INTRODUCTION

This study is an analysis of the process of industrialization in Nigeria over the period 1945–66. Within the framework of a fairly comprehensive historical treatment of the subject, certain aspects of the industrialization process are selected for intensive exploration. In several areas, on the basis both of the Nigerian findings and corroborative evidence from other countries, alternative interpretations of the observed phenomena are offered in lieu of the propositions of conventional development theory.

The book is divided into six parts. The first two chapters provide a brief sketch of the overall structure of the Nigerian economy and an analysis of the market environment in which nascent industrial development has taken place. Parts 2 and 3 treat industries based upon import replacement and domestic raw materials respectively. There is a break after Part 3 where the focus shifts from industrial production to a scrutiny of domestic factor inputs, with particular attention given to the institutions which determine the quality of the human resources – labour, management and entrepreneurship. The concluding chapter, part summary and part speculative, attempts to isolate the key problems of the industrialization process and to suggest an optimum development strategy.

The characterization of Nigeria in the title of this study as an open economy summarizes a number of important features of the socio-economic environment during the period under consideration. By following a conservative monetary policy and avoiding foreign exchange restrictions, Nigeria has remained open to international trade to an unusual degree. Beyond the immediate gains from international specialization (exports constitute nearly a fifth of national product), relatively free trade has meant that Nigeria's internal price structure has been fairly closely related to world prices[1] – bringing efficiency in domestic resource allocation and the avoidance of high rates of inflation. Free entry to foreign capital, foreign entrepreneurship and foreign technical skills has been of central importance to industrial development. So too has the absence of extensive state intervention contributed to an open, market-orientated economy. A similar openness and mobility based on achievement has obtained in the modernized segments of Nigerian society. Whether in politics, commerce, administration or the professions, all careers have been open to talent with few

[1] Nigeria's *ad valorem* import duty level has ranged between 20 and 30 %, as compared to implicit tariff levels of 200 % and over for most Latin American and Asian countries.

impediments to upward progress. Taken together these various forms of openness and free mobility, which differentiate Nigeria from many other underdeveloped countries, have exerted a profound influence on the course of economic development in the two decades following World War II.

Every empirical investigation of any rigour that covers a wide field must, perforce, be selective. Hence it is apposite that the investigator declare the values, prejudices and predispositions which have influenced him in the choice of areas to be examined and in questions posed. In the present case, the viewpoint which has influenced the selection of subjects and animated the analysis may be described as a concern with organization and technical efficiency.

The process of economic growth can be broken down into three components: (*a*) factors determining the volume of resources available for expanding the economy's productive capacity, (*b*) the allocation of these investment resources among possible uses, and (*c*) the efficiency with which the factors of production are combined in the given lines of production. By and large economists have concentrated on (*a*) and (*b*), giving only passing attention to questions of non-allocative efficiency. However, changes in the latter affect average productivity while variation in the investment-GNP ratio and shifts in resource allocation involve only incremental changes at the margin of production.[1] If organizational slack and technical inefficiency are both substantial and capable of manipulation, then it is likely that attention paid to this area will yield far greater returns in accelerating economic growth than further intensification of effort to increase aggregate investment or improve resource allocation. Accordingly, the problem of moving from actual performance to a point closer to the existing production possibility frontier, as determined by current levels of technology and capital accumulation, is given particular emphasis throughout this study.[2]

Although economic development is part of an interdependent process of social change, disciplinary competence and the sheer quality of economic facts to be analysed have combined to limit the present study

[1] Consider a simple example. Assume that industrial output is 100, that the capital-output ratio is 2, and that net investment is zero. An expenditure of 5 on additional capital equipment will raise output by $2\frac{1}{2}$; if the same expenditure on industrial engineering services and supervisory training only raises average productivity by 3 % (and the evidence is that the improvement is much greater) it represents a superior use of resources. While the potential for such gains is exhausted at some point, it is a limitation that most underdeveloped countries need not concern themselves with for some time.

[2] The formulation presented here was first developed by the writer in 'Organization and Productivity in Backward Economies', *Quarterly Journal of Economics*, May 1962. Harvey Leibestein has attempted to extend and elaborate this notion in 'Allocative Efficiency versus "X-Efficiency",' *American Economic Review*, June 1966.

to purely economic phenomena.[1] Beyond general sociological considerations, the most important exogenous factor impinging upon economic outcomes is their political and administrative context. Fortunately an excellent synthesis of the political sociology of Nigerian economic policy and governmental administration has recently been made by Father James O'Connell.[2] The motivation and quality of political leadership, the nature of the colonial inheritance, the operation of the civil service, and all the non-economic considerations affecting economic decision-making in the public sector – traditionalistic attitudes, communal loyalties, regionalism, corruption – are expertly analysed in Professor O'Connell's essay reprinted as appendix D.

A few remarks are in order on the subject of Nigerian political history. Formally annexed as a colony in 1900, it was granted internal self-government in 1951, at which time Nigerians took up all but a few of the ministerial portfolios. Complete independence was obtained in October 1960. In January 1966 parliamentary government was ended by a military coup; a second coup followed in July, accompanied by the tragic killings of several thousand Ibos in the northern region. In mid-1967 civil war erupted. At the time of writing, Nigeria's future as a politically unified country is still unclear. Although the study does not extend beyond 1966, any examination of development sequences by its very nature involves analysis of past performance in terms of its implications for the future. Thus the study contains many policy prescriptions which are founded on the premise that the basic geographic and institutional facts of the past will hold for the future.

For all but the last three years of the period being reviewed Nigeria was divided into three regions and the federal territory of Lagos. Each of the regions was composed of one dominant tribe (Yoruba in the west, Ibo in the east, Hausa in the north), constituting about 65 % of the region's population, with a number of smaller tribes making up the balance. Political parties were tribally based so that the regional governments were controlled by the dominant tribe, with the opposition party in each region representing the minority tribes. Each of these minority parties was allied to the dominant party in one of the two other regions. In 1963 a new region, Mid-Western Nigeria, was created

[1] The best historical and political treatment of twentieth-century Nigeria is James S. Coleman, *Nigeria: Background to Nationalism*, Los Angeles 1958; for the pre-colonial period see Michael Crowder, *A Short History of Nigeria*, 2nd ed., New York 1966. Major economic works on Nigeria covering the period 1920 to 1950 are Margery Perham, ed., *The Economics of a Tropical Dependency*, 2 vols., London, 1948; and P. T. Bauer, *West African Trade*, Cambridge, 1954. A work which complements the present study is G. K. Helleiner *Peasant Agriculture, Government and Economic Growth in Nigeria*, Homewood, Ill. 1966.

[2] J. O'Connell, 'The Political Class and Economic Growth', *Nigerian Journal of Economic and Social Studies*, vol. 8, March 1966, pp. 129–40.

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out of the eastern provinces of Western Nigeria. Unless otherwise indicated, for purposes of continuity the new region will be treated as part of Western Nigeria. Until the end of 1964 the Federal Government was controlled by an alliance of the Hausa and Ibo-based parties. After the elections of December of that year the Northern Peoples' Congress held a majority of seats in the Federal Parliament.

Lastly, the population census of 1952–3 (compounded at 2 % per annum)[1] has been selected as the source for demographic data in preference to the more recent but politically embattled census of 1963. The difference between these two censuses is considerable: applying a 2 % growth figure to the 1952–3 total, Nigeria's population in 1963 was 37·1m. as compared to the officially reported count in that year of 55·6m. The choice between the two is clearly a momentous one; however, it is the opinion of most observers, including the writer, that the earlier count was the more reliable of the two.[2]

[1] This is the rate traditionally employed by the Federal Office of Statistics and is consonant with the sample survey findings in the mid-1950s of a 50 % infant (under 5 years) mortality rate.

[2] The 1952–3 census was carried out under tranquil conditions and was supervised by European administrative officers who judged their margin of error to be in the neighbourhood of 5 %. The censuses of 1962 (nullified) and 1963 were carried out under conditions of considerable political tension, where the pressure to inflate figures for purposes of parliamentary representation and control of the federal government was very great. The 1962 census was nullified for just this reason, and yet the 1963 results were virtually the same. The 1963 enumeration was carried out by Nigerians, a number of whom, including the chief census officer, resigned in protest against irregularities. Two major political parties and the Eastern Nigeria Government did not accept the census. Finally, on the basis of *per capita* consumption of such items as textiles, salt, cigarettes and beer (the total consumption of which is known) the 55·6m. would rank Nigeria far below any other country in Africa, many of whom have considerably lower reported *per capita* incomes.

A recent estimate by I. I. U. Eke based upon voter registration and the 1952 age structure of the population, places the 1963 figure at 41·3m. 'Population of Nigeria: 1952–1965', *Nigerian Journal of Economic and Social Studies*, vol. 8, July 1966, pp. 289–310.

Part 1

CHAPTER I

GROWTH OF THE NIGERIAN ECONOMY 1900–1966

In 1900 when the British Government took over from the Royal Niger Company the jurisdiction and administration of the Niger basin, the 373,250 square miles that would in 1914 be called Nigeria, comprised thousands of largely self-sufficient communities engaged in the traditional production of food, clothing and utensils. Exports in 1900 were £1·7m., of which palm oil and palm kernels (purchased by European traders operating in the coastal 'oil rivers') constituted about 90 %.

With the establishment of law and order by the colonial administration, the development of a communications network and the presence of intermediary European traders, the Nigerian economy underwent a process of integration both internally and with the world economy. New export crops were introduced – groundnuts, cotton, rubber, cocoa – and cassiterite (tin ore) and coal deposits were uncovered and exploited. While the colonial government gradually built up social and economic infrastructure, Christian missionaries shouldered the burden of primary and secondary education. This process of integration and 'economy formation' is most graphically seen in the growth of exports, Nigeria's leading sector.

Nigeria's rapid export expansion represents a classic instance of Hla Myint's 'vent for surplus'.[1] Owing to the fact that subsistence production did not fully employ all potential labour time and productive land, these surplus or under-employed resources were committed to the new export crops with no corresponding diminution of domestic production. Thus, unlike the conventional case where the factors of production are fully employed, imported consumer goods were gained at no cost save at the sacrifice of leisure. On the other hand, expanded production was achived without significantly altering traditional agricultural technology: productivity of employed resources remained more or less constant. But improved technology was embodied in the new crops and motor and rail transport; and greater specialization as between food and export crops occurred in the agricultural sector. Indeed, if we define the technology inhering in capital and intermediate goods as embodied technology and all other types of productivity-influencing factors as disembodied technology, we are likely to find that the former

[1] Hla Myint, 'The Classical Theory of International Trade and the Underdeveloped Countries', *Economic Journal*, June 1958, pp. 317–37.

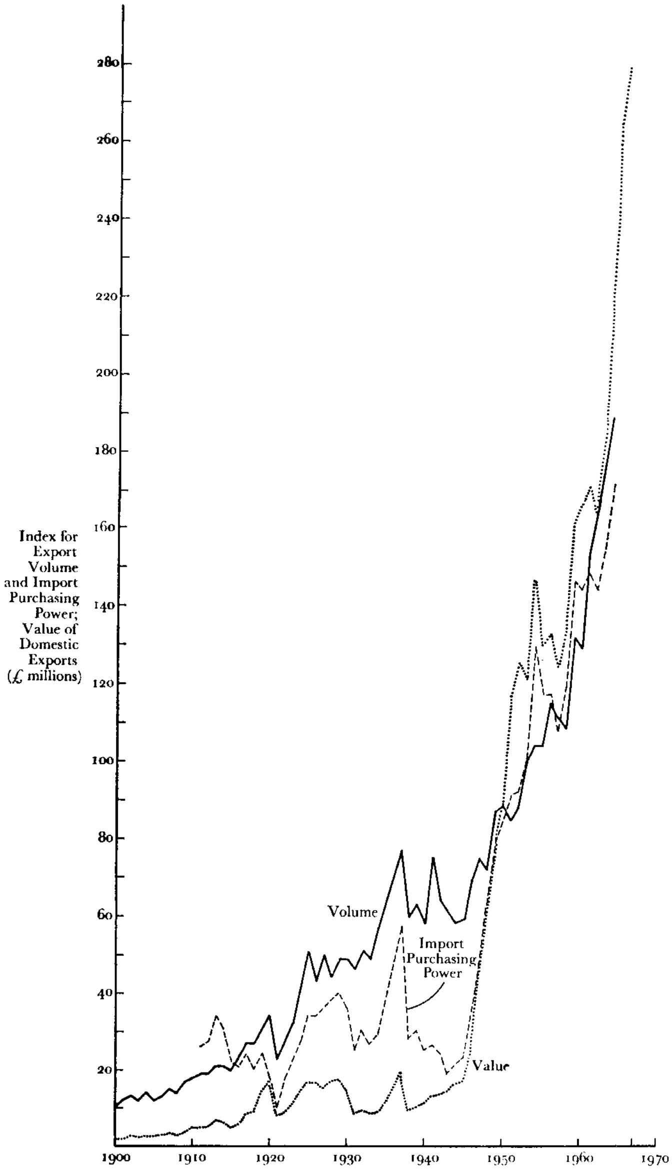

FIG. 1. Nigerian exports, 1900–1966.

NOTE: Import purchasing power (the income terms of trade) is computed by dividing an index of export value by an index of import prices.

SOURCES: G. K. Helleiner, *Peasant Agriculture*, tables IV–A–1,–2,–6; International Monetary Fund, *International Financial Statistics 1966/7*, p. 187.

has played a leading role in the modernization of the Nigerian economy while the latter has constituted the major brake to more rapid progress.

Table 1. *Selected economic indicators, 1913–1966*

	1913	1937	1946	1954	1966
Imports (£000)	6,332	14,625	19,824	114,069	256,265
Currency in circulation (£000)	1,934	7,986	16,657	51,753	91,622
Demand deposits (£000)	—	3,808	9,401	25,098	56,012
Cement consumption (tons, 000)	6	51	96	368	1,137
Electricity generated (kwh, 000)	...	15	96	179	1,208
Railway freight (ton-miles, m.)	253	408	429	909	1,215
New vehicles registered	...	2,781	2,467	9,895	27,705[a]
School enrolment (000)					
Primary	36	239	619	1,673	2,912[a]
Secondary	1	4	10	28	220
Federal Govt. expenditures (£000)	2,916	7,376	14,052	60,668	214,301
Exports (£000)	6,779	19,242	23,738	146,242	277,742

[a] 1965.

SOURCE: Helleiner, *Peasant Agriculture*, Statistical Appendix; Federal Office of Statistics, *Economic Indicators*, January 1967.

The growth in export proceeds entrained a more or less proportionate growth in other sectors of the economy, as shown in table 1. With the exception of transport and construction, which have grown with the volume of exports, by far the greatest part of the economic expansion that has taken place during the twentieth century has occurred since the tremendous improvement in export prices and the terms of trade which dates from 1946. Official national income estimates are available for the years 1950–64. On the basis of these figures, growth in domestic product, adjusting for inflation, has averaged 4·3 % per annum. Population growth is estimated at 2 to 2·5 %, which means that *per capita* income has been growing at about 2 %.

Table 2 below presents comparative data on the rate of growth of domestic product, gross investment and export receipts. The proportion of national output invested in the maintenance and expansion of productive capacity, shown in the third column, has followed an upward trend since 1950. Yet changes in the investment ratio appear to have had little influence on the economy's growth rate; stated another way, the incremental capital-output ratio has varied from as low as 1 : 1 to as high as 5 : −1.[1] On the other hand, movement in export earnings,

[1] For a comprehensive treatment of investment and growth in a national income accounting framework, see Ojetunji Aboyade, *Foundations of an African Economy: A Study of Investment and Growth in Nigeria*, New York 1966, chapters 1, 3, 4. Aboyade's pioneering work has been updated and extended in an excellent paper by Peter B. Clark, 'The General Characteristics of the Nigerian Economy and Its Economic Statistics', mimeograph, A.I.D., March 1967.

at least for the years 1950–6, does show a certain degree of correlation with changes in national output.

Table 2. *Gross domestic product, investment and export earnings*

	Growth of GDP (1957 prices) (%)	Growth of exports (curr. prices) (%)	GFI/GDP (curr. prices) (%)	GFI/GDP (1957 prices) (%)	PGFI/GFI (curr. prices) (%)
1950	...	11·2	5·9	6·9%	...
1951	7·7	31·8	7·1	9·1	...
1952	7·0	7·3	8·8	9·7	...
1953	2·3	−3·4	9·3	10·7	...
1954	7·5	21·0	10·8	12·9	39·0
1955	2·7	−11·6	12·8	14·7	47·6
1956	−2·4	1·9	14·3	15·4	44·6
1957	4·2	−6·1	10·6	10·6	43·7
1958	−1·1	6·9	12·0	11·5	41·5
1959	4·3	20·9	12·9	12·8	50·5
1960	4·6	3·2	13·1	12·1	42·6
1961	3·3	2·7	13·7	13·0	39·8
1962	5·8	−3·6	13·1	12·0	40·3
1963	4·6	12·7	14·4	12·8	35·8
1964	6·3	14·0	...	...	...

GFI = Gross Fixed Investment.
PGFI = Public Gross Fixed Investment.
1957 prices = valued at 1957 prices.
curr. prices = valued at current prices.

Sources: Federal Office of Statistics, *Annual Abstract of Statistics, 1964* and *Economic Indicators*, January 1967.

Nigeria's performance well illustrates that aggregate investment does not cause economic growth, nor can it even be correlated in developing economies with advances in real output, given that non-market-directed public investment represents a significant share in total investment. As Cairncross and others have pointed out, the greater part of aggregate investment in any economy consists of items which tend to follow rather than cause a rise in income. The capital requirements of the growth-initiating sectors are typically very small; it is investment in housing, public buildings, transport and power made in response to demand generated by the original increase in income that is responsible for the overall magnitude of aggregate investment. This is especially true for underdeveloped, predominantly agricultural economies. Since 1950 Nigeria's peasant agricultural sector has accounted for approximately half of the growth in real output while its share in total investment has averaged only 12 %.[1] Moreover, annual movements in

[1] Computed from Aboyade, *op. cit.* pp. 142–3, and Federal Office of Statistics, *Estimates of Capital Formation*, mimeograph, for the years 1956–63.

agricultural output are affected far more by changes in cultivation practice (e.g. the use of improved seed varieties), in export prices and in the weather, than by a change in the amount of fixed investment.

The fourth column of table 2 shows that real capital formation has grown at a slower rate than the investment-GDP ratio. This is attributable to a sharp rise in construction costs relative to the general price level; between 1950 and 1963 the former rose by 285 % while the latter increased by only 36 %.[1] The largest single component of this cost inflation can be traced to the shift from direct construction by the Ministry of Public Works of road and other public projects to contract tendering to Nigerian and, for the larger projects, expatriate construction firms. In addition to serious problems of qualitative standards with regard to many of the Nigerian contractors, the system has been regularly employed to extract a sizeable contractor 'kick-back' payable to the treasury of the ruling political party and the politician responsible for the contract award.[2]

Table 3. *Sectoral output as a share of gross domestic product*
(at 1957 prices)

	1950 (%)	1954 (%)	1957 (%)	1958 (%)	1961 (%)	1964 (%)
Agriculture	56·0	55·0	52·7	60·2	56·6	53·6
Livestock	8·7	6·4	6·3	5·8	6·3	5·6
Fishing	1·4	1·2	1·5	1·7	1·5	1·8
Forest products	1·4	1·4	1·6	1·2	1·3	0·9
Mining and oil	1·1	0·9	1·0	0·8	1·4	2·8
Manufacturing and utilities	0·6	0·9	1·4	2·8	3·9	4·7
Transport and communications	4·5	6·1	8·5	3·5	4·6	4·7
Building and civil engineering	3·0	4·3	4·7	2·5	2·7	3·2
Crafts	2·3	1·9	1·9	2·3	2·0	2·4
Government	2·2	2·0	3·4	3·2	3·6	3·5
Other services	18·8	19·9	17·0	16·1	16·1	16·8
	100·0	100·0	100·0	100·0	100·0	100·0
GDP (£m.)	689	872	910	900	1,014	1,232

SOURCE: Federal Office of Statistics, *Economic Indicators*, January 1967, p. 48.

[1] Computed from Clark, *op. cit.* table 3. For a detailed discussion of changes in construction costs see Aboyade, *op. cit.* pp. 121–7.

[2] Similar practices with regard to the purchase of capital equipment for state-operated industrial enterprises are discussed in chapter 4. The writer became aware of the 'kick-back' phenomenon shortly after his arrival in the country, when he and his wife were living in a newly constructed public housing estate in Ibadan. One night during a rainstorm all windward-facing houses (one-third of the total) had their roofs blown off, accompanied by partial collapse of the walls. It was later revealed that the contractors, who had substituted more sand for cement and reinforcing rods, were compelled to refund 40 % of contract proceeds to the regional political party.