

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D C 20523
BIBLIOGRAPHIC INPUT SHEET

FOR AID USE ONLY

Batch 70

1. SUBJECT CLASSIFICATION	A. PRIMARY Development and economics	DA00-0000-G214
	B. SECONDARY General--Nigeria	

2. TITLE AND SUBTITLE
The development process and comments on Professor Aboyade's paper

3. AUTHOR(S)
Aboyade, O.; Stolper, W.F.

4. DOCUMENT DATE 1971	5. NUMBER OF PAGES 53p.	6. ARC NUMBER ARC
--------------------------	----------------------------	----------------------

7. REFERENCE ORGANIZATION NAME AND ADDRESS
Mich.

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)
(In CRED reprint ser.no.30)
(In Reconstruction and Development in Nigeria, ed. by A.A. Ayida and H.M.A. Onitiri, Nigerian Inst. of Social and Economic Research, 1971)

9. ABSTRACT

10. CONTROL NUMBER PN-AAE-986	11. PRICE OF DOCUMENT
12. DESCRIPTORS Economic development Nigeria	13. PROJECT NUMBER
	14. CONTRACT NUMBER CSD-2547 211(d)
	15. TYPE OF DOCUMENT

CSD-2 547 211(d)
Mich. ~~7/11/81~~ 986

The Development Process

by
O. ABOYADE

and

Comments on Professor Aboyade's Paper

by
WOLFGANG F. STOLPER

CRED Reprints
(New Series)
No. 30

Center for Research on Economic Development
University of Michigan
Ann Arbor, Michigan 48108

Center for Research on Economic Development
CRED Reprints

- *No. 1. "Nigerian Government Spending on Agricultural Development: 1962/3-1966/7" by Jerome C. Wells. (*The Nigerian Journal of Economic and Social Studies*, November 1967, pp. 246-275)
- No. 2. "Major Issues of Wage Policy in Africa" by Elliot J. Berg. (*Industrial Relations in Economic Development* edited by Arthur M. Rose, Macmillan, 1965, pp. 185-208)
- *No. 3. "The Myth of the Amorphous Peasantry: A Northern Nigerian Case Study" by Polly Hill (Mrs. M. E. Humphreys). (*The Nigerian Journal of Economic and Social Studies*, July 1968, pp. 239-260)
- *No. 4. "Urban Real Wages and the Nigerian Trade Union Movement, 1939-60: A Comment" by Elliot J. Berg. (*Economic Development and Cultural Change*, July 1969, pp. 604-617)
- *No. 5. "Turkish Economic Development: The First Five Year Plan, 1963-67" by Wayne W. Snyder. (*The Journal of Development Studies*, October 1969, pp. 58-71)
- *No. 6. "Hidden Trade in Hausaland" by Polly Hill, (*MAN*, Vol. 4, No. 3, September 1969, pp. 392-409)
- *No. 7. "A Comment on Peter Kilby: Industrial Relations and Wage Determination" by John F. Weeks. (*The Journal of Developing Areas*, Vol. 3, No. 1, pp. 7-17)
- *No. 8. "Measuring the Effects of Belgian Budget Policies: 1955-65" by Wayne W. Snyder. (*Cahiers Economiques de Bruxelles*, No. 44, 1969, pp. 527-548)
- No. 9. "The Long Term Economic Development of Germany" by Wolfgang F. Stolper. Review Article of Walter G. Hoffmann, *Das Wachstum der deutschen Wirtschaft*, (*Weltwirtschaftliches Archiv*, Vol. 103, No. 2, 1969, pp. 57-61)
- *No. 10. "International Financial Issues in Foreign Economic Assistance to the Less Developed Countries" by Robert M. Stern. (*Economic Development and Structural Change* edited by Ian G. Smith, Edinburgh University Press, 1969, pp. 47-70)
- No. 11. "Money in a Developing Economy: A Reappraisal" by Wayne W. Snyder. (*The Review of Economics and Statistics*, Vol. LII, No. 1, February 1970, pp. 54-61)
- *No. 12. "An Econometric Model of Development: Comment" by Peter Eckstein. (*The American Economic Review*, Vol. LX, No. 1, March 1970, pp. 227-235)
- *No. 13. "Who Destabilizes Primary Product Prices?" by Richard C. Porter. (*Indian Economic Journal*, Vol. XVI, No. 4, April-June 1969, pp. 389-413)
- *No. 14. "Two Types of Planning" by Wolfgang F. Stolper. (*Schweizerische Zeitschrift für Volkswirtschaft und Statistik*, Vol. 106, No. 1, 1970, pp. 45-58)

"The Development Process" by O. Aboyade, and
"Comments on Professor Aboyade's Paper" by
Wolfgang Stolper are reprinted from
Reconstruction and Development in Nigeria
edited by A.A. Ayida and H.M.A. Onitiri.
Copyright 1971 by the Nigerian Institute of
Social and Economic Research.

reprinted from:

**RECONSTRUCTION
AND DEVELOPMENT
IN NIGERIA**

Proceedings of a National Conference

Edited by

A. A. Ayida

and

H. M. A. Onitiri

**PUBLISHED FOR THE NIGERIAN INSTITUTE OF
SOCIAL AND ECONOMIC RESEARCH**

IBADAN · OXFORD UNIVERSITY PRESS · 1971

2

The Development Process

O. Aboyuáe

University of Ibadan.

Background

Considerable progress has been made in the last two decades in the quantitative analysis of the growth of national economies. From various international comparisons which have been attempted, two broad conclusions would seem to stand out. First is the bewildering variety of countries--in size, population, resource, social system, political organization and other institutional characteristics--which have experienced economic growth over the last century.¹ The second conclusion is the detection of some underlying unity in the sequential process by which most economic transformation has been achieved in spite of the diversity in the actual rates of performance.² There is thus the universality of the possibility of economic growth on the one hand and the uniqueness of the broad forces which determine its process on the other. One of the vital tasks of modern economic analysis, however, is to identify the specific mechanism by which an economy in a given time-space dimension can achieve the best possible growth. Detailed case studies are particularly essential for policy formation, since the effectiveness of any policy measure depends on the peculiar circumstances of a country and of the time period involved.

The need to reappraise both the prospects for Nigeria's economic development and the process by which such development could be achieved does not need to be emphasized at this stage of the country's history. The relevant background considerations are the increasing gap in the development performance between the advanced and the underdeveloped countries of the world; the uninspiring performance of the United Nations' first 'development decade' from Africa's viewpoint; the exaggerated promise of the success of a mixed-economy' system in Nigeria as one of the show-pieces of

western democracy in Africa; and the excruciating civil war which the country has been engaged in over the last two to three years. It is an opportune time for economists to re-examine their arsenal of growth theories and ask whether they possess a proper understanding of what makes the Nigerian economy tick. Unless we can unravel the mechanics of the country's economic performance, our effort at reconstructed development may only succeed in bringing us back to square one of our national troubles.

This paper examines some of the growth theories competing for the attention of economists interested in Nigeria's development problems; traces the broad features of the country's economic performance over the last two decades with particular reference to the civil war; sketches broadly a theory of the development process which may guide policy makers for the future; and discusses what meaning should be attached to economic reconstruction. The main theme of the paper is that given the observed character and performance of the Nigerian economy over the last two decades and especially during the past three years, the pace of economic growth in the immediate future will depend on a better appreciation of the underlying complex set of interrelated factors. Specifically, it is argued that the process of cumulative development will only be sustained by bringing to bear on the nation's development strategy two areas of social reform; namely, institutional reorganisation and the reorientation of economic policy.

On the basis of those reforms, the mechanism of economic growth in post-war Nigeria can then be identified as lying in the simultaneous pursuit of three basic measures as the core of a development planning model. The first prong of the operational strategy is the achievement of increased productivity per man-acre and per man-hour in agriculture and especially in the sector of food and raw material production for domestic consumption, without prejudice to continued benefits from agricultural export. This result needs to be brought about by a higher marginal physical productivity per unit of land-labour input without a fall in the revenue product. Its purpose will be not only to raise agricultural, and hence national, income for higher and diversified consumption within the period, but also particularly to create a large social surplus for much-needed capital formation. The second element of the growth determinant is to be found in a greater structural shift of resource use towards more manufacturing industries, guided by more disciplined consider-

ations of social profitability. The third, but not the least important, is the powerful stimulus for growth which could come from the maximum possible expansion of petroleum production to generate some of the enormous foreign exchange and government revenue required to sustain the difficult process of reconstruction and development in an underdeveloped economy that has been overstretched by a long, wasting war.

Typology of Growth Theories

It is assumed that it is not necessary to restate here why a good theory is an essential foundation for a worthy policy prescription. Theoretical analysis should be taken as the automatic starting point of any objective discussion of development problems. But, unfortunately, there is no single theory of economic growth; nor is there much hope that there could ever be one. As Arthur Lewis observed long ago, 'the factors which determine growth are very numerous, and each has its own set of theories.'³ If the purpose of a theory is to enable us to predict with a fair degree of confidence how a particular phenomenon will react in a given situation, then a general theory is useful only if all situations are similar in place and time. Our first task, therefore, is to discover a theory which can best approximate the Nigerian situation of the 1970's.

Unfortunately, economists interested in that specific problem are today at a loss. There is no ready-made theory at hand. Constructing one from the start requires a number of complicated and interrelated steps. First, we have to look at the general body of economic doctrine and see which parts are capable of being extended to the underdeveloped countries of today. Second, we must examine, out of those selected in the first step, which elements can be best fitted to the nature and the extent of underdevelopment typified by Nigeria. Third, we must adapt the result of the second step to the peculiar problems which the country is likely to be faced with in the 1970's. Then, and only then, can we claim to have a fair theoretical scheme as a basis for analysing the past and current performance of the economy, for understanding its working mechanism, for predicting likely changes in the immediate future and for prescribing policy measures to achieve as well as possible a defined set of social objectives.

On the first step, of selecting--from the general pool of economic doctrines over the years--those elements which could be usefully applied to the underdeveloped countries, there is the fundamental problem of the degree of realism or

relevance of these doctrines. In the last two decades, considerable debate has taken place in the literature as to whether or not 'Western' (or, for that matter, 'Eastern' or 'Marxian') economic theories can be readily applied to the underdeveloped countries of today, both in terms of their realism and their relevance.⁴ But as Hla Myint argued about four years ago, there is great danger in throwing out the baby with the bath-water. What is needed is really an extension and an adaptation of those economic doctrines. Specifically, the right approach lies in the 'introduction of a new thorough-going dynamic approach that is capable of dealing with the changes in the techniques of production involving the "transformation" of the whole organisational structure of the underdeveloped economies'.⁵ This new dynamic approach, in essence, means 'widening the scope of conventional economics to take into account the broader sociological factors that make up 'political economy' in the classical sense'.⁶

It is in the light of this that economists who are interested in designing theoretical constructs for development policy in the underdeveloped countries have been turning back to re-examine the works of the classicists. One of the earliest and best-known contributions to this movement was the analytical model published by Professor Arthur Lewis in 1954⁷ and extended in 1958.⁸ Over the last fifteen years, this path-breaking attempt by Lewis has produced many fruitful results through greater articulation and refinement from other quarters. Perhaps the most comprehensive as well as the most rigorous extension of the basic Lewis model is the joint work of Gustav Ranis and John Fei, first through a series of articles⁹ and later through synthesis in book form.¹⁰ Remarkable as these developments are, they are nevertheless still confined to the case of an underdeveloped economy characterized mainly by a super-abundance of labour.

There is little doubt that post-war advance in theoretical studies of the underdeveloped economy has been influenced almost completely by the population features and social problems of Asian countries. This emphasis, from the point of view of African countries, constitutes another limitation of the special case—a limitation of the second degree—to follow Dudley Seers' phraseology. The set of limitations involved for the rest of the underdeveloped world has been pointed out by Hla Myint, who also argued the policy danger which may arise 'in trying to generalize from underdeveloped countries the standard Indian model of development planning'.¹¹

It is tempting to apply the labour-surplus model to the development problems of African countries. Firstly, although the population pressure is far less than in Asia, the problem of growing urban unemployment superficially resembles the underlying assumption of unlimited labour supply for the Asian model. Secondly, the typical description of Dualism as a model of economic transformation would appear to fit both the Asian and African cases, in the sense of a mutual co-existence of a 'traditional' sector which is gradually eroded or absorbed by a 'modern' sector. Thirdly, the two areas would seem to have common features which are strategic to development theorizing: low levels of incomes, saving, capital accumulation, technology, labour productivity, foreign exchange earning ability, etc. Finally, both areas would appear to be at comparable stages of economic growth in the famous broad nomenclature of progress sketched by Walt Rostow some ten years ago.¹²

But some of the foregoing similarities, which would have formed the basis of applying the same theoretical framework to say both India and Nigeria, are more apparent than real. The difference in land-labour ratio is sufficiently large to render the agricultural meaning of unlimited labour supply inapplicable to the Nigerian case. The marginal product of labour in Nigerian agriculture is simply not zero. Dualism, in the Lewis model, is in respect of the interaction between a 'subsistence' (agricultural) sector and a 'capitalist' (industrial) sector within a closed economy. In the sense in which the term has been applied to African countries, especially by past writers of United Nations reports, the Nigerian 'prototype' is seen as a transformation of the traditional peasant agriculture from the stimulus transmitted from the external sector (demand by the industrial countries for tropical raw materials). The similarities in the values of various macro sub-aggregates, as between the Indian and Nigerian situations, are valid only in a static equilibrium sense, but cover up many dynamic factors of growth which are bound up with a country's political, social, cultural and other institutional attributes. Even if the Rostovian scheme were a useful way of looking at international differences in the pace of economic growth (and the various criticisms it has received in the literature will render it at best questionable), it cannot be empirically sustained that Nigeria and India are at comparable points in the take-off process.

Dissatisfaction with the mainstream of development theories in their applicability to the Nigerian case recently

stimulated Gerald Helleiner to propose an alternative model, based on the simple recognition that what is super-abundant in Nigeria is not really labour but land.¹³ Helleiner was not, of course, the first to use it as a basis for an analytical model to explain development in Nigeria's agricultural sector. Wolfgang Stolper had earlier pointed out the inadequacies of the labour-surplus model under Nigerian conditions and had in fact, prophetically hinted at a description which was later to become the title of Helleiner's model. 'If anything', he wrote, 'the theoretical problem is "development with unlimited supplies of land"—a variation, with a bow to its famous author, W. A. Lewis' well-known title'.¹⁴ A forerunner of the land-surplus model itself can be traced to a section of an essay written by Helleiner two years earlier. In his paper, 'Peasant Agriculture Development and Export Instability: The Nigerian Case' presented at an Edinburgh Conference in 1964, he had argued that:

'Dualism in Nigeria is of a special sort: the unemployment (overt rather than disguised) is in the modern urban industrial sector rather than in agriculture. The government is, in fact, attempting to persuade these unemployed to return to the land where their marginal productivity will be higher. Arguments for increasing investment in agriculture in order to provide labour for industry is not labour, but capital and entrepreneurship'.¹⁵

In the actual model, Helleiner (unlike Ranis and Fei, following Lewis) treats the land-surplus situation as a case in its own right rather than as a theoretical curiosity hitherto relegated to the foot-notes. The problem of development, therefore, becomes more one of how to raise labour productivity through mobilizing under-utilized land than of the mobilization of under-employed labour. An agricultural surplus is created too in the land-surplus case, which could be mobilized for expanding material output. This surplus, however, differs conceptually from the disguised unemployment which characterizes the labour-surplus model; in the sense that in this case farmers are only 'unemployed as a matter of conscious preference for leisure over additional material output, at prevailing prices and the existing level of technology'.¹⁶ With higher prices, the farmers respond with increased labour inputs (the substitution effect net of income effect) which could be matched in successive stages by increased land inputs, without changing the existing land-intensive production technique.

Economic Performance before the Civil War

Helleiner uses the land-surplus theoretical construct as a

technique for analysing the performance of the Nigerian economy since the beginning of the twentieth century. Following the usual thesis of externally-induced growth, he traces the effect of the enormous growth in export earnings on the expansion of cultivated area in Nigerian peasant agriculture as well as on increased labour input in man-hours through the substitution of work for leisure. He argues that for most areas of the country, the peasant farmers responded to the income incentives from export by varying both land and labour inputs but operating with fixed proportions at constant returns to scale. The result was that 'productivity per man was thereby increased; productivity per acre or per man-hour, however, scarcely changed at all, except as value productivity was increased by changes in the product mix'.¹⁷ The higher incomes (through better prices but mostly through greater output) received by peasant export farmers had a radiation effect which drew more farm families and more land into production for export. This radiating effect on the rest of the economy became more pronounced as transport and distribution facilities improved and reached more and more remote areas.

A fuller treatment of the empirical data used by Helleiner to explain the working of his model is provided in his book on Nigeria¹⁸ which was published in the same year as his article we have been discussing above. The problem, however, is not whether some facts fit the model but whether we can continue to count on the model as an adequate basis of what has been happening in the economy in recent years and whether it can provide us with a basis for predicting what is likely to happen in the immediate future. Helleiner himself recognizes, both in his book¹⁹ and in his article,²⁰ that the model is not uniformly applicable to all areas of the country. But to us that is not really a crucial issue; and he has himself rightly questioned—given the model's objective—the legitimacy of breaking down a national economy into constituent areas (characterized by different production techniques and different relationships of population to arable land) to which different models can be applied to explain working of the Nigerian economy from say the time of political independence, through the civil war, to the reconstruction period of the 1970's.

Perhaps we can start again by looking at the facts of the nation's economic performance over the last ten years or so. There is little controversy about the performance of the Nigerian economy between 1950 and 1954. The gross

domestic product at constant prices grew steadily at an average annual rate of 5.6 per cent. Parallel structural key indicators over the same period include a steady increase in the gross investment ratio; a remarkable export surplus resulting in accumulated foreign exchange reserves; modest shifts in the composition of production away from agricultural activities towards manufacturing, public utilities, building and construction, transport and communication, banking, insurance and professional services; acceleration in the rate of urbanization; and the beginning of a new political movement and style in social organization that were later to enhance the impact of government on the pace of economic change.

It is the period between 1955 and 1960 which appears to give ground for some controversy. Many writers, basing their analyses on the same or a similar set of national income statistics as for the earlier period, concluded that the second half of the decade was largely one of a slow-down of the earlier pace of growth.²¹ They argued that the rate of growth fell in the second half of the decade to about half the average level achieved in the first half of the decade, and that the absolute values were actually negative in 1956 over 1955 and in 1958 over 1957. Arthur Lewis, on the other hand, maintained that the economy grew steadily over the whole decade.²² He distrusted the official national income data and queried particularly the underlying harvest cycle assumptions in the agricultural sector. The rate of growth of the Nigerian economy, he argued, was actually accelerating slowly throughout the 1950's as the faster growing sectors became more important.

Obviously, different sets of facts will lead to different assumptions about what factors made the economy perform the way it did, and hence will lead to the construction of different theoretical models to explain what development process the economy is likely to follow in the succeeding or future period. For example, the present writer in some of his earlier works, has tried to justify the observed decline in the economy's growth performance in terms of structural shifts in resource use and particularly the changing composition of gross domestic capital formation.²³ Wolfgang Stolper, dismissing the validity of changing weather conditions and deteriorating terms of trade as explanatory variables, agreed that the proper focus of attention from a planning standpoint should be on the structure of capital formation. 'The fact that the rate of increase of Nigeria's national income had started to decline', he wrote of the period

between 1954 and 1960, 'suggested strongly that past increases had been at least to some extent the result of a multiplier effect which was being exhausted. Unless, therefore, something was done about the *composition* of investments, there was a real danger that a constant stream of investments would simply lead to a constant level of income. The growth effects of investments cannot be taken for granted'.²⁴ Arthur Lewis, on the other hand, found little cause to worry about the changing composition of investment in the context of Nigeria of the 1950's. Firstly, he denied there was any decline in the economy's growth rate in the first instance. Secondly, he approved both the enormous investment in housing and, by implication, the increased shift towards it in the late 1950's. He argued that a modern house is the best collateral that a Nigerian borrower can produce; that the more modern houses Nigerians own, the easier it will become to channel capital towards farmers and small industrialists; that a house is as valuable a commodity as anything that comes out of factories; and that if the prime purpose of production is to satisfy need, then building houses is a more direct way of achieving the purpose. Actually, the argument about the proportion of investment expenditure going into housing as against alternative investments is only part of the argument about structural shifts in capital formation. Much of the complaint also rested on the decreasing attention being paid to social profitability, especially in public investment decisions. Thirdly, the prime mover of economic growth in Nigeria had historically been, and still was, agricultural export; and that agricultural commodity output had been growing throughout the decade at about 5.5 per cent per annum. The growth of manufacturing was a lesser prime cause of the growth of the economy. The rapid expansion of distribution and transport was due to the initial growth of agricultural export; and so was the growth of import which the growth of export financed.

The apparent difference in facts, and hence in analytical interpretation, thus calls for a brief closer examination. In a seminar paper presented at Ibadan in November 1966, Arthur Lewis²⁵ argued that the so-called deceleration in the rate of growth of real output in Nigeria after 1954 was due to a number of methodological defects in the basic national income tables published by Pius Okigbo. The first, and arithmetically the most important, factor was the behaviour of the food production series, or what Okigbo called 'crops grown primarily for domestic use'. The second was the output of distribution activity, which was treated largely as a residual balance by Okigbo. The third element was the way a

number of output series (especially livestock and crafts) was held constant over the period 1950 to 1957 despite population growth. The combined effect of these defects, according to Lewis, was to overstate the absolute values of the gross domestic product in the earlier years, understate them in the later years, and thereby introduce an artificial deceleration in the growth rate in the second half of the decade. Making different assumptions in respect of the defective sectors, he derived a corrected series of gross domestic product at constant prices whose growth path was not only smoother but approximately linear at about 3.7 per cent per annum for the period 1950-1957.

It is not within the scope of this paper to restate the details of how particular figures were arrived at in Okigbo's national income series. Lewis has rendered a great service by calling attention to the hazards of national income estimation in an underdeveloped country like Nigeria, and by pointing out the implications for both economic analysis and economic policy of different assumptions which may be made in any such exercise of production measurement. To the present writer, Lewis is correct on some of his strictures about the way a few items were handled in Okigbo's accounts, especially in the context of their inter-temporal changes. For example, it was wrong to hold the land development time series constant; and as the present writer has pointed out elsewhere, the original result for the sector was different from the version later published.²⁶ Lewis is also correct in defining the value added by Marketing Boards as profit *plus* increase in stocks, and not as profit *minus* increase in stocks as in Okigbo. But even if one accepts his more debatable points on the time-series valuation for Government, Missions and crafts, they will, together with the foregoing valid criticisms, make only a marginal difference to the time profile of Okigbo's series. The real difference of significant quantitative magnitude comes from his queries in respect of food production, livestock, transport and distribution series. But here it is important to emphasize that Lewis' quarrel, or at least concern, is not with the sources or methods of estimating the output of any of the four sectors for any particular year—except in respect of Okigbo's method of converting the gross domestic product at 1957 factor cost when handling the distribution series.

Essentially, Lewis accepted the 1957 base-year estimates as pegs but disagreed with the extrapolation backward to link with 1950. He argued that the export crops series in Okigbo

behave 'normally' while the food series behave 'incredibly'—first rising at an 'unlikely' average of 5.3 per cent per annum between 1950 and 1954 and then falling sharply. Instead, Lewis assumed that the food series increased at a steady 2.5 per cent per annum for the entire period 1950 to 1957 for the apparent reason that it just looked neater and more 'plausible'! For the livestock series, he assumed another steady growth rate of 2 per cent per annum. On the other hand, he disbelieved Okigbo's claim that the transport sector could have increased by 160 per cent over the eight-year period and substituted a figure of 100 per cent as the maximum likely limit, an aggregate growth which he then distributed at an equal growth rate over the intervening years by simple interpolation. It is therefore, not surprising that his resulting modified totals of gross domestic product should yield a simple linear growth path between 1950 and 1957.

For the purpose of this paper, however, it is not necessary to accept or reject Lewis' specific criticisms of particular sector series. Some criticisms (like livestock) appear legitimate and valid. Some (like transport) are not less arbitrary than what they were supposed to replace. Others (like food) are not necessarily more convincing simply because a steady growth rate looks neater: a wish-belief rather than an empirical reality. For our immediate purpose of aggregate analysis, the more crucial consideration is whether all the assumed errors in the Okigbo series make any significant difference to the final figures on gross domestic product in terms of mutual compensation. In another critical review by Ifegwu Eke of the Okigbo series—a review which also strongly questions particular sector estimates for particular years—the balance of judgement was that the various errors compensated fairly well. 'Okigbo's totals are reliable', Eke concluded, 'because they generally indicate the directions of change which are most probably in accord with Nigerian experience . . . If the errors in GNP components are allowed to offset one another there will be no change in the estimated error in Okigbo's totals'.²⁷ We conclude therefore by insisting tentatively that, until a more articulate national income series (in both components and totals) are provided, the Nigerian economy experienced some deceleration in its growth in the second half of the 1950's compared with the first half. This conclusion remains generally valid, though probably not as strongly established as before, even when account is taken of the fact that the figures of gross domestic product pre-1957 and post-1957 are not strictly comparable.

The period since the achievement of political independence can be similarly divided into two; viz. between 1960 and 1965 as one period, and since 1966 as another. The second part forms the topic of our discussion in the next section, covering the period of a grave political crisis followed by an intense civil war. The first part occupies our attention for the rest of this section.

The immediate post-independence years in Nigeria witnessed a steady expansion in general economic activities. The growth rate of the gross domestic product in constant prices picked up again, reached and (by 1962) surpassed the almost 4 per cent level which was averaged in the preceding decade. Building and construction revived; manufacturing and public utilities expanded substantially; and so too the remarkable growth of mineral oil production and of transport and communication services. But although the five years following Independence showed in general better performance of the national economy than the preceding five years, this pattern is not uniformly valid for all years within the two periods. In fact, the two years immediately preceding 1960 had higher growth rates than the two years immediately after 1960. This meant, in effect, that the general performance of the economy was distinctly more impressive for the period 1962-65 than for the period 1955-58. Apart from growing balance of payment difficulties, the striking features of the Nigerian economy in the period 1960-65 include the steady decline of the relative contribution of agriculture, forestry and fishing to the gross domestic product; the new upsurge in the production of crude oil; the intensification of import substituting industries by the establishment of medium and large-scale manufacturing plants; a sustained building boom; and the expansion of social services, especially of high-level education.

The period 1960-65 also seems to represent a threshold of structural changes in the economy that have implications for the prime force driving the system forward. It was becoming increasingly important to distinguish between the gross domestic product and the gross national product. In spite of deteriorating terms of trade (which fell from 100 in 1954 to 80 in 1963) and of continued fluctuations in export earnings,²⁸ there was steady growth in the gross domestic output. The period of trade deficits which had started in 1955 not only continued but was intensified; such that, even when the trade deficits were reduced from about 1962, there was still a steady decline in the country's foreign assets. The prime force for the

growth of the national economy appeared to be switching some of its strength from the external to the domestic front. A direct reflection of this was what was happening to the monetary system. As the Central Bank moved into full gear as an effective monetary manipulator,²⁹ the balance of payments no longer became as direct a determinant of the money supply. In sharp contrast to the situation under the Currency Board system, money supply expanded even in periods of deficit in the balance of payments. In fact, it was becoming increasingly clear that the growing deficit in the balance of payments was now a significant function of the expansion in domestic money supply.³⁰

From 1960 to 1965, money supply rose at an average rate of about 8 per cent per annum; and yet the general level of prices rose by only 3 per cent. Part of the explanation is to be found in the declining foreign exchange reserves which took much of the strain off the potential inflationary pressure. But there were also other factors involved—sharp increases in import duties and even occasional quantitative restrictions to dampen import demand; measures to control credit especially in the period 1962-63; an intensive import-substitution programme of industrialization; and the remarkable resilience of agriculture, especially of food production for domestic consumption. A major reason for the large expansion of credit (and hence of money supply) to the public sector was the growing budgetary deficits of the governments, especially since the inception of the first National Development Plan in 1962. But there was also much credit extended to the private sector to finance both the general increase in the level of economic activity as well as the structural changes taking place in the economy. Capital formation as a proportion of gross national product rose from about 12.5 per cent in 1958-59 to about 16 per cent in 1964-65; but even more remarkable was the growth in domestic savings which as a proportion of gross national product rose from about 8 per cent in 1958-59 to about 12 per cent in 1964-65.³¹ The import surplus made it possible to sustain the gap between investment and savings; a gap which was financed both by drawing down previously accumulated foreign exchange reserves and (particularly important since 1962) by a new form of international financing through foreign contractor finance and supplier credit.³²

Apart from the development of petroleum production, most of the transformation that took place in the economy since political independence, and especially since 1962, was

geared to the domestic front. This was so even with petroleum because with the completion and beginning operation of the oil refinery in Port Harcourt the domestic market was already coming more into the picture from 1964. The industrial sector, though still small in relation to gross domestic product (approximately 7 per cent in 1965) was growing at something like 10 per cent per annum. Gross capital formation was growing fast and especially the sectors of plant, machinery and civil engineering which were together increasing by 10.8 per cent per annum. Foreign private investors shifted on a massive scale from their traditional areas of trading, business, plantation and transport to the new growing points in manufacturing and processing. Nationals moved in on many fronts, especially in small-scale enterprises. More significantly, the proportion of capital formation attributable to current domestic savings rose from about 60 per cent to about 74 per cent during the period. Even the import content of capital formation fell from about 45 per cent to about 37 per cent; with the growth of domestic industries producing cement, other building and construction materials, transport bodies and simple metallurgical products. The import coefficient, which had exhibited an upward trend till 1960, moved downward during this period.²³ Before 1960, the import scene was characterized by high coefficients for food and other non-durable goods. Since then, domestic import-substitution industries have considerably weakened the import coefficient for items like beer, stout, textiles, cement and other building materials. The import of raw materials had also grown at a lower rate than the growth of productive capacity—reflecting the response of domestic activities (including agriculture) to the demand for industrial raw materials. The productivity of these domestic investments was probably rising, as roughly indicated by the crude measure of overall incremental capital-output ratio which fell from about 3.3 to 2.2 over the five-year period.

The intention here is not to impress that all was well with the Nigerian economy during this period. There were many weaknesses, especially in the area of policy and planning, which have been the subject of comment by many authors as well as the present writer. Most of the weaknesses and the writings are well known.

In summary, the idea of our analysis in this section has been to point out the structural changes in the economy which could render invalid old notions about what makes the Nigerian economy tick. More and more, the economy has

been depending on its own domestic steam. The prime movers were changing from agricultural exports to home industries, food production and public policy. The threshold lies within the period 1960 to 1965 and may be tentatively suggested as being around 1962-63. Probably the best testimony to the fact that the centre of gravity for Nigeria's economic growth was changing homewards is the way the country has managed to survive its major political and military crisis since 1966.

Economic Performance during the Civil War

It is perhaps hazardous, for anyone to try and assess the full impact of the political and military crisis on the economy. But for the purpose of this paper, the workings of the economic system during the crisis are of great relevance to the problem of reconstruction and to the analytical construct for any future development policy. The strength and weakness of a development process are perhaps best highlighted in such a situation. The different factors competing for the attention of the economic theorists as the prime movers of growth in the economy also have a better (although admittedly tragic and costly) chance of staking or testing their candidature.

The period 1963-64 was one of peak achievement in post-independence Nigeria. But by 1965, the impetus had weakened; and the political crisis of 1966 only helped an already deteriorating situation. The growth rate of the gross domestic product slumped to under 3 per cent even before the outbreak of civil war in the middle of 1967. It is true that both commodity imports and exports fell in 1966 as compared with 1965; but it would be a mistake to attribute the weakening growth rate as being caused by declining activity in the external trade sector. For one thing, the decline in growth rate preceded the decline in external trade. For another, the fall in imports was greater than the fall in exports—as witnessed by the higher proportion of commodity imports financed by commodity exports in 1966 than in 1965. In fact, the deficit trade balance had started to improve in 1964 and had turned into a positive balance by 1966. The major explanation for the decline in growth rate, it would seem, is to be sought on the domestic front; and especially in the fact that government spending as well as private investment had started to weaken by late 1964. It was probably the negative multiplier effect of this which was reflected in the downward movement of imports, quite apart from the impact of fiscal restrictions on private import consumption. The increase of

imported machinery and transport equipment in 1965 over 1964 was less than in the preceding year, and there was an absolute decline in the value of imported commercial road vehicles.

The weakening of government spending was due to a variety of factors. Although total recurrent expenditure for the federal and regional governments combined was increasing, the rate of increase had slowed down by 1965. But the major explanation was on the capital side. The total capital receipts from all sources, which had risen to £65.5 million in 1965-66, in fact fell to £63.4 million the following year, and much further still in 1967-68. There was still a modest increase in grants (from Marketing Boards and outside sources) as well as a substantial increase in internal loans, mainly through the Central Bank under-writing the series of Development Stock. The main items of decline in capital receipts were transfers from the consolidated revenue fund and external loans. Government capital expenditure appeared to have reached a plateau by about 1964. In the following year, total capital receipts as a proportion of total capital expenditure grew from about 50 per cent to about 75 per cent. This reflects a growing weakness in the movement of current revenue surplus; increasing difficulties with arrangements for contractor finance and supplier credit; the belief that the drawing down of the foreign exchange reserves was already reaching the critical minimum permissible limit long hallowed by international bankers as the equivalent of four months' import bill; and the fear that continued expansion in deficit financing might endanger the stability of foreign confidence in the country's currency. The decline in the volume of external loans after 1965 may reflect growing anxieties abroad about political prospects in the country, on the basis of developments during and after the Federal parliamentary election of 1964 and the Western regional election of 1965. It also probably reflects the growing administrative difficulties in submitting bankable projects within the framework of the National Development Plan. Due to weaknesses in the administrative machinery for plan control, some projects in the social sector and/or with lower developmental priority had been earlier initiated in the plan period. Then the various lags in project preparation in the development sectors started to tell on plan execution. This was compounded by the shortage of executive capacity; changes in project design, especially in the uncertainties of which potential donors would favour which projects; and by the long process of actually negotiating specific loan agreements even after the principle had been agreed.

The deceleration in growth rate in 1965 was heralded by the weakening impetus from domestic capital formation a year earlier. The level of new investments in construction and civil engineering works as well as in the sector of land, agricultural and mining development was lower in 1964 compared with 1963. For the strategic sectors of trade, industry and transport, total government capital expenditure had started falling badly in 1964 from the peaks achieved in 1963. Despite the fact that by 1965 gross capital formation had picked up well (from the boost given by private capital investment in plant, machinery and equipment as well as by civil engineering works), this came too late in the year to have much impact on the current growth of output. Building construction in any case did not show significant improvement. The increased investment performance in 1965 was probably a reflection of decisions taken at least a year before. But it was a short-lived revival, as the political events of 1965 must have affected decision-making that year and hence affected actual investment performance in 1966. The increase in gross capital formation in 1966 over 1965 was lower than the increase of the preceding year. Investment expenditure in the private sector was only infinitesimally greater in 1966 than in 1965; but there was no significant change in the public sector either.

It should not be inferred from the above that changes in the level of gross fixed capital formation, lagged by a year, are an adequate explanation of changes in the rate of growth of the gross domestic product. They are only a contributory factor. Probably more important are shifts in the composition of capital formation taking place and the degree of efficient utilization of the existing stock of capital in the economy in any given year. By 1965, past investment in some projects with long gestation periods had also started to pay off. There was dramatic growth in value added from such activities as petroleum oil, manufacturing and processing, electricity, communications and higher education. But for this development, which acted as a counterbalance, the observed weakening in the lagged investment would have affected the growth rate more severely.

Another interesting feature of this development is the apparent reduced statistical sensitivity of the gross domestic product to changes in agricultural production from about 1964-65, in spite of the still considerable weight of primary production in total output. In other words, the country was already entering a new phase of development shortly before the political crisis, in which the dominance of agriculture in the

determination of the country's progress was only valid in a numerical sense. This does not mean that agriculture was no longer important to the development process—far from it. What it does mean is that the structural importance of agriculture to growth is no longer to be seen as a direct link, but now becomes manifest through its integration with other more dynamic sectors of the economy. Until 1964, when the output of agriculture fell, the gross domestic output fell; when agriculture rose, total output rose. There was not always a proportionate change; but the direction of change was similar. After 1964, the parallel movement appears to have been broken. Agricultural stagnation or modest decline was no longer keeping the gross domestic output from rising in relative performance. Thus, there were already glimpses that the economy was breaking from the strait-jacket of agricultural export earnings as its chief growth determinant.

This change in the pivot of the economy has been underlined by the course of events since the outbreak of civil war. Domestic exports fell from their 1966 peak and have still not yet regained their pre-war level. With the blockade of the Eastern states, the export of both palm oil and mineral oil practically ceased until late in 1968 when partial production was resumed. The world prices of most agricultural produce which Nigeria exports fell almost continuously from their 1965 peak levels. There were, in any case, transport problems in evacuating the produce. Cocoa was the only exception in terms of world prices since 1967; but domestic production is nowhere yet near the level of 1964 or even of the lower level of 1966. Until the latter part of 1968, the general trend of agricultural export earnings was downward. Imports moved in sympathy and in general suffered a greater decline as a result of stringent fiscal measures dictated by war conditions. The continued drawing-down of foreign exchange reserves was due not to normal trade deficits but to the requirement for war arms and ammunition; a requirement which was so intense that by the middle of 1968 the level of exchange reserves had gone well below the conventional critical minimum.

There are as yet no national income figures to reflect the effect of this drastic decline in the external sector. We cannot say that the economy has prospered during this period, especially when we recall the tragic social miseries in the active war zones. But after some hesitation, the rest of the national economy outside those zones started to hold its own from 1968 onwards. Investment in industry first fell drastically in 1967; and so too did the inflow of capital in both the public and

private sectors. The financial position of Government was deteriorating with the rapidly widening gap between rising expenditure and falling revenue. The inevitable economic turmoil of civil war in an underdeveloped economy was not made easier by a series of international intrigues under the guise of humanitarian sentiments. Yet, the economy survives; and in that survival appear some object lessons about its real prime movers.

A number of inter-related factors were involved. First was the remarkable determination of the government to preserve the country and the national economy. The vacillations and uncertainties which characterized the first half of 1967 gave way to a firm and unambiguous set of decisions in political, military and economic policies. It was not simply a notice to the world that the country meant business; it was actually demonstrating it in every possible way. Psychologically, the world (and especially the Western powers) had hitherto underrated the determination of Nigerians to fight all comers for what they believed was in their best interest as Africans; just in the same way as the world had overrated the country's civilian government as the bastion of democracy on the continent. The inner force of a people is a secret weapon in nation-building which, in the light of the Nigerian experience, should qualify for the serious attention of development economists as a reserve but potent factor of production. Determination (or stubbornness) as a virtue (or vice) is not unique to any particular social group or nation. As a psychological attribute, it is more socially inspired than physiologically innate.

The new spirit of national consciousness and developmental commitment enabled a number of stringent policy measures to be adopted in 1967. There were cuts in the approved estimates of expenditure by all Ministries (except Defence and Internal Affairs) throughout the country; reduction in the strength and number of Nigerian missions abroad; a 5 per cent surcharge on duties imposed on a number of consumer goods; an increase in the rate of compulsory tax; a 5 per cent compulsory savings by all salary and wage earners in the Pay as You Earn system; a 10s. flat rate charge on all community and poll taxpayers; a subjection to import quota or total banning of a number of commodities. In 1968 the import duty surcharge was raised from 5 per cent to 7½ per cent; excise duties were imposed on a number of domestic manufactures and a once-for-all levy made on all pioneer companies making an annual profit of at least £5,000. Above all, there was massive recruit-

ment of personnel into the Armed Forces on a voluntary basis, an exercise for which there was never a supply shortage.

The second factor in the rallying of the economy, in spite of the weakening external sector, was the resumption of an expanding import-substituting industrialization. For many industries, the sudden loss of the Eastern States' market in 1967 was a major blow that only worsened their uneasiness about the future of the country. Apart from the general air of political uncertainty, some of them had been badly affected by the manpower dislocation of the inter-State exodus arising from the battle of nerves in the middle of 1967. The index of general industrial production had slumped in the second half of the year from its peak level in the second quarter of 1967, mining output had in fact fallen far below the very low level of 1963; and total manufacturing output just managed to hover above the 1965 level. However, by the end of 1967 the doldrums for most industrial activities (except petroleum) had been passed. The initial shock was over. Sales promotion was intensified in other areas of the country to make up for lost business in the blockaded Eastern States. A new impetus was given to domestic demand for manufactured goods by the series of stringent measures taken to curb imports and put a general brake on the use of foreign exchange. The refusal to devalue the country's currency in sympathy with the devaluation of Sterling, provided another need for further import restriction. Domestic factories reacted by taking advantage of the opportunity to increase their output and even expand their capacity. Those who had earlier invested in the country were now reaping the reward of their good judgment. Others who felt their interest threatened by the new measures were revising their earlier position and were now seeking to invest; but meanwhile their markets were cornered by those already established. The great potential of the Nigerian market was being more clearly seen as a crucial factor in industrial investment decision-making.

By the third quarter of 1968 and in spite of the exclusion of the plants in the Eastern States from the data, some industries like beer, stout, cotton textiles and footwear had caught up with their pre-crisis, or 1966, levels. And by the end of 1968, the production index of total manufacturing industries had surpassed the 1966 level, although still behind the peak performance of the first quarter of 1967. Even more significant perhaps is the fact that some export-oriented industries such as vegetable oil products had, by the end of 1968, reached a new record level of production. Industries which appear not to have

shown the same pace of revival were mainly of the capital-goods type, especially cement, roofing sheets and vehicle assembly. But even there, specific plants in specific areas of the country were in fact faced with the problem of being unable to meet the demand for their products. For a number of plants, all the ingredients of real or latent positions of industrial monopoly were present in the economy.

The third, and probably the most important, factor was the performance of agriculture in meeting the requirement for an expanded domestic food consumption. There was a highly enlarged national army. Apart from the substantial foreign exchange expended on buying munitions, the armed forces were financed mainly by local currency. In a situation of stagnant government revenue, this enormous budgetary cost could only, and was only, met by a huge expansion in bank credit. The inevitable result would have been inflation. But outside the blockaded areas (and in the Midwest temporarily in the second half of 1967), there was little sign of abnormal price increases. The food price indices for most parts of the country in fact remained remarkably stable. Part of the explanation, no doubt, may be found in some of the fiscal measures which restrained general consumption in the household sector and curbed the volume of imported food. But the magnitude of deficit financing was so great and the demand by the Armed Forces so substantial that the major explanation for stable food prices, in the absence of any evidence of reduction in non-military demand, must come from the corresponding increase in supply. In the early stages of the civil war, the extra supply needed was probably achieved from a diversion of market from the blockaded areas to the rest of the country. This would be true of the food-producing and normally food-surplus areas of the Middle Belt, whose traditional markets were for long the Eastern States. But subsequently, and especially since the early rains of 1968, some of the extra supply must have come from net increases in total output.

If 1967 is taken as base, tentative figures tend to suggest that the average level of food prices fell in 1968. It fell far more in the Northern parts of the country than in the South. Although there was an overall increase in the general index of consumer prices, the explanation is not to be found in any upward trend in food prices. Considering the weight of food items in the total budget study on which the index was based (almost half of the total for most parts of the country in respect of the lower-income group), this is a remarkable feature for an economy that was also involved in a massive civil war. The

downward movement of food prices in 1968 was also well spread, covering most items of domestic production. The main exception was rice. The great increase in the price of rice was particularly marked in Lagos and the main capital cities in the South, and may be associated with a preference for imported polished rice whose importation had been severely restricted by appropriate fiscal measures. In the North, where the taste and consumption pattern is different, the price of rice in fact fell by about the same average magnitude as other food items. The decline in price level was particularly marked in the North, and especially with respect to such grains as millet, guinea corn and maize. The differential price fall between North and South (an approximate gap of about 10 points in the two average deviations) may reflect the great transport bottleneck of 1968. Apart from the adverse effects of the war on transport equipment, railway and bridges, the excessive rains of 1968 worsened the already bad road conditions and hindered inter-State mobility of food products southwards. But despite this, the average level of food prices for the country as a whole fell regardless of the great increase in deficit financing under conditions of war. The unmistakable inference is the potential capacity of the agricultural sector and its ability to more than proportionately respond to increased demand.

In summary of our discussion in this section, it is clear that the various sectors of the economy have been differently affected by the civil war. Although in response to increased demand stimulus (arising from various causes), both industry and agriculture stepped up their production, agriculture demonstrating greater resilience and adaptability. But given the differential movement in prices and assuming that relative costs in the two sectors are unchanged, it is in fact industrial profitability which is likely to benefit more. It follows, therefore, that one strategy open to agricultural development in order to sustain continued inputs of investment and labour is to raise output considerably per man-acre so that the unit cost falls faster than the unit price. And within the agricultural sector itself, the increasing shift towards production in order to meet the domestic consumption of both food and industrial raw materials, may not only reflect less adverse internal terms of trade, but also a more rewarding direction for development in terms of greater linkage effects and higher growth inducement.

Theoretical Frame for Growth of the Economy

Our examination of the broad facts of Nigeria's economic

development over the last two decades has enabled us to appreciate as plausible the existence of a shift in the underlying prime movers for growth. To the extent that this shift is significant and indicative of a longer-run determinant, it is necessary to return to our earlier discussion about a suitable theoretical model for Nigeria's contemporary conditions.

We have seen that Helleiner's dissatisfaction with the traditional labour-surplus model in the African context has led him to suggest the more relevant land-surplus model. In this section, we argued that Helleiner's scheme needs to be extended before it can adequately explain the real nature of contemporary economic change in Nigeria, and therefore before it can provide a basis for prescribing a policy strategy for the country's post-war reconstruction and development. The solution is not to reject the labour-surplus theory, but to fuse the essential ingredients of both the land-surplus and labour-surplus models. The crucial question for policy goes well beyond the comparative relevance of competing theories. For an operational decision-making model, the important question is whether the theory is adequate for the purpose in hand. Therefore, we need to re-examine the main features of the two theories, restate the assumptions which should underlie any meaningful growth strategy for the contemporary Nigerian scene, and arrive at some kind of new analytical synthesis.

There has been some confusion about the real concept of Dualism in the literature of economic development. Sometimes it is posed as a conflict between a modern sector and a traditional sector; sometimes as the dichotomy between a money sector and a subsistence sector; and other times as the functional clash between industry and agriculture. Actually, the central dividing line is between a 'capitalist' sector employing wage labour for profit) and a 'non-capitalist' sector (with no wage employment and no profit motive). But since empirically in the underdeveloped countries the 'capitalist' sector is in real life identified with those activities which are modern, monetized and industrial (defined to include mining and plantations) and the 'non-capitalist' sector is associated with those activities which are traditional, subsistent and agricultural (mainly of the peasant variety), then the source of confusion is obvious. Writers on African economies have confused the issue further by associating the 'capitalist', modern and monetized sector with export activities (mainly agricultural produce but also including mining). By implication, the growth stimulus comes to be associated with the

export sector of national economies in Africa. This may be a good rationalization of the working of the colonial economic system and may have served to explain economic performance under the Currency Board system; but it neither fits the facts of Nigerian economic performance today, nor reflects the real essence of Dualism.

The original intention of the classical economists was to distinguish between productive and unproductive activities as a means of explaining the growing share of profit in the national income. This was their point of entry to the analysis of saving and investment. In that sense, Dualism has universal application and cannot be confined to colonial countries. In any economic system, saving and investment grow as the profit-making sector of the economy advances relatively to the non-profit-making sector. The main difference lies in the concept of 'profit' employed in the analysis. Whatever the facts of economic history, it is difficult today to identify any large sector of the Nigerian economy which can be regarded as non-profit-making in the sense of total subsistence and complete absence of profit motivation. There may be subsistence output in a national accounting sense. That is, however, a different matter; because not only is its valuation subjective and its relative share in total output unknown, but also because subsistence production as such is not at all peculiar to developing countries. Again, there must be only very few areas of Nigeria today where barter trading is still dominant. Also, once the economy escaped from the restrictive Currency Board system, the rate and process of monetizing the economy was being influenced by the Central Bank from a developmental viewpoint. Dualism, then, is only analytically applicable to the contemporary Nigerian situation in the sense originally intended by the classical economists.

Helleiner's model has performed a very useful service by getting economic theorizing on Nigeria away from the 'enclave economies' approach which has long dominated the analysis of Dualism in development literature. But the model itself was unnecessarily restricted to the performance of the peasant export sector. Perhaps this restriction was meaningful for Helleiner's purpose of explaining the long-run development of the Nigerian economy in the first half of this century. However, for our purpose of explaining the contemporary development process and in the light of our discussion about the performance of the national economy in recent years, it is necessary to relax, or indeed eliminate, this restriction. The entire agricultural sector, whether export or not and whether

peasant or not, deserves close attention. If any sub-sector of agriculture deserves closer attention, then the best candidate is food and raw material production for domestic use. There is enough empirical evidence to show that Nigerian farmers—peasant or not—have always responded well to improved prices of what they sell (whether abroad or at home) by increasing their inputs of land, labour, capital and organization to raise output.

Apart from this point of unnecessary narrow confinement to the peasant export sector, the land-surplus model still falls short of an adequate basis for a development strategy. Firstly, the implications of the model for the rest of the economy are not indicated. At least the labour-surplus model tells us what happens in the industrial sector from the effects of unlimited labour supply transmitted from agriculture. Secondly, the fact of land-surplus is wrongly identified with a situation of labour-scarcity. This is a non-sequitur. Land may be more surplus than labour in the agricultural sector. Labour may even be scarce to agriculture in both a numerical population sense as well as in terms of maximum possible man-hours; yet labour could be surplus to the industrial sector in the same way as in the labour-surplus model hypothesis. In any case, Helleiner himself recognizes both the historical and contemporary facts of variable factor proportions as output increases through additions to *both* land and labour inputs, with technology basically unchanged. There is no evidence that Nigeria has exhausted the economic use of either its unutilized land or its underutilized agricultural labour. Thirdly, the difference in the treatment of the 'agricultural surplus' between the two models is overstretched. Helleiner claims that in the land-surplus case, the agricultural surplus is conceptually different from the agricultural surplus in the labour-surplus case. For one thing, he argues, labour has positive marginal product in agriculture. For another, people are unemployed in agriculture only 'as a matter of conscious preference for leisure over additional material output, at prevailing prices and the existing level of technology'.¹⁴ Even conceding this conceptual difference, it may still make no analytical difference to the *industrial* effect of the labour-surplus case, as long as labour supply is still unlimited to industries at the going institutional wage rate. Labour could be surplus to industry without being surplus to agriculture; or it could be surplus to both.

It should be apparent, therefore, why Helleiner's model needs to be extended on the basis of more realistic assumptions

and in order to explore the implications for other sectors of the economy outside agriculture. If agricultural prosperity is necessary to sustain an expanding industrial sector, then the crucial question becomes how to evolve an appropriate development strategy that will generate the necessary conditions. It is not enough simply to create an agricultural surplus in such a process of development; we must relate the extra output to the changing set of inputs, to the market price of agricultural commodities and to the profitability of farming. If the agricultural surplus can be generated without extra cost to the industrial sector, other in terms of inputs of labour and materials which it buys or in terms of the prices which industrial workers pay for their wage goods, then the foundation for industrial prosperity and growth would have been laid.

The first direction, then, in extending the land-surplus model is by introducing variable proportions. But the penalty for doing this is the potential difficulty of ascertaining whether or not there are resulting increasing returns to scale and of allocating the returns to different factor inputs. It is the fear of this potential penalty that probably makes theorists assume fixed proportions and to conceive of marginal physical product as resulting from only one variable factor, all other factors being fixed and optimally organized without costs. But in a land-surplus peasant economy, rural land in its original Ricardian sense can be regarded as costless whether (a) to the economy as a whole or (b) to the particular peasant communities. Point (a) is consistent with the existence of pockets of land-scarcity within the national economy. But if the land-surplus situation predominates and given suitable mobility of factors and products, the statement can be defended as valid in an aggregate sense.

On point (b) the complication about legal ownership need not worry us. All that is necessary is for people to have access to the *use* of as much land as they may demand. If necessary, nationalization of *use* can be legislated for and made politically real by invoking the concept of the local public sector. In any case, outside a few pockets in the country, the *use* of land at no more than nominal cost has not been much of a problem.

The opportunity cost of such rural land outside agriculture may approximate zero. Considering the various possible organizational options, land acquisition costs (as distinct from compensations for perennial crops displaced) for the farm settlement schemes are a waste of public expenditure. As a

transfer payment, it is question of choice and not of necessity that such payments were made in the process of modernizing agriculture.

Big landlordism is largely absent under the peasant tenure system. Therefore the crucial measure becomes the way output increases with successive additions of labour in man-hours. It is irrelevant whether the labour is from wage employment or self-employment. As long as the extra return in terms of the marginal revenue product to the peasant is greater than the opportunity cost of his additional labour input, then output will be increased regardless of the return to land. The value of the land-surplus model is to point up the possibility of being more relatively wasteful in the use of marginal land than in the use of marginal labour. What is important then is not that the land/labour ratio will be increasing; but that under certain conditions the output/labour ratio can rise, such that the marginal revenue product is at least equal to (and, preferably, greater than) the marginal cost which is now attributed mainly to labour.

Under perfect competition conditions, the value of the marginal physical product equals the marginal revenue product because of the infinitely elastic demand curve facing the individual producer. This means a constant price level. But if there is an increase in total supply, the price level may fall. It need not fall, however, if the total demand itself is rising commensurate with supply. But even if total supply falls, it does not necessarily mean that the profit margin of the farmer is reduced. It could fall by less than the unit cost has fallen. His unit cost could fall even if his total cost rises, as long as there is more than a corresponding rise in output per man-hour/acre. The key therefore to a suitable agricultural strategy in our development process is to increase labour productivity in peasant farming; that is, to achieve higher yields per input of man-hour/acre.

The second direction of extending the Hellemer model is to relax the assumption of fixed technology. It is unlikely that the objective of substantially higher yields per man-hour/acre can be achieved without changing technology, especially as the land/labour ratio will be rising. It would be necessary to mechanize parts of agricultural work, especially those that are too demanding of labour at critical periods of the work flow. The importance of timing has not been sufficiently emphasized in the development literature on the question of investment criteria, choice of techniques and factor intensity. Land clearance for grains, for instance, may have to be under-

taken with more mechanical aids as, for example, the use of the bullock and plough in the North; or the services from a tractor and implement pool in rice and tobacco cultivation in the West. This is essential if output is to be increased substantially under conditions of a rising land/labour ratio and a set of ecological constraints on the time distribution of work-load. It is true that greater capital input will raise production costs and that the accounting method in government agencies grossly underestimates the real cost of mechanical operation. But such an objection presupposes that existing government agencies are themselves efficient; that the increased cost will not be covered by resulting increase in the producer's earnings; and that the growth effect on the national economy is necessarily better by employing non-mechanical methods. In any case, in economic analysis a change in technology means more than the mere introduction of mechanical gadgets. It can come from improved varieties of seeds and seedlings. It can come from improved organization for production—minimizing the time spent in supplementary activities that are not directly productive; sharing 'overhead' work by cooperation with neighbouring farmers in clearing or in the use of sprays or shellers. It can come through improved knowledge on the part of the producer about the technical conditions of his work and more effective input of farm extension services. It may even be one or more steps removed from direct production; for example through better storage facilities and a more efficient marketing system for selling what the farmer produces.

A third direction for our extended land-surplus model has relation to the changing internal terms of trade. Helleiner himself realizes that one way of increasing the aggregate income per man-hour of the farmer is to change his product mix so that his value productivity goes up. This gives us a link to the changing pattern of demand for agricultural products, as incomes and tastes are altered. The farmer is thus interested in relative prices; but there is no reason why he should confine his interest only to the relative prices of what he can produce. He will bring in also the relative prices of what he buys, including an evaluation of the labour-intensity of members of the farming family. The extent to which he will be sensitive to movements in his internal terms of trade depends not only on the magnitude of change but also on the available alternative work opportunities. A decline in internal terms of trade will begin to affect production incentives absolutely when the marginal effort in

terms of leisure sacrificed is greater than the value of the marginal physical product. But where the transfer earnings of the farmer are high, a fall in internal terms of trade will affect production incentive faster than when the transfer earnings are low. For this purpose, the relevant measure is not the actual or objective transfer earnings but the imagined incomes from possible alternative economic opportunities. It should be noted, for example, that for the school-leaver farmers, these perceived transfer earnings are high and production disincentive comes sooner with a declining internal terms of trade than for the peasant farmers. The implications of this are twofold. On the policy level, the greater resilience of the peasants should mean diverting more developmental resources to them within the agricultural programme. This would mean a considerable weakening, if not a complete reversal, of the present typical farm-settlement programme as it operates for example in the West. Investment in agriculture should be built around those who are economically and psychologically committed to the land. On the empirical level, it is indicative of the fact that the composition of urban unemployed labour has changed over the last decade towards more school-leavers.¹⁵

The increasing literacy content in the growing urban unemployment which has characterized the Nigerian economy since the last decade is of considerable interest to our subject-matter. First, the enormous and disproportionate expansion (that is, in relation to the absorptive capacity of the labour market) in primary school education in the country partly explains why labour in agriculture was becoming scarce in relation to cultivable land in some parts of Nigeria. This underpins the increasing relevance of the land-surplus model of agricultural development as time goes on. Second, it indicates why, simultaneously, general labour in the towns can still be conceived as being unlimited in supply to the industrial sector. Many migrant school-leavers who fail to secure better jobs in the cities do not return to their family farms; but this is often not because of agricultural land scarcity. After continuous or intermittent periods of being jobless, they take up, as they grow in years and physical stature, general low-skill jobs in the towns at the going institutional wage rate. Qualitatively, they are different from the rural labourers who are, in the labour-surplus model supposed to be surplus to agriculture and who, on their migration, carry their bundles of subsistence goods with them to the towns. But functionally they fulfil the same role. Outside the pockets of rural population pressure, they are not surplus to agriculture in the

sense of zero or negative marginal productivity; but they provide the industrial sector at the going wage rate with a labour supply which is unlimited within the range of feasible demand for their services. It is in this industrial sense that the labour-surplus model still has greater validity for Nigeria than Helleiner's analysis would suggest.

The final direction in which the land surplus model must therefore be extended is the grating of the labour-surplus *industrial* sector on to the land-surplus agricultural sector, for a more complete and more adequate theory of the development process. The main difference here from the exhaustive analysis of the problem by Ranis and Fei¹⁶ is that the direct link of the industrial labour force with the agricultural sector is broken at least in the short-run. In the Nigerian case of today, the unemployed urban general labourer is not only more literate, but any connection (in terms of potential employment absorption) that he may have in his mind with the agricultural sector is so tenuous that, analytically, it can be disregarded. This is important for the determination of Ranis and Fei's 'constant institutionally determined level of real wages' and its effect on the level of real wage in the industrial sector. The latter can now be lifted independently of changes in the institutional wage rate in agriculture, even while unlimited labour at the old rate still persists.

What Ranis and Fei assumed away as 'exogenous unnatural forces', in terms of advanced welfare legislation and union pressure, are in fact present in their essence in Nigeria. The concentration of political power in the urban sector ensures that movement in industrial wage rates can have a life of its own, even in the 'unorganized' or non-unionized sub-labour market. Increases in per capita consumption can come therefore not only from the 'normal' wage margin (Lewis' wage 'cliff' or 'hill') between the agricultural and industrial sectors, but also from an earlier upward lift (not necessarily the same as the rising turning point) in the industrial sector than Ranis and Fei envisaged. Their fear that the demand for industrial consumer goods may not increase at the rate envisioned by the application of Engel's law (consumers wanting, with successive income increases, relatively more industrial goods and relatively fewer agricultural goods) may therefore not be as serious in the Nigerian case. The argument for greater industrialization in Nigeria is thereby further strengthened.

Otherwise, we can follow Ranis and Fei the rest of the way in connection with the appropriate strategies for capital

formation and industrialization process. The agricultural surplus should be channelled into the industrial sector to finance a continuous expansion of the industrial capital stock. As much labour as possible should be reallocated from the agricultural to the industrial sector by gradually shifting the economy's centre of gravity from the former to the latter. Careful manipulation of technological change could supplement capital formation effort (domestic savings and external borrowing) in raising the marginal physical productivity of labour. Labour-biased innovations with high absorption intensity should be promoted so that, combined with the increase in net investment, the requirements of the critical minimum effort criterion would be met. In this way, the ostensible or latent conflict between the objective of maximum employment and the objective of maximum output could be resolved.

Reconstruction for Development

Such an approach provides a relevant and useful framework for decision-making in Nigeria, a fortiori under post-war conditions. Economic reconstruction is only meaningful if it will provide a better basis for long-run development. Its focus must therefore be on the more fundamental aspects of the development process. In the light of our discussion so far, a reconstruction programme of this type will have three interrelated parts. The first of this tripod base is minimization of the immediate bottlenecks to expansion of output. The second is the necessity to reform strategic economic policies and make them mutually consistent for the requirement of optimum growth. The third lies in the area of social communication and the improvement of economic organization for effective planned development. For good results, it is essential that proper measures are taken simultaneously on all these three fronts.

On the problem of relieving the development bottlenecks, there is no doubt that the enormous problem of reconstructing the economy's war-damaged productive capacity will command the most attention. It is difficult to estimate the number of men and the amount of physical assets lost in the civil war. Keeping figures of physical damages must have ranked rather low in the priorities of military field officers. And if they had managed to give the matter some attention, the reliability of their estimates may be far off the mark for any objective use. But from the scanty evidence available, the loss in productive assets is indeed considerable.

As at the end of 1968, the estimated loss in the stock of

capital assets in the public sector alone was of the order of £100 million in replacement cost. The major items involved were buildings, roads, bridges, vehicles and transport equipment. The transportation sector, especially road and rail, was the hardest hit. To this must be added at least another £10 million in the private sector, representing the cost of damages to oil installations, manufacturing plants and equipment, vehicles and buildings. By area, the greatest concentration of damage was in the Eastern States, followed by the Mid-West. By functions, the industrial sector was the worst affected. These figures still do not reflect the full loss to the economy. There were investment opportunities forgone. Then, too, there is the total direct financial cost of the civil war! The serious dislocation in economic activities meant a substantial loss of revenue to the government, to many public corporations (especially Ports, Railways, Electricity, Posts and Telegraphs) and to many industrial and commercial concerns which lost their markets. The Board of Customs and Excise alone suffered the hypothetical revenue loss of at least £100 million in the two years 1967 and 1968; the Ports Authority about £10 million; the Railway Corporation about £3 million and the Electricity Corporation about £1 million. Even where losses are not direct, greater strain is inevitably put on the productive capacity in the rest of the country; as for example when the railway traffic from and to Port Harcourt to the North-Eastern part of the country had to be re-routed through Lagos at higher operational costs and with greater pressure on Lagos port and the Western roads. The loss in human lives, including highly-skilled persons, is probably incalculable.

It is obviously impossible to replace all the physical damage in just one year. Many of them have high import requirements; and foreign exchange pressure is not likely to ease very quickly even with the dramatic revival of oil production.³⁷ Even for local costs, there are likely to be severe budgetary constraints in the immediate post-war years, as attention is concentrated on the more humane aspect of reconstruction. Resettlement and rehabilitation programmes are likely to exert a more successful pressure on public resource allocation in the determination of priorities in the early phase of the Reconstruction era. These programmes involve the politically sensitive problems of resettlement of soldiers, assistance to war victims, phasing out of refugee camps, supply of drugs for relief and rehabilitation both of wounded servicemen and distressed civilians.

But perhaps this has one potential side advantage. While

every effort needs to be made to get the economy back on its feet, considerable care must be exercised in replacing all damaged assets. These should not be undertaken indiscriminately. Because of their capacity-generating effects, they commit the future performance of the economy to a definite pattern. Not all damaged assets need be replaced; and those replaced may have to be different in scope, design, quality and cost. They may not even be replaced necessarily in the same location, or even in the same specific sector for that matter. A damaged railway steam locomotive may have to be replaced by a diesel engine, or perhaps by a better road service.

A tottering white-elephant industrial plant damaged by war action may not be an unmitigated curse. It may be good riddance for the future ability of the economy to generate greater surplus and grow faster. Regard must also be given to the fact that the war may have meanwhile stimulated alternative or complementary activities elsewhere in the economy, while the damaged asset remained dormant. The linkage effects of the replacement investments will therefore very likely differ from what they were previously. The crucial test for replacing damaged assets should thus be the likely net contribution to the growth of the national economy that the resulting total investment expenditure—survival plus addition—on the asset will make over its expected new life.

Therefore, since the bulk of the gross investment expenditure in the Reconstruction period will be absorbed by the need for capital replacement, net investment will be far less than otherwise. Even if the economy succeeded in raising the savings and investment rates, growth at the margin may be retarded by a decline in the net investment ratio.³⁸ This adverse effect on the development process may, however, be reduced by spreading the replacement component of total capital formation over a few years; by postponing some of them till even much later; and by abandoning some altogether. This means that in establishing priorities for the replacement of assets, the candidates for the earliest considerations must be those with the highest net investment value, shortest gestation period and greatest output potential. From a development standpoint, what needs to be replaced is not the asset itself but the function it performs in the national economy. This requires that thought also be given to any complementary factors (e.g. skilled manpower) which the replaced capital assets may require in order to make them operationally effective.

The bottlenecks to post-war economic revival are likely to be mitigated by two factors. Growth has now become

more dependent on domestic spending and government policy than on the export of agricultural produce. The end of the war will enable the large increase in money supply over recent years to be diverted to more productive purposes. In the external sector, continued expansion in mineral oil production and in import-substituting industries will gradually improve the balance of payments position and strengthen the country's foreign exchange reserve. The capacity for quick adaptation and response to increasing demand for their products which has been demonstrated by both agriculture and manufacturing means that the income multiplier effect of increased investment expenditure can work with greater effect than is generally supposed for typical underdeveloped economies of the Indian type. With a more objective, more carefully designed and more dynamic set of public policies, Nigeria has the chance to repeat the long-sustained post-war booms that other countries, which were victims of great wars over the past three decades, have demonstrated are feasible.

The needed reforms in economic policy in post-war Nigeria have many dimensions. Some of these have been mentioned in passing in our earlier discussions with respect to agricultural and industrial strategies. Some, like industrial location³⁹ or revenue allocation,⁴⁰ have formed the subject of recent reviews elsewhere. Others, like wages and incomes, are under current active consideration. What is needed in all these exercises is to subject all policy reviews to the same overall national objective and to ensure that the resulting reforms are mutually self-reinforcing in the pursuit of that objective. The inevitable framework for this is a new concept of planning that embraces the whole economy and is fitted to a long-term perspective of social change.⁴¹ This must call for a new form of planning organization for better social communication. Planning in post-war Nigeria must be a synthesis of 'planning for policy' and 'planning for resources'. As Ranis and Fei aptly remarked, 'such planning can neither afford to close its eyes to the heart of the developmental problem—the need to insure mass participation across the vast landscape of the less developed economy—nor can it afford to proceed exclusively on the basis of intuitive slogans or non-quantifiable and non-testable criteria.'⁴²

Even before the outbreak of civil war, the need for greater social involvement and for the related harmonizing of the people's efforts in the development process, was already being advocated.⁴³ Today, with the scars of war and incipient social alienation, these become doubly essential. Not only

would such an approach to development be cheaper and likely to mobilize a greater aggregate resource for development,⁴⁴ but it is the best way to link economic development with the dynamics of socio-political change. It is this kind of institutional transformation that can harness that unknown reserve of human endowment, will power, to the task of economic development. It is the starting point for getting the country on to a new basis of governmental legitimacy as well as for validating the socially lawful possession of political power to rule. Multi-ethnic and underdeveloped, Nigeria has provided a tragic example of the twin dangers which are always a threat in most African countries—degenerating ethnic relations and increasing frustration of social aspirations. The major task of post-war reconstruction is to organize for a development process which eliminates these inherent dangers.

REFERENCES

1. See, for example, the monumental work by Simon Kuznets in his series, of articles, 'Quantitative Aspects of the Economic Growth of Nations, *Economic Development and Cultural Change*, V, 1, Supplement to October 1956; V, 4, Supplement to July 1957; VII, 3, Supplement to April 1959; VIII, 4, Supplement to July 1960; IX, 4, Supplement to July 1961; X, 2, Supplement to January 1962; and XI, 2, Supplement to January 1963.
2. H. J. Habakkuk has in fact upheld Adam Smith's two-centuries old model of the growth mechanism as valid. See Prof. Habakkuk's article, 'The Historical Experience on the Basic Conditions of Economic Progress', in Leon H. Dupriez (ed.), *Economic Progress. Papers and Proceedings of a Round Table held by the International Economic Association* (Institut de Recherches Economiques et Sociales, Louvain 1955), 149-169.
3. W. Arthur Lewis, *The Theory of Economic Growth* (Allen & Unwin London, 1955), 5.
4. An excellent summary of this debate, and of the various attacks on 'Western' economic theories, is provided by H. Myint's article 'Economic Theory and the Under-developed Countries', *The Journal of Political Economy*, LXXIII, 5, (October 1965), 477-491. The 'realism' critics are typified by Dudley Seers in his article, 'The Limitations of the Special Case', *Bulletin of Oxford Institute of Economics and Statistics*, 25, 2, (May 1963). The 'relevance' critics are represented by Gunnar Myrdal in his book *Economic Theory and Under-developed Regions* (Gerald Duckworth, London, 1957), especially Chap. 8.
5. Myint, *op. cit.*, 488.
6. Myint, *ibid.*, 485.
7. W. Arthur Lewis, 'Economic Development with Unlimited Supplies of

- Labour', *Manchester School of Social and Economic Studies*, XXII 2, (May 1954).
8. W. Arthur Lewis, 'Economic Development with Unlimited Supplies of Labour—Further Notes', *Manchester School of Social and Economic Studies*, XXVI, 1, (January 1958)
 9. The two articles are (a) Gustav Ranis and John Fei, 'A Theory of Economic Development', *American Economic Review*, LI, 4, (September 1961); and (b) John Fei and Gustav Ranis, 'Innovation, Capital Accumulation and Economic Development', *American Economic Review*, LIII, 3, (June 1963).
 10. John Fei and Gustav Ranis, *Development of the Labour Surplus Economy: Theory and Policy* (Richard D. Irwin, Homewood, Illinois, for the Economic Growth Centre, Yale University, 1964).
 11. Myint, *op. cit.*, 489
 12. W. W. Rostow, 'The Take-off into Self-Sustained Growth', *Economic Journal*, LXXVI, (March 1956), and W. W. Rostow, *The Stages of Economic Growth* (Cambridge University Press, 1959)
 13. Gerald K. Helleiner, 'Typology in Development Theory: The Land Surplus Economy (Nigeria)', *Food Research Institute Studies*, Stanford University, VI, 2, (1966)
 14. Wolfgang F. Stolper, *Planning Without Facts: Lessons in Resource Allocation from Nigeria's Development* (Harvard University Press, Cambridge, Massachusetts, 1966), 18.
 15. I. G. Stewart and H. W. Ord (eds.), *African Primary Products and International Trade* (Edinburgh University Press, 1965), 52.
 16. Gerald K. Helleiner, 'Typology in Development Theory', *op. cit.*, 185.
 17. Helleiner, *ibid.*, 187.
 18. Gerald K. Helleiner, *Peasant Agriculture, Government and Economic Growth in Nigeria* (Richard D. Irwin, Homewood, Illinois, for the Economic Growth Centre, Yale University, 1966).
 19. *Ibid.*, 50-51.
 20. *op. cit.*, 190-192.
 21. Wolfgang F. Stolper, *Planning Without Facts*, *op. cit.*, 92-103; Gerald K. Helleiner, *Peasant Agriculture, Government and Economic Growth in Nigeria*, *op. cit.*, 25-43, and O. Aboyade, 'The Economy of Nigeria' in P. Robson & D. Lury (eds.), *The Economy of Africa* (Allen & Unwin, London, 1968), 135-147.
 22. W. Arthur Lewis, *Reflections on Nigerian Growth* (Development Centre of the O.E.C.D., Paris, 1967), 10-13.
 23. O. Aboyade, *Foundations of an African Economy: A Study of Investment and Growth in Nigeria* (Praeger, New York, 1966), 15-25 and Chap. 4.
 24. Wolfgang F. Stolper, *Planning Without Facts*, *op. cit.*, 103.
 25. W. Arthur Lewis, 'Real Output, 1950-1957', mimeographed seminar paper, (Department of Economics, University of Ibadan, November 1966).

26. O. Aboyade, *Foundations of an African Economy, op. cit.*, 92-96.
27. I. I. U. Eke, 'The Nigerian Accounts— a Critical Appraisal', *Nigerian Journal of Economic and Social Studies*, 8, 3, (November 1966), 357.
28. H. M. A. Onitiri, 'Recent Trends in Nigeria's Balance of Payments', *Nigerian Journal of Economic and Social Studies*, 7, 2, (July 1965).
29. E. E. Ebiefie, 'The Determinants of Money Supply in Nigeria, 1960-66', (University of Ibadan M Sc. (Econ.) thesis, 1968).
30. Clive S. Gray, 'Credit Creation for Nigerian's Economic Development', *Nigerian Journal of Economic and Social Studies*, 7, 3, (November 1965). Fitting the Nigerian data to the Polak model, Gray demonstrated that injections of money into the income stream were generating imports of nearly equal value within a few years.
31. Kathleen M. Langley, 'The External Resource Factor in Nigerian Economic Development', *Nigerian Journal of Economic and Social Studies*, 10, 2, (July 1968).
32. A. A. Ayida, 'Contractor Finance and Supplier Credit in Economic Growth', *Nigerian Journal of Economic and Social Studies*, 7, 2, (July 1965).
33. Egon Vietrose, 'Import and Export Substitution in Nigeria', *Nigerian Journal of Economic and Social Studies*, 10, 2, (July 1968).
34. Gerald K. Helleiner, 'Typology in Development Theory', *op. cit.*, 185.
35. For a close analysis of the dimensions and characteristics of the employment problem of school leavers, see Archibald Callaway, 'Education and the Rise of Youth Unemployment', in P. C. Lloyd, A. L. Mabogunje, and B. Awe, (eds.), *The City of Ibadan* (Cambridge University Press, 1966). For the purpose of this paper, Dr. Callaway has kindly supplied the following interpretative note: 'From a sample household survey, the following facts were established. One-quarter (28 per cent) of the total male labour force were unemployed. That is, they had not earned sufficient during the previous nine months, in money or in kind, to cover personal food costs, so far as this fact could be established from close enquiry about sources of income and support. Of these male unemployed, three-quarters (78 per cent) were school leavers whose median age was 19. Thus, for the city of Ibadan as a whole there were at least 20,000 young men who had completed six to nine or more years of formal schooling but who were uncommitted to productive work of any kind. These jobless youths belonged to families of Ibadan province origin, had migrated from other parts of the West, and from elsewhere in the Federation. Some of these school leavers will settle for apprentice attachments to masters in trading, crafts and small industries, small-scale transport enterprise, either in their area of origin or in townships or cities where relatives live. But the backlog of jobless youth, with varying amounts of formal schooling, persists'.
36. John Fei and Gustav Ranis, *Development of the Labour Surplus Economy: Theory and Policy, op. cit.*, Chaps. 4 and 5.
37. For an analysis of the exaggerated importance of foreign exchange contribution attributed to petroleum in the country's trade statistics,

- see Kathleen M. Langley, *The External Resource Factor in Nigerian Economic Development*, *op. cit.*, 155 and 160-162.
38. The basis of the need to distinguish between normal and abnormal depreciation can thus be understood, given war conditions. See Solomon Fabricant, *Capital Consumption and Adjustment* (National Bureau of Economic Research, New York, 1938). But although the problem is serious under war conditions, there is little doubt that for a developing country, the concept of scrapping (or one-horse chaise) is the most appropriate for the measure of net investment in social accounting. For an example of the sensitivity of the analysis of the growth of income and capital stock to the choice of depreciation accounting method, see Helen Stone Tice, 'Depreciation, Obsolescence, and the Measurement of the Aggregate Capital Stock of the United States, 1900-1962', *The Review of Income and Wealth*, Series 3, No. 2, (June 1967.)
 39. O. Aboyade, 'Industrial Location and Development Policy: The Nigerian Case', *Nigerian Journal of Economic and Social Studies*, 10, 3, (November 1968).
 40. Federal Republic of Nigeria, *Report of the Interim Revenue Allocation Review Committee* (Nigerian National Press, Apapa, 1969).
 41. An elaboration of this is provided by J. G. Zielinski, *On the Theory of Socialist Planning* (Oxford University Press, for the Nigerian Institute of Social and Economic Research, Ibadan, 1968), especially lectures 1, 7 and 8.
 42. John Fei and Gustav Ranis, *Development of the Labour Surplus Economy: Theory and Policy*, *op. cit.*, 199.
 43. O. Aboyade, 'Relations Between Central and Local Institutions in the Development Process', in Arnold Rivkin (ed.), *Nations by Design* (Anchor Books, Doubleday, New York, 1968), 83-118.
 44. W. Arthur Lewis, for example, stressed this aspect, when he wrote: 'If decentralization were in vogue, the village could be told that it can have as much water or electricity, or as many roads as it is willing to pay for out of village taxes; and the principle of "free" supply would not then give rise to such unlimited demands . . . The public's demand for service grossly exceeds the willingness to pay taxes. Installing services in some places merely inflames the demand in others'. W. Arthur Lewis, 'Planning Public Expenditure', in Max F. Millikan (ed.), *National Economic Planning* (National Bureau of Economic Research, New York, 1967), 206-207.

Comments on Professor Aboyade's paper: 1

Wolfgang Stolper

University of Michigan.

Professor Aboyade does four things in his paper. He first discusses briefly those growth theories that have emerged from Sir Arthur Lewis' pioneering efforts, including the work of Ranis and Fei, and of Helleiner. Second, he discusses in some detail the performance of the Nigerian economy up to and during the civil war. Third, he suggests the manner in which the previously discussed theory might be modified to provide a more adequate basis for policy prescriptions. And, fourth, he suggests policies for the reconstruction period and the further development of the Nigerian economy.

Since the conference has a very practical aim I will restrict my comments on his discussion of the past performance of the economy only to those points that may possibly have a bearing for future policy making. My comments do not necessarily imply disagreement.

Past Performance

Much has been made of the question whether or not the Nigerian economy slowed down in the late fifties. The statistics are clearly too uncertain to be sure, and I do not wish to contribute to the discussion along those lines.

Professor Aboyade quotes me as stressing the need to pay more attention to the composition of investments, and warning that the Nigerian economy was in danger of requiring larger and larger investment ratios only to reach a plateau of income. I tried to stress that simply spending more and more on non-consumption items was not really what economists had in mind when they urged a greater savings and investment effort. I am sure that Mr. Omaboe will agree with this point. I see no reason to doubt that in many countries which have shown adequate short-term growth we have seen a multiplier rather than a growth effect. Social profitability remains the major criterion for investments.

I am happy to note Professor Aboyade's basic agreement. The performance of the Nigerian economy was actually quite good. But I should like to stress another analytical point here. The syndrome of a bad policy is, I believe, a major savings and

(domestic) investment effort which leads indeed, via the multiplier, to increased growth rates over a few years. But if in the absence of changes outside the control of the policy maker the policy and the spending pattern has been good, foreign reserves would not fall below the level deliberately decided upon; budgetary deficits would not rise, and savings ratios would increase. For, growth means surely an increase in productive capacity, hence an increase in taxable capacity and revenues, even without changes in tax rates. And the greater availability of resources means surely that, other things being equal, the balance of payments position and the savings ratio must at least not deteriorate. Adequate 'growth' of GNP over a few years that requires increasing investment ratios to sustain it, that leads to budgetary and balance of payments troubles, and to a failure of savings ratios to increase without additional tax measures, is a prima facie sign of bad policies and a misallocation of resources. Of course, increasing savings and investment ratios may be desirable, but only if they lead to increased growth.

Where I might possibly be less sanguine than Professor Aboyade is to see, a sign of good policy in the very rapid growth of manufacturing and in the decreasing relative importance of agriculture—this depends on whether agriculture grew vigorously or not, whether exports were maintained or not. If exports grew, and agriculture developed, and if industry grew even more, the structural transformation would be a healthy one. If not, this may yet be the case, but it is not necessarily certain.

For the foreseeable future, agriculture provides the major outlet for employment and the major source of foreign exchange, followed increasingly by oil revenues. Taxation of the export sector changes the relative remuneration in urban employment and rural pursuits. You cannot solve the unemployment problem by taxing export products more and more in order to find investible funds for the urban areas, unless the return there is at least as high. And people will, of course, flood to the cities. At the same time you must maintain adequate import possibilities to maintain freedom of domestic monetary and fiscal policy, which in turn means maintenance and expansion of exports. Even the United States is finding this out.

Professor Aboyade discusses the paradox of urban unemployment and abundant supply of land in terms of the supply of school leavers. But there is no reason why educated people can not make better farmers if farming is made

sufficiently profitable for them. I am not impressed by such arguments (not made by Professor Aboyade, of course) that city life is so much nicer etc. Of course it is. But if the farming community is allowed to prosper it can afford water, electricity, the cinema, the transistor radio, the products of industry and the rest. You will not solve all problems of urbanization that way. But you *can* make farm life bearable and urbanization problems manageable.

I have mentioned these points mainly to stress that I agree with Professor Aboyade who sees the development process essentially as a process of continuously changing the allocation of all resources for all purposes. My impression is that on balance, and despite the civil war, the economy remains basically strong and policy has been good.

The Development Process

I would agree that all of Professor Aboyade's suggested extensions to the Helleiner model are essential. The idea that there was no technical change, that agricultural output per man or per acre has remained constant over long periods because of 'traditional' attitudes, is manifestly inconsistent with some facts: the very introduction of cocoa and its development by 'traditional' farmers is a major change in production functions. For other crops, too, the 'orthodox' view may not be adequate.

But I prefer to make my comments along other lines. A theory can do different things. It can give a good explanation ex post of past developments and it can fit (or more frequently, alas, be made to fit) such data as are available. Or it can be 'operational' in the sense that it leads to policy prescriptions, not merely in the sense that we would like to achieve a certain rate of growth or see the structure of the economy change in a certain way, but in the sense that it gives the policy maker some idea of what he should do next.

Now theories of unlimited supplies of labour or of land do not and cannot do this and were not really intended to do this. Chenery's approach of a two (now three) gap model does better for certain limited purposes; mainly, I suspect, to help with the determination of the size and duration of aid requirements. Professor Aboyade's suggestions on 'Reconstruction for Development' make many points with which I am virtually in complete agreement, but they do not seem to me to follow necessarily from the model he sketched out in his section on 'The Theoretical Frame for Growth of the Economy.' His suggestions, all of which are valid, are

intended to introduce more realism into the assumptions made in the model, but they are not couched in sufficiently operational terms.

I wish to outline such an operational scheme, bearing in mind that no matter what anyone says, the future is largely unknowable, and that we do not often know exactly where we are. At best, statistics inevitably become available with a lag. At best, policy and plans are inevitably made with dated information. At worst, there is complete ignorance. From which it seems to me to follow that the chief aim of the transformation of any society must be (1) to make increasing amounts of resources available that can be allocated for *all* purposes, economic and otherwise; and (2) to increase the flexibility of the economy so that it can (3) make increasingly more and better decisions (economic and otherwise), and (4) can adapt itself better and better to such changes which are either unforeseeable or beyond the control of the economy. *Increasing the productivity of an economy must be the central aim of policy. All other aims are achievable only to the extent to which this overriding aim can be achieved.*

It is not within my competence or prerogative to talk politics. I recognize their importance; I happen to be a strong federalist and this implies an indissoluble union; it is obvious that economic transformation must aid political cohesion and must not introduce such strains into the country as to threaten to blow it up. The ends of economic development are non-economic. But political ends require economic means, and an economically indefensible allocation of resources will make the achievement of political aims impossible. To go beyond this general statement seems to be presumptuous for an outsider at this conference.

Now economic transformation unfortunately requires investments; unfortunately, because investments are cost and hence to be minimized. It also requires policies to make sure that the investment will come about in sufficient size (but not more), with sufficient efficiency, and with a proper distribution among various branches of the economy. Let me stress, however, that to see the problems merely or even primarily as one of the size and composition of investments is completely inadequate. The problem is one of resource allocation as a whole.

Now, if you ask: what are the specific points at which the policy maker can influence that allocation, you come up first, and most importantly, with proper policies. I'll lay a bet that more than once during this conference there will be

complete agreement on the importance of increasing agricultural output; but that this will be seen mainly as a problem of technical change, of increasing and changing factor inputs or of ensuring international price stabilization of raw materials; and that this will be followed by yet another plea that the economy cannot be transformed without additional resources which requires taxing farmers even further. I am not necessarily advocating the abolition of taxation of farmers or even of export crops. Farmers are citizens and should pay their share of taxes. I am saying that the best technical programs in the world can be, and are often undone by policies inconsistent with achieving the aims of the programs. Export promotion schemes combined with overvalued exchange rates is another and entirely different example that is all too frequently found.

Given the primary importance of good and consistent policies, the specific points of entry by the policy maker into the economic process are, first, the individual projects, investments and otherwise; second, the budget in the sense of the public sector as a whole; and third, the balance of payments.

'Investments' itself is an ambiguous term. It will not do to treat it simply as non-consumption spending. We deal here essentially with a series of inputs over time producing lagged outputs over time. Statistically they are conventionally and unavoidably valued at their cost, i.e. by the inputs required. Economically their value is the discounted value of the output streams. Hence the overriding importance of finding some way to insure social profitability. Without insuring social profitability, you are in danger of maximizing inputs rather than outputs. As one of my colleagues pointed out to me: you could have avoided a lot of trouble if you had talked about net output rather than profitability.

There is, of course, the problem of keeping the total level of resource use within the limits of resource availability. However, there is a further problem which arises from the fact that 'investment' really refers to two essentially different things. There are on the one hand steel or textile mills; there are on the other hand schools, hospitals and administrative buildings, and to some extent roads.

The characteristics of the steel-mill type of investment is that it is clearly within the economic nexus both on the cost and the demand side. To be sure there are difficulties in valuation of inputs and outputs, but on principle they must be valued economically. (I do not wish to enter here into the

problems of shadow pricing, finding the proper discount rate etc.) Moreover, as a rule, operating costs are internalized. Roads are on principle subject to the same economic calculus though there are some factors that enter into decisions to build roads which make for demands for different economic reasons, such as the desire to improve international communication. At the other extreme are hospitals, say, which are clearly and unequivocally linked to the economic nexus on the cost side, but the demand for which, while it *could* be linked to it, is not so linked as a rule, and should not be so linked in my opinion. Moreover, as a rule, costs are not internalized.

Now it may be readily admitted that schools or hospitals *could* be run on strict profitability principles while steel mills *could* be run as a social service. I do not believe, however, that you will find many defenders for this way of doing business. You will find, and most properly so, that neither consideration can be entirely absent in either type of investment.

The point, however, which I wish to stress is that decisions about investments in factories or roads are on principle made differently from decisions on schools or hospitals. This is not equivalent to a distinction between private or government ownership, nor to a denial of a control through, say, social or industrial legislation. Steel mills are run in Russia on the same principle as those in the United States. I have, in America, met many visitors from socialist countries trying to obtain technical aid for operations research, management training, etc. Investments in mills, and so forth, must be made on principle so that they produce a net output.

On the other hand, Harvard, which is a private university, or the University of Michigan which is public, or, as far as I can judge, a Russian academy, are also run in pretty much the same way. Science policy, to judge from two articles in *Minerva* by the great Peter Kapitza, is made in much the same way in Russia as in the United States. Efficiencies may or may not vary depending on Government or private execution, depending less so on government or private ownership, but the principles remain the same in either case.

Since, however, investment decisions on schools or hospitals are costly, we must find a means to limit demand. This brings me to the second point of entry, the budgetary process. Because education or health are usually provided by Government, recurrent budgets are affected. This in turn immediately and seriously affects both aggregate savings and savings ratios. The argument does not, however, depend on

Government rather than private activity. The budget is a most important means of affecting not only Government but also private savings ratios, and private behaviour in general. I am now concerned with the allocative functions of the budget more than with the aggregate spending (i.e. monetary or fiscal policy) or the equity functions, though I give both high importance.

The Government affects the allocation of resources through policies and both its taxing and spending patterns. Involved here are not only streams that go for direct productive investment but also particularly for schools and hospitals, etc. which reflect basically the ends of development. The budget and budgetary policy become the focal point where decisions on *all* resource allocations are made, where the conflicts among competing claims on resources are ultimately resolved. Here it becomes important to use it to determine whether and when steel mill-type investments will eventually raise net output, hence taxable capacity; or whether operating subsidies will cut into savings and diminish the potential resources for social and educational programs; whether operating subsidies to create employment in specific plants do not interfere with the creation of employment elsewhere in the economy by reducing the available investible funds; and here it will become manifest whether school-type investment will dangerously cut into savings ratios. As Arthur Lewis put it (and I quote from memory): 'There is a lot you can do with a budget surplus even without a plan'. 'There is nothing you can do without a surplus even with the most beautiful plan'. Or as I have put it in another context: it doesn't make sense to spend so much on education that you have nothing left to employ the educated!

I must stress here that not only is it essential to get a picture of the public sector as a whole and not merely of what in many countries more or less accidentally finds its way into something called 'The Budget.' The economic budget of the nation must be balanced except for a foreign contribution. The combined capital and recurrent budget of the public sector may show a deficit or surplus, depending on considerations of a Keynesian type. The recurrent budget must have a healthy surplus if the public sector is to be a contributor to capital formation. And I stress that it is theoretically unsound and politically dangerous to treat the resource raising and the resource using sides independently of each other. To put it bluntly: don't raise taxes unless you have an economically sensible and politically acceptable way to spend the money.

The third point of entry is the balance of payment. The ability to import remains the crucial and frequently limiting variable in many countries. Since you cannot print other people's money, you must earn, or borrow it, or get it as a gift. The bulk of foreign exchange requirements must obviously be earned. Import substitution is likely to be self-defeating, certainly in terms of growth and frequently even in terms of foreign exchange savings, unless it is economically efficient. By now this is a well established and reasonably well understood point. I simply refer to the work of Harry Johnson. I note from Professor Aboyade's paper with relief, that policy in this respect seems to have been on the whole sensible in Nigeria.

Thus my model of a developing economy and of the development process tries to avoid the oversimplification inherent in the assumption of two factors. There is after all no such factor as land; cocoa land and groundnut land are very different; people differ; there are many inputs both original and intermediate. Similarly does my model try to avoid the over-simplifications of fixed factor proportions, or fixed coefficient, or of such basically non-operational concepts as capital—output or capital—labour ratios.

Instead I start with the proposition that any economy that is, as the Nigerian economy is, a going concern, has a certain amount of resources of many descriptions available. Some resources are already committed and you can do nothing about that. Their output, if any, will become available only at a later date. Others are available for allocation now. They must be allocated for all purposes so as to increase both the availability of resources and the flexibility of the economy. This involves essentially two different types of decisions with very different implications on budget and balance of payments and savings ratios, and which I have schematized as steel mill-type and school-type investment decisions. The limitations on what can be done and hence on the parameters of the model are partly political, partly economic and depend to a great extent on the point of departure. Planners cannot assume arbitrarily where they start to plan.

Because relations are very complicated, no simple model exists that can take care of all the interactions which I have tried to sketch. I speak with confidence since I have unsuccessfully involved some of my brilliant, mathematically trained colleagues in attempts to solve this problem and to construct such a model. However, our attempts have not thus far been successful. Those of you who knew me in the old days know

that I literally worked nights through to work out the implications of problems of the many project proposals, and to make adjustments back and forth to get them into consistent and defensible patterns that would not cause trouble elsewhere in the economy or later when I was gone—after all, a responsible economic adviser should not be in the hit-and-run business. Computers can do such iterative work infinitely faster, *provided* they are told precisely what to calculate or to simulate. But computers are logical idiots who know *only* what you tell them and will do what they are told to do with ruthless rationality.

But my point in the context of Professor Aboyade's paper is not to talk planning techniques or tell of my troubles in constructing an adequate model, but to suggest an alternative view of the development process, which on the one hand is much more complicated than is customary, but which puts resource mobilization and allocation, seen as a unit, into the center of the process and which thus seems to me to have the inestimable advantage of being couched in decision-making terms. I am also happy to note that my remarks are consistent with Professor Robinson's important contribution at our opening session.

CRED Reprint Series

- *No. 15. "Some Implications of Postwar Primary-Product Trends" by Richard C. Porter. (*The Journal of Political Economy*, Vol. 78, No. 3, May-June 1970, pp. 586-597)
- No. 16. "Measuring the Effects of German Budget Policies, 1955-65" by Wayne W. Snyder. (*Weltwirtschaftliches Archiv*, Vol. 104, No. 2, 1970, pp. 302-324)
- No. 17. "Politics, Privilege and Progress in Liberia—A Review Article" by Elliot J. Berg. (*Liberian Studies Journal*, Vol. II, No. 2, 1970, pp. 175-183)
- *No. 18. "Terminal-Year Investment in Finite-Horizon Planning Models" by Richard C. Porter. (*Pakistan Development Review*, Summer, 1970, pp. 272-280)
- *No. 19. "Measuring the Stabilizing Effects of Social Security Programs in 7 Countries, 1955-65" by Wayne W. Snyder. (*National Tax Journal*, September 1970, pp. 263-273)
- No. 20. "Measuring Economic Stabilization: 1955-65" by Wayne W. Snyder. (*The American Economic Review*, December 1970, pp. 924-933)
- *No. 21. "Further Comment on the Kilby/Weeks Debate: An Empirical Rejoinder" by John F. Weeks. (*The Journal of Developing Areas*, January 1971, pp. 165-174)
- No. 22. "Structural Transformation versus Gradualism: Recent Economic Development in Ghana and the Ivory Coast" by Elliot J. Berg. (*Ghana and the Ivory Coast: Perspectives of Modernization*, edited by Philip Foster and Aristide R. Zolberg. Published by University of Chicago Press, 1971, pp. 187-230)
- No. 23. "Budget, Economic Policy, and Economic Performance in Underdeveloped Countries" by Wolfgang F. Stolper. (*Kieler Vorträge*, Neue Folge 69, 1971, 33 pp.)
- No. 24. "Limitations of Comprehensive Planning in the Face of Comprehensive Uncertainty: Crisis of Planning or Crisis of Planners?" by Wolfgang F. Stolper. (*Weltwirtschaftliches Archiv*, Vol. 107, No. 1, 1971, pp. 1-32)
- *No. 25. "Managing Money and Credit in a Developing Economy" by Wayne W. Snyder. (*Malayan Economic Review*, Vol. XVI, No. 1, April 1971, pp. 1-12)
- *No. 26. "The Control of Annual Plans: The Experience of Tunisia" by J. G. Kleve. (*Journal of Modern Africa Studies*, Cambridge University Press, Vol. 9, No. 2, August 1971, pp. 306-310)
- No. 27. "The Rediscovery of Exports by the Third World" by Richard C. Porter and Charles P. Staelin. (*Foreign Trade Review*, January-March 1972, pp. 523-539)
- No. 28. "Budget Policy and Economic Stability in Postwar Japan" by Wayne Snyder and Tsutomu Tanaka. (*International Economic Review*, Vol. 13, No. 1, February 1972, pp. 85-110)

CRED Reprint Series

- No. 29. "The Cost of Tying Aid: A Method and Some Colombian Estimates" by Thomas L. Hutcheson and Richard C. Porter. (*Princeton Studies in International Finance*, No. 30, March 1972, 53 pp.)
- No. 30. "The Development Process" by O. Aboyade, and "Comments on Professor Aboyade's Paper" by Wolfgang F. Stolper. (*Reconstruction and Development in Nigeria* edited by A. A. Ayida and H. M. A. Onitiri. Published by the Nigerian Institute of Social and Economic Research, 1971, pp. 34-80)

* out of print