it might be expected to reach subsequently. Conclusive evidence on this point is not available. There are, however, some straws in the wind; and it may be noted, for example, that although the proportion of GDP devoted to capital formation in Developing Africa remained roughly constant about 15 per cent as between 1960 and 1966, investment on general government account increased more quickly than GDP and total investment. It may also be cautiously noted that the share of Developing Africa's GDP originating in transport and public administration increased from 5.7 and 8.3 per cent respectively in 1960 to 6.1 and 9.4 per cent respectively in 1966.4/

4/ These figures would support the point being made if they reflected an increase in the allocation of resources to the activities in question and if the short-run productivity of the resources were less than they would be if they were otherwise employed.

In countries in which marked technical progress and a marked facility to accumulate capital are established characteristics, fairly rapid population increase - by, for example, increasing the extent of the market and the scope for specialization; by making the population-resources ratio more optimal than hitherto; and by increasing the absolute number of persons capable of adding to and fruitfully applying knowledge - can result in increases in per capita product. On the other hand, in countries at a low level of development and in which technical progress is limited and sporadic, capital is notably scarce and educational institutions, broadly construed, are weak, rapid population increases may be a constraint on the growth of per capita GDP. In any country, the economic effects of population increase will partly depend on the sources of increases; and the greater the weight of natural increase as compared to migration, and within the natural increase the greater the weight of birth as compared to death rates, the smaller in the short run will the contribution to economic growth of any given population increase be. It is, however, obvious that the retarding effect on product per head of high population increase of low economic weight will be more serious in a country which cannot than in a country which can significantly raise the capital-labour ratio even in the short run. In other words, population increase based mainly on fertility is more likely to result in low, possibly negative rates of growth in income in developing than in developed countries.

Lack of data precludes any extensive investigation of the relationship between population and income change in Developing Africa. It is known, however, that African rates of population increase and African birth and death rates are among the highest in the world; and that most of the population growth is due to natural increase.[5] It is, therefore, possible that some part of the explanation for the slow

5/ For a discussion of some African demographic indicators, see A Survey of Economic Conditions in Africa, 1960-1964 (E/CN.14/397), Chapter B.

growth of product per head in Developing Africa between 1960 and 1966 was due to the rate of population increase; and in so far as this was a factor, it is one which is likely to continue to operate for some time to come. It is consequently of interest to examine the evidence readily available for the recent period on the role of population change in the determination of the rate of increase of product per head. In doing so, it is convenient to begin with a quick glance at the rates of population growth recorded between 1960 and 1966 by Developing African countries in a comparative context which reflects the previous discussion.

Africa's population grew at an annual rate of 2.3 per cent between 1960 and 1965; and, in terms of the world's major regions, this rate was surpassed only in South Asia and Latin America where annual increases of 2.5 and 2.8 per cent respectively were registered. These figures reflect, of course, the well-known fact that present rates of population growth are generally higher in developing than in developed countries. The problem for present purposes is to find some benchmark by which to judge African rates of growth in a presumptive fashion with respect to their likely impact on economic development. One - admittedly impressionistic and somewhat arbitrary - way in which this problem can be solved, is by comparing the African growth rates with that of about 1.9 per cent per annum recorded in Canada between 1960 and 1966. For a developed country, this was a very high growth rate. Against this, however, it should be remembered that immigration into Canada during the period was also relatively high; and that - as witnessed by vigorous official attempts to attract immigrants - Canada is economically underpopulated. Thus, gives the developed economic structure and institutions of the country, population increase was probably a favourable element in economic change in Canada between 1960 and 1966; and some support for the view that, at very least, it was certainly not a negative influence, may be obtained from the fact that real per capita product increased over the period by 3.7

per cent per annum. This figure does establish that Canada was able comfortably to absorb its population increase; and a quick comparison of Canadian and other developed country experience suggests that the Canadian increase was probably of economic benefit[6].

It may be suggested that, given the differences in structure and institutions earlier discussed, the highest rate of population growth comfortably absorbed under favourable conditions by a developed country would, prima facie, provide an exacting maximum limit to the rate of population growth which developing countries might generally be considered to experience without detriment to their economic efforts; and in the circumstances a rate of 1.9 per cent may be adopted as a useful, initial benchmark for judging annual rates of population growth in African countries between 1960 and 1966.

It is permissible, because of its very large growth in income over the period, to exclude Libya from consideration. When this is done, the rates of population increase for the other 41 countries and territories covered by Tables 1 and 2 are seen to range from 0.3 to 4.2 per cent. In 31 of the countries, however, the relevant rates were 1.9 per cent or more, and thus, on the basis of the earlier a priori reasoning, there is some presumption that population growth in these countries had a dampening effect on economic development. In more empirical terms, it may be observed that population grew by more than 3 per cent per annum between 1960 and 1966 in 6 Developing African countries: in 3 of these countries product per head declined; in another it increased by less than 1 per cent; and in a further 2 product per head increased by 1.1 and 2.8 per cent respectively. Population growth in 25 countries fell between 1.9 and 3.0 per cent per annum; and of these countries, 11 registered negative rates of

6/ Thus, compared to the US, the UK, Western Germany, the Netherlands, Sweden and France, Canada had the highest population increase and was only – and narrowly – surpassed by Sweden and France in terms of relative increase in product per head.

growth in per capita GDP, 7 had corresponding increase of less than 1 per cent, and 7 experienced relevant average annual increases of from 1.6 to 3.2 per cent. By contrast, 2 of the 10 countries in which population increase over the period was at an annual rate of less than 1.9 per cent, recorded a decline in per capita product; and in the remaining 8 countries the corresponding product increases ranged from 1.4 to 4.7 per cent, with 5 countries achieving rates greater than 3 per cent and 4 countries rates of 4 per cent or higher. The figures deployed in this paragraph are highly suggestive and tend to confirm the view that there is some adverse relationship between population growth beyond a certain level and economic growth per capita in Developing Africa. The results emphasize the need for further research on and policy consideration of the role of population change in African economic development.7/

As measured by the weight of imported goods and services in total available resources and the share of exported goods and services in final demand, Developing Africa and most of its constituent countries have strikingly open economies and are therefore highly susceptible to changes in trade and payments. In the long run, the most appropriate model of the relationships between trade and growth in Africa is still that which postulates that any given growth of GDP will require a more than proportionate increase in imports and thus a corresponding rise in export earnings and/or capital inflows;8/ and even over a period as short as six years, it is important to consider whether income growth was facilitated or constrained by changes in the foreign sector.

7/ On the basis of the evidence adduced a more formal examination of the effect of population growth on growth in product per capita may be cast in the form of the hypothesis that the proportion of countries with low population growth (less than 1.9 per cent) achieving increases of per capita product of more than 1 per cent is the same as the corresponding proportion of countries with high population growth (more than 1.9 per cent). At the 5 per cent significance level it would be necessary to reject this hypothesis. In other words there are some statistical grounds for thinking that income per head is likely to be more easily raised in countries with low population growth.

8/ The relevance of the model to different countries will vary with, inter alia, levels of development. In particular, at very low levels of development lack of skills and absorptive capacity are likely to be more serious constraints on growth than lack of foreign exchange. Ultimately sustained growth, however, will only be possible on the basis of structural transformation; and this kind of growth is certainly subject to an exchange constraint. As it is, it is worth noting that in the period under review there was a moderate but significant correlation between GDP and import growth.

In the discussion of the trade and growth problems of the developing countries, much attention has been paid to the trend in foreign exchange earnings accruing from the export of goods. This trend for Developing Africa was relatively favourable between 1960 and 1966; and the level of export earnings rose from US $5,300 million in 1960 to US $8,390 million (at current prices) in 1966. The value of African exports thus increased at an annual average rate of 8 per cent, which was considerably higher than the corresponding rate for developing countries as a whole, but somewhat lower than the rates recorded by the centrally-planned and developed market economies respectively. In real terms, the exports of Developing Africa increased at an average rate of 7.4 per cent per annum. To some extent, the favourable development of African exports between 1960 and 1966 was due to special circumstances which are unlikely to operate with the same force in the future. The most striking example of this is the rapid growth of petroleum exports which - based almost entirely on new discovery and exploitation - accounted for 47.8 per cent of the absolute change in total export values over the period in question. The increase in coffee earnings accounted for a further 7.6 per cent of the total increase; and it is again likely that the fairly rapid growth of coffee exports which made this contribution possible would be difficult to repeat within the context of the International Coffee Agreement. Among other commodities which made a significant contribution to the total increase in export earnings were copper, iron ore, groundnuts, diamonds, phosphates, citrus fruits and tin metal.

The recorded increase [illegible] earnings between 1960 and 1966 reflected favourable developments in a large number of Developing African countries; and no fewer than 20 such countries registered rates of growth in the value of their exports of 7 per cent or more per annum over the period. It has, of course, to be remembered that export earnings are but one of the trade and payments factors which operate on the growth prospects

of African countries; and it has also to be remembered that favourable changes in one of these factors in any period may be offset by unfavourable changes in others. That some such process was at work between 1960 and 1966 is suggested by the somewhat naive but certainly not irrelevant comparison of export and import experience.9/ Thus, imports of goods into Developing Africa increased in current value from US $6,550 million in 1960 to US $8,260 million in 1966 and thereby grew at an average rate of 4 per cent per annum; and the corresponding real rate of growth was 2.8 per cent. It is true that this relatively slow rate of increase - which was lower than those recorded by developing countries as a group, centrally-planned and developed market economies - can in part be explained by the special circumstances of Algeria, where imports fell by about US $500 million. If Algeria were excluded, the import rate of growth for Developing Africa would rise to about 6 per cent at current prices and would thus be somewhat greater than the rate for developing countries as a whole, but still significantly lower than the corresponding rates for the centrally-planned and developed market economies and, of course, African exports.

In African country terms, 7 of the 20 countries which experienced export rates of growth of 7 per cent or more were apparently unable to translate this experience into correspondingly high relative increases in imports; and some further measure of the importance of rapidly growing export earnings as a necessary (but not sufficient) condition for import growth may be had from the fact that of 15 countries for which information is available and in which export growth between 1960 and 1966 was less than 7 per cent per annum, only 4 managed to increase their imports over the same period by a rate of 7 per cent or more.

9/ Naive, because it abstracts from other forces operating on the GDP growth rate and hence on import demand.

Broadly speaking, the volume of imports obtainable from any given level earnings will be the less, the higher import prices and the higher the proportion of export earnings absorbed by unfavourable balances on the invisible account; and some discussion of these elements is possible on the basis of the limited information available As far as import prices are concerned, the unit values of imports into Developing Africa rose rather slowly - by about 1 per cent per annum -- between 1960 and 1966. Even this modest increase was, however, greater than the rise in African export values; and some US $237 million from the 1966 export earnings was required to offset the higher rate of increase of import prices.

That some part of export earnings will normally be required to finance deficits on the invisible account is strongly suggested by evidence available for 14 countries in 1966. Of the 14 countries, only 4 registered a favourable balance as a result of their invisible transactions; and, apart from the special circumstance of the Egyptian ownership of the Suez Canal, in none of these countries was the balance sufficiently favourable to add as much as 3 per cent to export earnings. On the other hand, the negative balance in the remaining 10 countries absorbed from 3.3 to 44.2 per cent of export earnings; and the ratio of the negative balance to export earnings was 10 per cent or more in 9 of the countries and 20 per cent or more in 6 of the countries.

Information on changes in the current account as a whole between 1960 (or the nearest later year for which figures can be obtained) and 1966 may be had for 15 African countries. These changes incorporate changes in merchandise exports and imports; and it is therefore necessary to be doubly cautious in interpreting their significance in the present context. At very least, however, the fact that the state of the current account deteriorated in 9 of the 15 countries supports the presumption that improvements in earnings from merchandise exports were to some extent offset by increasing deficits on invisible account.

Adequate data relating to the inflow of public and private funds from abroad is still not available for any single recent year. It is, therefore, impossible to make any detailed assessment of the adequacy of capital flows into Developing Africa between 1960 and 1966 - although these were almost certainly lower than objectively required to make a satisfactory contribution to African economic growth. In the circumstances, this discussion of changes in the foreign sector may conveniently, if circumspectly, be concluded by considering what is known of changes in Africa's international liquidity over the period being discussed. On the one hand, a marked decrease in reserves provides presumptive evidence that a country was unable to obtain from exports and capital inflow sufficient foreign exchange to finance import requirements. On the other hand, an increase in exchange reserves, on the face of it, makes it difficult to maintain that the major constraint to growth lies in the foreign sector. In this context, evidence available for 21 countries in Developing Africa (including Kenya, Tanzania and Uganda grouped together) reveals that as between 1960 and 1966, reserves declined in 10 countries and increased in the remainder. In two countries, Libya and Mauritania, the increase in reserves was clearly due to an increase in the exploitation of natural resources which was so rapid that it greatly outpaced any plausible increase in imports in the short run. In other countries with increasing reserves there is some reason to believe that the growth in reserves represents transitional limits to absorptive capacity due to low levels of development. It finally should be noted that - as measured by the import coverage of total reserves - the capacity of African countries to finance development from reserve holdings declined between 1960 and 1966. If 40 per cent is taken as the minimum ratio of reserves to annual imports required to permit reserves to be used as development finance, then the number of countries in Developing Africa - from the present sample - which could afford to use their reserves for purposes of economic growth declined from 12 in 1960 to 3 in 1966.

Thus far, attention has been focussed on changes in real product per capita in Developing Africa between 1960 and 1966; and consideration has been given to transitional or more persistent factors - the problems of adjusting to recently-acquired independence, high rates of population increase and adverse developments in foreign trade and payments - which could help explain the generally slow rates of growth in product per head registered by most countries in Developing Africa over the period. Necessarily, much of this consideration has been presented in qualitative terms. It was, therefore, impossible to assign weights to the various factors considered or to determine what the rate of growth of per capita product might have been in more favourable circumstances. In these conditions, an examination of the sector components of growth in GDP between 1960 and 1966 would provide a useful supplement to the earlier analysis; and it is, therefore, convenient now to turn to such examination. In doing so, it should be recorded that considerations of time, space and data prohibit any detailed examination of individual country records. Some attempt to disaggregate is made, however, at the sub-regional level.10/

10/ For purposes of promoting economic co-operation, the ECA has grouped the countries of Developing Africa into four sub-regions, North, East, West and Central Africa. A further grouping, Other Africa, comprises the Republic of South Africa, the two large Portuguese territories, South West Africa and Lesotho, Botswana and Swaziland.

Given this, it is useful to establish that, notwithstanding differences in economic structure and income levels, the four sub-regions comprised exclusively of developing countries all recorded relatively low rates of increase in per capita product between 1960 and 1966. To this end, some pertinent figures are presented in Table 3. From this table, it may be seen that product per head was - at US $175 - highest in North Africa; and that in East, West and Central Africa the corresponding figures were about or somewhat less than 50 per cent of the North African level. The average annual rate of growth of real product per head between 1960 and 1966 was 1.1 per cent in North, East and West Africa, and in Central Africa product per head declined by 1.5 per cent each year. As a consequence of these changes, the only shift in the relative standing of the four sub-regions in terms of product per capita was the decline in the ratio of Central to North African product from 51 per cent in 1960 to 44 per cent in 1966. Not surprisingly, since they were appropriate to most African countries, the earlier remarks about the rates of growth of GDP per capita evidently apply, in the light of Table 3, to the four sub-regions; and it is thus convenient to resume the examination of factors which influenced the rate of growth of GDP and GDP per head in Developing Africa between 1960 and 1966.

It is fairly obvious that for an individual country or a group of countries, the rate of growth of GDP over a period will be proximately determined by the initial weight and rates of growth of the various sectors of economic activity contributing to the GDP.11/ It follows

11/ On any but the most mechanistic interpretation, this assumes that the sectors are independent rather than interdependent. This assumption is never wholly justified. The consequences of ignoring interdependence are, however, less serious at low than at high levels of development. It should be noted that the calculations used in the present section are based on estimates made at factor cost.

TABLE 3

Levels of per capita products in the four sub-regions of Developing Africa, 1966 and rates of growth thereof 1960-1966

(in US $ at 1960 market prices and percentages)

Sub-region	1966 per capita product	Average annual rate of growth 1960-1966	Per capita product as relative of North African product	
	US $	percentage	1960 percentage	1966 percentage
North Africa	175	1.1	100.0	100.0
East Africa	85	1.1	48.7	48.6
West Africa	90	1.1	51.2	51.3
Central Africa	77	- 1.5	51.2	44.0

Source: ECA Secretariat.

that a useful first step in examining the growth of GDP is a consideration of the appropriate sector changes. In the present context the calculation of 1960 weights and subsequent growth rates (as measured by contribution to the GDP) for eight main sectors - agriculture, mining, manufacturing, construction, commerce, transport, other services and public administration - for Developing Africa as a whole and for each of the sub-regions leads to one very evident conclusion: that the low rate of growth between 1960 and 1966 of GDP and hence of GDP per capita owed much to the fact that everywhere agriculture was at once the most important single sector in 1960 and either the slowest or among the slowest-growing sectors between 1960 and 1966.

Thus, in 1960 agricultural activity contributed almost 40 per cent of the GDP of Developing Africa as a whole; and between 1960 and 1966 value-added by agriculture increased at an average annual rate of 1.3 per cent per annum. This compared with a corresponding increase in GDP of 3.2 per cent and was the only sectoral rate of growth to be less than 2 per cent. Among the sub-regions the 1960 weight of agriculture ranged from 32 per cent in North Africa to 57 per cent in West Africa, and the rates of agricultural increase were lower than those of total GDP except in Central Africa. In that sub-region, however, both GDP and agriculture grew by less than 1 per cent per annum. In North Africa, where value-added by agriculture actually declined, and West Africa, the agricultural increases were the lowest recorded among the eight sectors; and in East Africa only mining and construction - with very modest 1960 weights - recorded lower rates than agriculture. It may, therefore, be concluded that higher rates of agricultural growth would have done much to raise the levels of GDP and, therefore, GDP per capita; and a quick measure of the extent to which this is so may be provided by the observation that if agriculture in Developing Africa as a whole had increased at the same rate as total GDP then the corresponding rate of growth of GDP per head would have been 70 per cent higher than in fact it was.

As a consequence of this, the question as to why GDP per head grew so slowly in Developing Africa can to a considerable extent be converted to the question as to why agricultural output grew so slowly. A full answer to this second question would require another extensive study. For the present, however, a number of pertinent observations may be made; and a necessary starting point is the recognition of the fact that subsistence production still looms large in the output of foodstuffs and perhaps still accounts for as much as 50 per cent of total agricultural output. Moreover, a substantial part of agricultural produce destined for the market is still produced by the same traditional, non-modern methods employed in the subsistence sector. These characteristics of African agriculture produce a number of consequences among the most important of which are the fact that levels of output are still dependent on the vagaries of the weather and the fact that output per head is likely to fall as population increases and the possibilities for more extensive cultivation decline. The fickleness of weather conditions certainly had a retarding effect on agricultural output in some African countries between 1960 and 1966; and a modest increase in the absolute volume of foodstuffs - which provide some 80 per cent of total agricultural production in value terms - was not sufficient to prevent the output of foodstuffs per head from declining.

In circumstances in which agriculture is the main form of economic activity, structural rigidity a common characteristic and lack of foreign exchange of actual or potential concern, the decline in the *per capita* output of food is particularly disturbing since it has led to increased dependence on imports. This is especially true of cereals, imports of which increased significantly between 1960 and 1965 for Developing Africa and each of the four sub-regions; and for Developing Africa as a whole it is also true of meat and dairy products. As a result, higher rates of agricultural output would not only make a direct contribution to higher increases in GDP, but would also, if obtained in appropriate fashion, make an important indirect contribution by releasing foreign exchange to finance a higher volume of other essential imports.

The fact that agricultural output generally grew more slowly than GDP means, of course, that the rate of growth of the other sectors combined must have grown more rapidly. Mention has already been made of transport and public administration; and it should now be noted that in Developing Africa as a whole value-added by mining activities increased by 13.4 per cent per annum between 1960 and 1966 - and was thus the fastest-growing sector - and that the net contribution of manufacturing activity increased by 4.2 per cent per annum. The rapid increase in mining owed, of course, a great deal to petroleum and, to a lesser extent, iron ore; and the expansion of petroleum output in North Africa was reflected in a rate of growth of mineral production of 28 per cent each year, while, because of petroleum in Nigeria and iron ore in Mauritania and Liberia, the corresponding increase in West Africa was more than 9 per cent. In East and Central Africa mining activity was relatively stagnant.

Apart from Central Africa (where sub-regional changes were heavily influenced by the special circumstances of Congo, Kinshasa), the value-added by manufacturing increased by about 5 per cent or more per annum in the various sub-regions; and manufacturing was the fastest-growing sector in East Africa. By 1966, however, manufacturing industry was still contributing less than 12 per cent of total GDP. It was also, for the most part, largely concentrated on easily produced consumer goods and a limited range of intermediate goods (mostly building materials). Manufacturing industry normally represents, par excellence, the modern sector of the economy in which technical progress is most heavily embodied and output per head is highest. It is for this reason that for most countries economic development should be seen as a process of industrialization; and it is for this reason also that the Economic Commission for Africa is and has been seeking to promote sub-regional economic co-operation which would enlarge the scope of the market and thus enable more and more viable industries to be established.

It has, however, to be remembered that in Developing Africa the majority of the population is still dependent on agriculture for its income; and that significant increases in agricultural productivity and incomes would ipso facto do much to increase the scope for manufacturing industry.

It is important in the present discussion not to lose sight of the economic importance of construction, commerce and other services. Taken together these activities contributed 31 per cent of the total GDP in 1960 and between 1960 and 1966 they grew by 3.7, 2.2 and 2.1 per cent respectively. Construction is particularly important since it forms a large constituent part of capital formation; and inadequate capacity in the construction industry can be a serious constraint on development, just as a rapidly growing construction industry can be a modest leading sector with beneficial effects on the employment of local labour and the use of local materials. Nor should commerce and the other service industries be regarded as entirely passive components of economic development - expanding with but not contributing to the growth of the economy. In the early stages of the growth process, commercial activity can provide invaluable entrepreneurial training and supply much-needed capital for industrial development. When all is said and done, however, the pace of economic progress is critically dependent on agriculture and industry (including mining); and due weight must be given to this fact in any consideration of a strategy for economic development in Developing Africa.

The inference of earlier argument, it may now be recalled, is that there is a strong immediate need greatly to increase the rates of growth in the short and medium term of African per capita incomes; and that in the longer term, extensive and efficient industrialization will be required in order to sustain continuing increases in output per head. In these circumstances, the central policy question concerns the design and interrelationships of appropriate agricultural and industrial programmes; and in considering this question it has to be remembered that in 1966 the weight of agriculture in GDP was almost twice that

of industry. Given the actual weights - of 36 and 19 per cent respectively - this means that broadly speaking an increase of 1 per cent in agricultural and industrial output (as measured by value-added) would add 0.4 and 0.2 per cent respectively to the GDP. Moreover, apart from the earlier comment on the connexion between agricultural expansion and industrial markets, it should be recognized that the relatively higher rates of industrial growth between 1960 and 1966 owed something to the smallness of the initial base; and that, for this and other reasons, it might be difficult in present conditions significantly to improve upon the recent rates in the near future. By contrast the present low levels of productivity in African agriculture offer, for some time to come, prospects of high returns to investment of quite simple technical character; and the agricultural sector, therefore, possibly offers the best hope for fairly rapid growth in GDP and GDP per head over the next ten to twenty years.12/

To illustrate the questions which should be faced when the weight of agriculture in total activity is presently high and agricultural productivity is presently low, consideration may be given to an economy - not too far removed from the conditions of many actual African economies - in which agricultural production provides 50 per cent of total output and the capital-output ratio is 1:1 in agriculture and 4:1 in all other sectors of the economy combined. In such an economy, ignoring the problems of gestation periods, allocating 20 per cent of total investment to agriculture would - as is pointed out in the Agricultural

12/ It should be recognized that the necessary agricultural changes are nevertheless complex. In general they should clearly be growth orientated and should provide inducement for the peasants to develop increasing links with the market economy. In particular this requires additional credit, transport and storage facilities. In African conditions storage facilities and appropriate marketing policies could quickly reduce the alternation between food surpluses and deficits due to weather conditions.

- xxx -

Chapter of this SURVEY - cause agriculture, the other sectors and GDP all to grow at the same rate; and in any year, investing 10 per cent of the previous year's GDP would produce a common rate of 4 per cent. If, however, the distribution of investment were made more favourable to agriculture to the extent that it received 25 per cent of the total, then the respective growth rates would be 5, 3.75 and 4.4 per cent; and if the investment allocation to agriculture were to rise to 50 per cent, then the growth rates would be 10, 2.5 and 6.25 per cent respectively.

The purpose of this argument and arithmetic is not to suggest that the transformation of traditional agriculture is easy. Considerable efforts have after all been made in this direction, and the burden of the present comment is still that agricultural conditions are unsatisfactory. Nor is the purpose to urge neglect of the non-agricultural sectors of the economy. Again after all, growth must be seized where it can be found; and whatever can viably be done by way of industrial development clearly should be done. The purpose is rather to suggest that, in the absence of demonstrated alternatives, a strong present policy focus on agriculture is necessary if Africa and Africans are fully to exploit their natural resources and fully to employ their human talents and thus to achieve higher rates of income growth than were possible in the difficult conditions of the first six years of the 1960's.