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Nigeria
Non-Oil Export Prospects

June 30, 1982

Western Africa Region
Programs I

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CURRENCY EQUIVALENCE

Currency Unit		=	Naira (₦)
₦1		=	Kobo 100
1978:	₦1	=	US$1.57
1979:	₦1	=	US$1.66
1980:	₦1	=	US$1.83
1981:	₦1	=	US$1.63

FISCAL YEAR

April 1	-	March 31 (until March 31, 1980)
April 1	-	December 31 (1980 interim)
January 1	-	December 31 (from January 1, 1981)

NIGERIA

NON-OIL EXPORT PROSPECTS

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PREFACE

This report examines the export potential of Nigeria's principal non-oil sectors: agriculture and manufacturing. The first chapter of the report describes briefly the evolution of the export structure and reviews existing export promotion policies. Chapters two and three examine problems and incentives for major agricultural export crops as well as industries. Chapter four examines the long-term export potential of traditional agricultural export commodities (cocoa, groundnuts, oil palm, cotton and rubber) and some major industrial activities (vegetable oils, textiles, cement, steel, motor vehicle assembly, and chemicals and petrochemicals). And finally, the last chapter deals with the policy recommendations and identifies areas for further work.

The study is meant to be exploratory and of limited scope. Thus, no attempt is made to examine all the sectors in depth or to address all the questions related to exports. For example, neither the question of market development nor the non-oil minerals sectors are addressed. Thus the issues and recommendations discussed are those of broad relevance across product categories. In addition, the study did not go into more depth on key issues such as the exchange rate or the tariff reform since these issues require broader perspective. They will be better treated in the Bank's macro-policy and industrial incentives reports, both forthcoming. There are three major reasons for having a separate study on non-oil exports: (i) the need to focus attention on building up non-oil exports to prepare for the post-oil period; (ii) the favorable effects on efficiency in general that exports tend to bring about over time; and (iii) the particular institutional questions that need to be considered for exports.

The report is based on the findings of an economic mission which visited Nigeria in May 1981. The mission was composed of Mustapha Rouis (chief of mission), Teck Pee (agriculture), Nader Majd (statistics and institutional framework), and James Elliott, consultant (industry). The report was discussed in draft with officials of the Federal Government in May/June 1982. The report draws on the findings of a number of other recent Bank reports on Nigeria, chiefly "The Structure of Industrial Incentives, 1979-80" (September, 1981) and "Oil Palm Sub-Sector Review" (July, 1981).

NIGERIA - SOCIAL INDICATORS DATA SHEET

AREA (THOUSAND SQ. KM.)	NIGERIA			REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE)[a]	
TOTAL 923.8			MOST RECENT	MIDDLE INCOME	MIDDLE INCOME
AGRICULTURAL 512.9	1960 [b]	1970 [b]	ESTIMATE [b]	AFRICA SOUTH OF SAHARA	NORTH AMERICA & MIDDLE EAST
GNP PER CAPITA (US$)	200.0	330.0	868.0*	1053.2	1253.6
ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF COAL EQUIVALENT)	27.8	46.1	79.7	610.1	713.5
POPULATION AND VITAL STATISTICS					
POPULATION, MID-YEAR (THOUSANDS)	51598.0	66182.0	84732.0	.	.
URBAN POPULATION (PERCENT OF TOTAL)	13.1	16.4	20.4	28.3	47.3
POPULATION PROJECTIONS					
POPULATION IN YEAR 2000 (MILLIONS)			168.6	.	.
STATIONARY POPULATION (MILLIONS)			528.0	.	.
YEAR STATIONARY POPULATION IS REACHED			2105	.	.
POPULATION DENSITY					
PER SQ. KM.	55.9	71.6	89.4	54.7	35.8
PER SQ. KM. AGRICULTURAL LAND	125.0	133.3	161.1	129.9	420.9
POPULATION AGE STRUCTURE (PERCENT)					
0-14 YRS.	45.4	46.6	47.6	46.0	44.3
15-64 YRS.	52.3	51.0	50.0	51.1	52.4
65 YRS. AND ABOVE	2.3	2.4	2.4	2.8	3.3
POPULATION GROWTH RATE (PERCENT)					
TOTAL	2.4	2.5	2.5	2.8	2.8
URBAN	4.7	4.7	4.7	5.2	4.6
CRUDE BIRTH RATE (PER THOUSAND)	52.0	50.7	49.7	47.2	41.2
CRUDE DEATH RATE (PER THOUSAND)	25.3	20.8	17.0	15.7	12.2
GROSS REPRODUCTION RATE	3.4	3.4	3.4	3.2	2.9
FAMILY PLANNING					
ACCEPTORS, ANNUAL (THOUSANDS)	..	7.6	33.2/c	.	.
USERS (PERCENT OF MARRIED WOMEN)	..	..	..	..	..
FOOD AND NUTRITION					
INDEX OF FOOD PRODUCTION PER CAPITA (1969-71=100)	100.0	102.0	88.0	90.7	100.4
PER CAPITA SUPPLY OF					
CALORIES (PERCENT OF REQUIREMENTS)	83.5	82.1	83.1/d	93.9	108.5
PROTEINS (GRAMS PER DAY)	45.2	44.0	45.0/d	54.8	71.9
OF WHICH ANIMAL AND PULSE	9.5	10.4	11.1/d	17.0	18.0
CHILD (AGES 1-4) MORTALITY RATE	42.4	34.9	28.4	23.9	15.1
HEALTH					
LIFE EXPECTANCY AT BIRTH (YEARS)	38.7	43.7	48.6	51.0	56.9
INFANT MORTALITY RATE (PER THOUSAND)	183.4	158.0	135.2	118.5	104.3
ACCESS TO SAFE WATER (PERCENT OF POPULATION)					
TOTAL	..	..	..	..	59.1
URBAN	..	..	..	..	83.1
RURAL	..	..	..	..	39.8
ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)					
TOTAL	..	..	..	..	..
URBAN	..	..	..	..	..
RURAL	..	..	..	..	..
POPULATION PER PHYSICIAN	73711.4	24667.2	15742.0/e	14185.2	4015.5
POPULATION PER NURSING PERSON	4043.1/f	5073.0	2875.0/e	2213.2	1802.2
POPULATION PER HOSPITAL BED					
TOTAL	3022.7/g	2221.7	1369.5/e	1036.4	641.7
URBAN	501.2/f	494.4	373.8/e	430.8	538.3
RURAL	25629.1/f	18488.8	5494.7/e	3678.6	2403.3
ADMISSIONS PER HOSPITAL BED	..	..	..	..	25.5
HOUSING					
AVERAGE SIZE OF HOUSEHOLD					
TOTAL	..	..	..	..	..
URBAN	..	4.7/h	..	..	..
RURAL	..	..	..	..	..
AVERAGE NUMBER OF PERSONS PER ROOM					
TOTAL	..	..	..	..	..
URBAN	3.0	2.2/h	..	..	..
RURAL	..	..	..		
ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)					
TOTAL	..	..	..	..	..
URBAN	81.3	42.4/h	..	..	..
RURAL	..	..	..	..	..

NIGERIA - SOCIAL INDICATORS DATA SHEET

	NIGERIA			REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE) /a	
	1960 /b	1970 /b	MOST RECENT ESTIMATE /b	MIDDLE INCOME AFRICA SOUTH OF SAHARA	MIDDLE INCOME NORTH AMERICA & MIDDLE EAST
EDUCATION					
ADJUSTED ENROLLMENT RATIOS					
PRIMARY: TOTAL	36.0	37.0	79.0/d	83.3	88.7
MALE	46.0	47.0	..	96.1	104.5
FEMALE	27.0	27.0	..	80.4	72.0
SECONDARY: TOTAL	4.0	4.0	10.0	15.3	39.7
MALE	6.0	6.0	13.0	19.4	49.3
FEMALE	1.0	3.0	7.0	11.3	29.0
VOCATIONAL ENROL. (% OF SECONDARY)	4.8	8.5	2.7/e,i	4.7	10.1
PUPIL-TEACHER RATIO					
PRIMARY	30.2	34.1	..	38.6	34.1
SECONDARY	19.1	21.2	..	23.4	23.7
ADULT LITERACY RATE (PERCENT)	15.4/f	..	29.9	35.6	43.3
CONSUMPTION					
PASSENGER CARS PER THOUSAND POPULATION	0.6	0.9	..	31.9	17.8
RADIO RECEIVERS PER THOUSAND POPULATION	2.8	19.3	66.6	71.8	131.3
TV RECEIVERS PER THOUSAND POPULATION	0.0	1.1	5.4	17.9	44.1
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION	5.5	4.8	6.9/e	19.1	31.5
CINEMA ANNUAL ATTENDANCE PER CAPITA	..	..	0.5/c	0.6	1.7
LABOR FORCE					
TOTAL LABOR FORCE (THOUSANDS)	21788.5	25991.9	31500.0	.	.
FEMALE (PERCENT)	41.3	40.6	39.8	36.5	10.6
AGRICULTURE (PERCENT)	71.0	62.0	60.0*	56.5	42.4
INDUSTRY (PERCENT)	10.0	14.0	18.7*	17.7	27.8
PARTICIPATION RATE (PERCENT)					
TOTAL	42.2	39.3	36.4	37.0	26.0
MALE	50.3	47.3	44.2	46.9	46.2
FEMALE	34.4	31.5	28.6	27.2	5.6
ECONOMIC DEPENDENCY RATIO	1.1	1.2	1.4	1.3	1.9
INCOME DISTRIBUTION					
PERCENT OF PRIVATE INCOME RECEIVED BY					
HIGHEST 5 PERCENT OF HOUSEHOLDS	..	..	..	..	..
HIGHEST 20 PERCENT OF HOUSEHOLDS	..	..	..	..	..
LOWEST 20 PERCENT OF HOUSEHOLDS	..	..	..	..	..
LOWEST 40 PERCENT OF HOUSEHOLDS	..	..	..	..	..
POVERTY TARGET GROUPS					
ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US$ PER CAPITA)					
URBAN	..	..	679.0	507.0	279.2
RURAL	..	..	258.0	200.6	178.6
ESTIMATED RELATIVE POVERTY INCOME LEVEL (US$ PER CAPITA)					
URBAN	..	..	616.5*	523.9	403.6
RURAL	..	..	205.5*	203.6	285.6
ESTIMATED POPULATION BELOW ABSOLUTE POVERTY INCOME LEVEL (PERCENT)					
URBAN	..	..	..	..	22.1
RURAL	..	..	..	..	30.9

.. Not available
. Not applicable.

NOTES

/a The group averages for each indicator are population-weighted arithmetic means. Coverage of countries among the indicators depends on availability of data and is not uniform.

/b Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961; for 1970, between 1969 and 1971; and for Most Recent Estimate, between 1978 and 1980.

/c 1974; /d 1977; /e 1976; /f 1962; /g Including ex-North Cameroon under British administration; /h 1972; /i Certain fields of study previously classified under other second level education of vocational or technical nature are now reported under general education.

* Revised based on recent data from the Federal Office of Statistics and the Ministry of Planning.

May 1982

DEFINITIONS OF SOCIAL INDICATORS

Notes: Although the data are drawn from sources generally judged the most authoritative and reliable, it should also be noted that they may not be internationally comparable because of the lack of standardized definitions and concepts used by different countries in collecting the data. The data are, nonetheless, useful to describe orders of magnitude, indicate trends, and characterize certain major differences between countries.

The reference groups are (1) the same country group of the subject country and (2) a country group with somewhat higher average income than the country group of the subject country (except for "High Income Oil Exporters" group where "Middle Income North Africa and Middle East" is chosen because of stronger socio-cultural affinities). In the reference group data the averages are population weighted arithmetic means for each indicator and shown only when majority of the countries in a group has data for that indicator. Since the coverage of countries among the indicators depends on the availability of data and is not uniform, caution must be exercised in relating averages of one indicator to another. These averages are only useful in comparing the value of one indicator at a time among the country and reference groups.

AREA (thousand sq.km.)
- Total - Total surface area comprising land area and inland waters; 1979 data.
- Agricultural - Estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow; 1979 data.

GNP PER CAPITA (US$) - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1978-80 basis); 1960, 1970, and 1980 data.

ENERGY CONSUMPTION PER CAPITA - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita; 1960, 1970, and 1979 data.

POPULATION AND VITAL STATISTICS
- Total Population, Mid-Year (thousands) - As of July 1; 1960, 1970, and 1980 data.
- Urban Population (percent of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries; 1960, 1970, and 1980 data.
- Population Projections
  - Population in year 2000 - Current population projections are based on 1980 total population by age and sex and their mortality and fertility rates. Projection parameters for mortality rates comprise of three levels assuming life expectancy at birth increasing with country's per capita income level, and female life expectancy stabilizing at 77.5 years. The parameters for fertility rate also have three levels assuming decline in fertility according to income level and past family planning performance. Each country is then assigned one of these nine combinations of mortality and fertility trends for projection purposes.
  - Stationary population - In a stationary population there is no growth since the birth rate is equal to the death rate, and also the age structure remains constant. This is achieved only after fertility rates decline to the replacement level of unit net reproduction rate, when each generation of women replaces itself exactly. The stationary population size was estimated on the basis of the projected characteristics of the population in the year 2000, and the rate of decline of fertility rate to replacement level.
  - Year stationary population is reached - The year when stationary population size will be reached.
- Population Density
  - Per sq. km. - Mid-year population per square kilometer (100 hectares) of total area; 1960, 1970 and 1979 data.
  - Per sq. km. agricultural land - Computed as above for agricultural land only; 1960, 1970 and 1979 data.
- Population Age Structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population; 1960, 1970, and 1980 data.
- Population Growth Rate (percent) - total - Annual growth rates of total mid-year population for 1950-60, 1960-70, and 1970-80.
- Population Growth Rate (percent) - urban - Annual growth rates of urban populations for 1950-60, 1960-70, and 1970-80.
- Crude Birth Rate (per thousand) - Annual live births per thousand of mid-year population; 1960, 1970, and 1980 data.
- Crude Death Rate (per thousand) - Annual deaths per thousand of mid-year population; 1960, 1970, and 1980 data.
- Gross Reproduction Rate - Average number of daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970, and 1980.
- Family Planning - Acceptors, Annual (thousands) - Annual number of acceptors of birth-control devices under auspices of national family planning program.
- Family Planning - Users (percent of married women) - Percentage of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

FOOD AND NUTRITION
- Index of Food Production per Capita (1969-71=100) - Index of per capita annual production of all food commodities. Production excludes seed and feed and is on calendar year basis. Commodities cover primary goods (e.g. sugarcane instead of sugar) which are edible and contain nutrients (e.g. coffee and tea are excluded). Aggregate production of each country is based on national average producer price weights; 1961-65, 1970, and 1980 data.
- Per capita supply of calories (percent of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day. Available supplies comprise domestic production, imports less exports, and changes in stock. Net supplies exclude animal feed, seeds, quantities used in food processing, and losses in distribution. Requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distribution of population, and allowing 10 percent for waste at household level; 1961-65, 1970 and 1977 data.
- Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day. Net supply of food is defined as above. Requirements for all countries established by USDA provide for minimum allowances of 60 grams of total protein per day and 20 grams of animal and pulse protein, of which 10 grams should be animal protein. These standards are lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey; 1961-65, 1970 and 1977 data.
- Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day; 1961-65, 1970 and 1977 data.
- Child (ages 1-4) Death Rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group, for most developing countries data derived from life tables; 1960, 1970 and 1980 data.

HEALTH
- Life Expectancy at Birth (years) - Average number of years of life remaining at birth; 1960, 1970 and 1980 data.
- Infant Mortality Rate (per thousand) - Annual deaths of infants under one year of age per thousand live births; 1960, 1970 and 1980 data.
- Access to Safe Water (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the housewife or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.
- Access to Excreta Disposal (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) served by excreta disposal as percentages of their respective populations. Excreta disposal may include the collection and disposal, with or without treatment, of human excreta and waste-water by water-borne systems or the use of pit privies and similar installations.
- Population per Physician - Population divided by number of practising physicians qualified from a medical school at university level.
- Population per Nursing Person - Population divided by number of practising male and female graduate nurses, assistant nurses, practical nurses and nursing auxiliaries.
- Population per Hospital Bed - total, urban, and rural - Population (total, urban, and rural) divided by their respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally custodial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities. For statistical purposes urban hospitals include WHOs principal/general hospitals, and rural hospitals, local or rural hospitals and medical and maternity centers. Specialized hospitals are included only under total.
- Admissions per Hospital Bed - Total number of admissions to or discharges from hospitals divided by the number of beds.

HOUSING
- Average Size of Household (persons per household) - total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes.
- Average number of persons per room - total, urban, and rural - average number of persons per room in all urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.
- Access to Electricity (percent of dwellings) - total, urban, and rural - Conventional dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

EDUCATION
- Adjusted Enrollment Ratios
  - Primary school - total, male and female - Gross total, male and female enrollment of all ages at the primary level as percentages of respective primary school-age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.
  - Secondary school - total, male and female - Computed as above; secondary education requires at least four years of approved primary instruction; provides general, vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.
- Vocational enrollment (percent of secondary) - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.
- Pupil-teacher ratio - primary, and secondary - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.
- Adult literacy rate (percent) - Literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

CONSUMPTION
- Passenger Cars (per thousand population) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.
- Radio Receivers (per thousand population) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.
- TV Receivers (per thousand population) - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV receivers in countries and in years when registration of TV sets was in effect.
- Newspaper Circulation (per thousand population) - Shows the average circulation of "daily general interest newspaper", defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.
- Cinema Annual Attendance per Capita per Year - Based on the number of tickets sold during the year, including admissions to drive-in cinemas and mobile units.

LABOR FORCE
- Total Labor Force (thousands) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc., covering population of all ages. Definitions in various countries are not comparable; 1960, 1970 and 1980 data.
  - Female (percent) - Female labor force as percentage of total labor force.
  - Agriculture (percent) - Labor force in farming, forestry, hunting and fishing as percentage of total labor force; 1960, 1970 and 1980 data.
  - Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force; 1960, 1970 and 1980 data.
- Participation Rate (percent) - total, male, and female - Participation or activity rates are computed as total, male, and female labor force as percentages of total, male and female population of all ages respectively; 1960, 1970, and 1980 data. These are based on ILO's participation rates reflecting age-sex structure of the population, and long time trend. A few estimates are from national sources.
- Economic Dependency Ratio - Ratio of population under 15 and 65 and over to the total labor force.

INCOME DISTRIBUTION
- Percentage of Private Income (both in cash and kind) - Received by richest 5 percent, richest 20 percent, poorest 20 percent, and poorest 40 percent of households.

POVERTY TARGET GROUPS
The following estimates are very approximate measures of poverty levels, and should be interpreted with considerable caution.
- Estimated Absolute Poverty Income Level (US$ per capita) - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.
- Estimated Relative Poverty Income Level (US$ per capita) - urban and rural - Rural relative poverty income level is one-third of average per capita personal income of the country. Urban level is derived from the rural level with adjustment for higher cost of living in urban areas.
- Estimated Population Below Absolute Poverty Income Level (percent) - urban and rural - Percent of population (urban and rural) who are "absolute poor".

Economic and Social Data Division
Economic Analysis and Projections Department
May 1982

ECONOMIC INDICATORS

GROSS NATIONAL PRODUCT IN 1981

	US$ Mln.	%	ANNUAL RATE OF GROWTH (%, Constant Prices) 1975-80	1980	1981
GNP at Market Prices	71447	100.0	3.5	3.3	2.8
Gross Domestic Investment	21094	29.5	8.1 1/	15.7	8.9
Gross National Saving	15524	21.7	4.1	-3.6	-32.8
Current Account Balance	-5570	-7.8	-	-	-
Exports of Goods, NFS	17870	25.0	3.6	-13.3	-36.8
Imports of Goods, NFS	22436	31.4	6.2	21.8	7.8

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1981

	Value Added		Labor Force 2/		V. A. Per Worker	
	US$ Mln.	%	Mln.	%	US $	%
Agriculture	16513	23.3	18.9	60.0	874	38.9
Industry & Mining	25916	36.6	5.9	18.7	4393	195.5
Services	28351	40.1	6.7	21.3	4231	188.3
Total/Average	70780	100.0	31.5	100.0	2247	100.0

GOVERNMENT FINANCE

	General Government			Central Government		
	(N Mln.)	% of GDP		(N Mln.)	% of GDP	
	1981 3/	1980 4/	1979/80	1981 3/	1980 4/	1979/80
Current Receipts	13040	31.3	28.0	7924	23.5	20.7
Current Expenditure	11954	24.2	11.5	5112	7.7	6.1
Current Surplus	1086	7.1	16.5	2812	15.8	14.6
Capital Expenditures	..	..	19.2	6842	16.5	15.4
External Assistance (net)	..	..	-	1671 5/	0.3	2.3

MONEY, CREDIT, AND PRICES

	1975	1976	1977	1978	1979	1980
	(Million N Outstanding End Period)					
Money and Quasi Money	4165	5732	7439	7873	9845	14275
Bank Credit to Public Sector (Net)	-642	551	2309	3779	3296	3577
Bank Credit to Private Sector	1798	2423	3465	4605	5249	6970
	(Percentages or Index Numbers)					
Money and Quasi Money as % of GDP	19.3	21.0	23.0	21.0	20.8	28.3
General Price Index (1960 = 100) 6/	289.6	352.4	423.1	492.5	550.0	604.0
Annual percentage changes in:						
General Price Index	33.5	21.7	20.1	16.4	11.7	9.8
Bank Credit to Public Sector	..	..	419.1	63.7	-12.8	8.5
Bank Credit to Private Sector	58.4	34.8	43.0	32.9	14.0	32.2

NOTE: All conversions to dollars in this table are at the average exchange rate prevailing during the period covered.

1/ Growth rate for the period 1974-80.
2/ The data is derived from plan document and refers to the number of "gainfully employed".
3/ Preliminary.
4/ Revised Estimates.
5/ Budget.
6/ Index of Urban Consumer Prices up to 1977. National Price Index from 1978.

.. Not available.

TRADE PAYMENTS AND CAPITAL FLOWS

BALANCE OF PAYMENTS

	1979	1980 1/	1981
		(Millions US$)	
Exports of Goods, NFS	17,796	24,758	17,870
Imports of Goods, NFS 1	15,285	20,723	22,436
Resource Gap (deficit = -)	2,511	4,035	-4,566
Interest Payments (net)	-247	370	702
Workers' Remittances	-	-	-
Other Factor Payments (net)	-201	-876	-1,124
Net Transfers	-388	576	-582
Balance on Current Account	1,675	2,953	-5,570
Direct Foreign Investment	305	340	29
Net MLT Borrowing			
Disbursements	1,022	1,138	1,367
Amortization	-38	-141	-583
Subtotal	984	997	784
Capital Grants	-	-	-
Other Capital (net)	10	81	-39
Other items n.e.i	388	478	-38
Increase in Reserves (+)	+3,362	+4,849	-4,834
Gross Reserves (end year)			
Net Reserves (end year)	5,712	10,561	5,727
Fuel and Related Materials			
Imports			
of which: Petroleum	400	543	..
Exports			
of which: Petroleum	15,657	22,408	16,748

RATE OF EXCHANGE

1976: ₦1.00 = US$1.60
1977: ₦1.00 = US$1.55
1978: ₦1.00 = US$1.57
1979: ₦1.00 = US$1.66
1980: ₦1.00 = US$1.83
1981: ₦1.00 = US$1.63

MERCHANDISE EXPORTS (AVERAGE 1979-1981) 2/

	US$ Mln.	%
Crude Oil	18271	90.2
Cocoa Products	476	2.3
Palm Products	..	..
Tin	18	0.1
All Other Commodities	1507	7.4
Total	20272	100.0

EXTERNAL DEBT, DECEMBER 31, 1981

	US$ Mln.
Public Debt, incl. undisbursed	11754
Non-Guaranteed Private Debt	..
Total outstanding & disbursed	4652

DEBT SERVICE RATIO FOR 1981 3/

	%
Public Debt. incl. guaranteed	4.1
Non-Guaranteed Private Debt	..
Total outstanding & disbursed	..

IBRD/IDA LENDING (Dec. 31, 1981) (Millions $)

	IBRD	IDA
Outstanding & Disbursed	562.2	37.1
Undisbursed	595.1	-
Outstanding incl. Undisbursed	1,157.3	37.1

1/ Estimated.
2/ Estimates for 1980 and 1981.
3/ Ratio of Debt Service to Exports of Goods and Non-Factor Services.

.. Not Available.

July 1982

NIGERIA

NON-OIL EXPORT PROSPECTS

SUMMARY AND CONCLUSIONS

Past Export Development

i. Nigeria was primarily an agricultural economy until oil became the major source of foreign exchange and government revenue in the seventies. At the same time, as total exports from Nigeria increased dramatically in absolute and relative terms (with respect to GDP) over the last two decades, the structure of exports went from a diversified and reasonably balanced agricultural base to one largely dominated by oil exports. Thus, in the early sixties over 80 percent of Nigeria's total exports was made up of agricultural commodities such as oil palm products (palm oil, palm kernels and palm kernel oil), groundnuts, cocoa, cotton, rubber, and timber; today more than 95 percent is accounted for by petroleum.

ii. At present, non-petroleum exports consist overwhelmingly of agricultural products: cocoa beans, rubber and palm kernels, of which cocoa beans are the only significant earner of foreign exchange. Exports of many other commodities such as groundnuts, palm oil and timber have been banned. In the case of palm oil, Nigeria has become a net importer after accounting for about one-fourth of the total world supply in the early sixties. The contribution of manufactured and semi-manufactured goods to the country's foreign exchange earnings is negligible (about ₦40 million in 1980 out of total earnings of ₦13,500 million). These exports consist mainly of tin, groundnut cake, palm kernel oil, and cocoa by-products (butter, cake, and powder). There are virtually no recorded exports from industries such as textiles and cement which at one point had seemed close to satisfying domestic demand and from which exports might have appeared to be a logical next step.

iii. The current structure of exports is worrisome, particularly since oil production is expected to start declining in the early nineties and exports will begin to decline even sooner. A sense of urgency in diversifying exports is now warranted given the fact that it will take a long time to bring about the necessary structural changes of the economy in order to generate exports from agriculture and manufacturing. In other words, the process of export development can be a long one since an infrastructure and industrial base has to be built. Investment in branches in which a long-term comparative advantage exists (paras. xiii - xv) needs to take place as soon as possible.

iv. The present report examines specifically the questions of the potential for non-oil exports and the policy changes required to exploit that potential. In order to do so, we first examined the existing constraints on and incentives for both agricultural export crops and manufacturing. The emphasis on non-oil exports in this report should not be viewed as opposing the development of efficient import-substitution activities in the country. It should be seen, however, as an effort to correct the imbalance built into the incentives system between export- and inward-oriented activities.

Existing Export Promotion Policies

v. It is frequently stated in various official documents that one of the country's objectives is expansion of non-oil exports. In practice, however, little has been done to accomplish this to date mainly because of the comfortable balance of payments position on average. There are two exceptions: the establishment of an export promotion agency--the Nigerian Export Promotion Council (NEPC)--and the introduction of subsidies for some agricultural commodity exports. Since its founding in 1976, however, NEPC has not heen able to function effectively as a focal-point institution. It currently suffers from difficulties in recruiting an adequate number of competent staff and from a certain overlap with various agencies related to export promotion. Working relationships with government institutions most concerned with export development, namely the Federal Ministries of Commerce and Industry, have yet to be established on a systematic basis by NEPC.

vi. With respect to agriculture, there are a number of direct trade restrictions on exports, with prohibition of groundnut oil, palm oil, and lumber. Export taxation of traditional products has become insignificant in recent years. In fact, many of the traditional export crops are now subsidized. With respect to industries, most of the currently available incentive measures are primarily meant for import-substitution activities. These include allowances for depreciation, tax holiday for pioneer industries, and the approved user scheme. The latter allows admission of imported inputs at concessional rates. Among the incentive measures, designed exclusively for export-oriented industries, the duty drawback scheme is the only measure which has been in place for a long time. The scheme consists of refunding import duties imposed on raw materials used in the manufacture of goods that are exported. Other incentive measures, which include an export development fund, export guarantee fund and insurance scheme, and industrial free zones, have recently been added to the list. All these measures, except for the development fund, are not yet operational.

Constraints on and Incentives for Exports

vii. The major problems facing the Nigerian productive sectors in general, and the potentially export-oriented sectors in particular, are certain deficiencies in general policy (trade and exchange rate) resulting from the oil syndrome, inadequate infrastructure, and lack of availability of skilled manpower. Beside these general problems, there are specific factors impeding the expansion of agricultural exports and the emergence of manufactured goods exports. The absence thus far of adequate measures dealing with most of the problems suggests that a sense of urgency in promoting exports is somehow lacking.

viii. Commodity Crops. The problems of agriculture are well known and have received much attention both in Nigeria and the Bank. Generally, the constraints on export crop production also apply to food crop production. They are mainly high labor costs, inadequate supply and quality of inputs, poor extension services, unfavorable marketing boards policies, and inadequately developed credit institutions. There are other problems which are crop-specific such as drought and disease.

ix. Although a number of remedial measures were taken by the Government to help the agriculture sector, production and exports of crops still are on the decline. These measures include reorganization of the old marketing board system into crop-specific commodity boards, introduction of large-scale/mechanized farming, and expansion of institutional credit facilities.

x. Manufacturing. On the basis of the tariff structure for 1979, we have calculated anti-export bias coefficients--defined as the percentage excess of domestic value added obtainable as a result of production for domestic markets over that obtainable in exporting--for a number of Nigerian industries. In all but a few cases, the coefficients are positive and large. This means that, in the absence of export subsidies, the existing system of protection imparts a substantial degree of bias against exports to most industries. Even if import duty rebates are implemented, it would seem that they would be fairly insignificant as an incentive for industries benefitting from approved user status and for those in which firms are using mostly materials of local origin. Import duty rebates would also have the undesirable effect of encouraging substitution of imported inputs for those of local origin. It should be noted that the oil syndrome already makes imports relatively cheap.

xi. Under certain assumptions, it can be argued that a necessary but not a sufficient condition for an import duty rebate to at least compensate the exporter for foregoing what he could earn on the domestic market is for the tariff on the industry's output to be equal to or less than the average tariff rate on traded goods inputs used by the industry. This condition is hardly ever fulfilled in the Nigerian case. Where it is fulfilled, the industry in question is suffering from a negative effective rate of protection.

xii. While the existing tariff structure and degree of exchange rate distortion stifle the development of legitimate exports from the manufacturing sector, they at the same time encourage illegal (unrecorded) exports of a number of products. Illegal exports of some magnitude are known to exist, in particular in the case of glass containers (bottles), aluminum extrusions, detergents and soap, and even textiles. Illegal exports do not necessarily indicate that an industry has an economic cost advantage in export markets which would justify an effort to promote exports from that industry. The divergence between the official and the black market exchange rates can stimulate illegal exports, even from a non-efficient industry, i.e. an industry receiving a high effective rate of protection and showing no evidence of excess profits.

Export Prospects

xiii. From the point of view of world demand, the longer term outlook for cotton and rubber appears favorable, for groundnuts, palm oil and palm kernels it appears relatively favorable, and for cocoa it is, however, unattractive. For cotton, the brighter outlook is mainly due to higher prices for man-made fibers; and for rubber, it is a reflection of a possible recovery of the

industrialized economies. For groundnuts, the relatively attractive prospect is a reflection of a recovery in the world economy and the distinctive taste of the groundnut oil; for palm oil and palm kernels, it is a reflection of stiff competition from cheap fats and oils. For cocoa, the unfavorable outlook is essentially due to the anticipated impact of new plantings in other countries.

xiv. From the Nigerian supply side, there seems to be little prospect in the short- and medium-term to resume exports of cotton, groundnuts and palm oil. It would be a significant achievement simply to be able to increase production to catch up and keep pace with local demand. Even for cocoa, rubber and palm kernels, there does not seem to be any possibility for achieving sustained increases in output so long as production constraints are not removed. Estimates of domestic resource cost ratios (here we used static rather than dynamic DRCs because of lack of information) indicate that groundnuts cultivation is less competitive at the world market while oil palm cultivation, in contrast, is competitive. For cotton, rubber, and cocoa information is not available to carry out a similar calculation.

xv. The mission examined a number of industries in depth for evidence of export potential. These industries include vegetable oils (palm oil, palm kernel oil, groundnut oil and cotton seed oil), textiles, cement, steel, motor vehicle assembly, and chemicals and petrochemicals. Their combined shares in the total value added and employment of the manufacturing sector are slightly more than 22 and 35 percent, respectively. Our specific conclusions with regard to the industries examined in detail are as follows:

- The long run outlook for exports of palm oil, groundnut oil, and cotton seed oil is poor because of supply constraints. In the case of palm kernel oil, exports could be increased ten-fold if the industry could be brought up to full capacity operation. Further analysis is required to determine if this would represent an economic use of resources.

- For textiles, there is the possibility of exports of low-quality textiles from Nigeria. (There is already some evidence of such exports through illegal channels.) This would amount to a policy of horizontal specialization. The important question which needs to be investigated is how important and reliable export markets for low quality textiles are. Furthermore, the long-term prospects for exports are problematic because of the high labor costs and the doubtful future of cotton growing in the country.

- Many cement plants are operating far below rated capacity because of various constraints, particularly weak management. Even if these obstacles are eliminated, exports of any magnitude of cement in the foreseeable future seem unlikely given the large domestic demand. However, there might be some prospect for exports to areas in neighboring countries in the natural market area of Nigerian cement plants.

- It is possible that Nigeria could have a cost advantage in producing steel in semi-finished form since cheap energy (from associated natural gas) is crucial in determining competitiveness in this industry.

- The Nigerian motor vehicle assembly could become more cost-competitive by exploiting economies of scale and limiting the number of models produced. However, the extent to which costs can be lowered in the foreseeable future and whether or not the industry can become fully competitive on world markets is open to question. There is a clear interest in exporting on the part of some of the existing firms; the subsidy required to encourage exports (confined to ECOWAS countries) is quite large. Our preliminary calculations indicate that implementation of import duty rebates would provide only about 40 percent of the subsidy required.

- Apart from LNG, which is entirely conceived for the export market and whose success would depend critically on the security of the marketing arrangements, exports can be expected only initially from the two other projects (fertilizer and petrochemical complex) which are under active consideration. Another area where exports might be an option is the soap and detergents industry.

Recommendations and Further Work

xvi. Our analysis of the non-oil export sector reveals that the sector suffers in many respects from the inadequacy of the current incentives system as well as from the absence of real efforts in diversifying exports. Development of the sector depends, therefore, on major changes in Nigeria's trade and exchange rate policies as well as in the attitudes towards exports. It should be noted that sector-specific issues on which action is required are also vitally important.

xvii. Among possible ways of eliminating or reducing the current high degree of anti-export bias, it is recommended that the one implying a certain adjustment in the exchange and tariff rates coupled with the introduction of export subsidies be seriously considered. More specifically, we recommend to:

- examine the extent to which the Naira is overvalued and make adjustment taking into account economic efficiency as well as political realities. The current policy of effective depreciation of the Naira through the 'crawling peg' is a step in the right direction which should be continued;

- move gradually towards greater uniformity of net effective rates of protection. This is a complex and difficult task which would entail (i) reduction in the use of quantitative restrictions (i.e., of import bans and licensing) and their replacement by tariffs in

all but a number of exceptional cases; and (ii) lowering tariffs on goods receiving relatively high levels of net effective protection as well as raising tariffs on goods currently receiving low levels of protection. A program to safeguard against short-term dumping policies should also be developed;

- subsidize non-oil exports to the extent necessary to remove any remaining discrimination against exports. Export subsidies--ideally based on value added--should be applied for most activities and should take account of the need to avoid both possible retaliation and heavy budgetary costs. Financing of export subsidies would be from import tariffs. The level of subsidies should be reduced in accordance over a period of time announced in advance.

xviii. In addition to exchange rate and trade policies, there are a number of other specific policy instruments which are recommended to be used to promote exports. Among these are preferential interest rates, changes in the exchange control regime (e.g. introduction of retained accounts of foreign exchange for exports, easy repatriation of dividends and debt payments, etc.) and greater provision by the Government of adequate physical infrastructure and services including establishment of one or two pilot industrial free zones as well as trading houses. The export promotion agency (NEPC) needs also to be strengthened, particularly in the area of coordination between the various agencies associated with export promotion.

xix. In the case of agriculture, the supply system for getting inputs to smallholders is, in general, inadequate and, therefore, needs to be examined. Most likely, it would be more effective to encourage the private sector to take over a large share of the responsibility. It is suggested that the experience of other countries in land development as well as in the organization of research and development be considered. With respect to tree crops (essentially oil palm and rubber), it is recommended that the existing stock of obsolete trees be replaced with higher-yielding materials. It is crucial that rehabilitation investment go into tree crops for which the prospective rate of return, at world prices, is high, so as to allow Nigeria to compete in export markets. It should be kept in mind that the longer term outlook appears unattractive for some crops, especially cocoa. It is also suggested that subsidies to growers of most crops supplying their raw materials to oil milling industries be considered.

xx. From the analysis of some industrial subsectors, the following recommendations emerge. For industries such as palm milling and cement, a greater use of managerial and technical expertise should be encouraged. In the textiles industry, a policy of horizontal specialization coupled with the lifting of the import ban should be examined. In the steel industry, the possibility of a vertical specialization strategy involving the production of semi-finished steel using non-associated gas as a source of energy should be explored. As a matter of general importance to the economy as a whole, alternative possibilities for the use of non-associated gas should be investigated. In the motor vehicle industry, a policy of horizontal specialization to limit the number of models should be pursued.

xxi. Formulation of more specific policy options will depend, to a large extent, on additional work in two areas. First, with respect to the general economic issues, there are at least two areas that need to be examined: the extent to which the exchange rate is overvalued and the workings of the exchange control and licensing regime. Second, there are some more detailed studies that should be undertaken on particular issues including: (i) studies of industries such as textiles, steel, energy-based industry, fertilizers, and light engineering; (ii) calculation of domestic resource cost coefficients and estimates of subsectoral productivity growth; (iii) study of commodity board pricing policies; and (iv) study of unrecorded trade between ECOWAS member countries.

xxii Some of the above issues such as the exchange rate and the utilization of energy in Nigeria are addressed by the World Bank in separate studies on macro-economic policies and the energy sector.

CHAPTER 1

PAST EXPORT DEVELOPMENT: FROM A DIVERSIFIED AGRICULTURE BASE TO AN OIL EXPORT BASE

Background

1.01 Nigeria was primarily an agricultural economy until the advent of oil as the major engine of growth as well as source of foreign exchange and public revenue in the seventies. Since then, the structure of the economy has changed drastically in favor of indirectly productive sectors such as trade and construction at the expense of agriculture and manufacturing. Agriculture and manufacturing sectors have suffered considerably from the adverse effects of the oil developments: high inflation, high cost of production, diversion of private investment to trade and commerce, as well as to urban property and construction which are highly lucrative. The relative importance of the manufacturing sector in GDP remains very small, around 7 percent, while the share of agriculture declined sharply, from 45 percent in 1970 to around 22 percent in 1980. Over the same period, construction and trade activities increased, respectively, from 6 and 10 percent to 8 and 22 percent. This pattern of development was, to some extent, the result of the Government's spending pattern as well as its preoccupation more with immediate and pressing problems of stabilizing the economy than with long-term structural adjustments.

1.02 Growth in agricultural output (excluding rice) was disappointing in the 1970s, particularly in the post-oil boom period. Although FAO's figures on crop production must be treated with caution, the picture that emerges is one of almost general stagnation in the food and export crop subsectors. Food crops had, however, almost invariably fared better than export crops during this period. The only export crop showing a positive production growth rate was palm oil, but this growth was still less than that of domestic demand. In view of this trend it is, perhaps, not surprising that Nigeria has lost its former position as an important producer and exporter of oil palm produce (palm oil, palm kernels and palm kernel oil), groundnuts, cocoa beans, rubber and cotton to become a net importer of vegetable oils (including palm oil and groundnut oil) and cotton.

1.03 In the case of the manufacturing sector, the high momentum of growth experienced in the 1950s and 1960s was not maintained in the 1970s, particularly in the post-oil boom phase. While the aggregate growth of manufacturing remained relatively high in the 1970s, some industries remained either stagnant (footwear and sugar) or declined both in relative and absolute terms (vegetable oil and tin smelting); and contrary to the Government's stated industrial priorities, the domestic resource-based industries were among the worst performers. This deceleration in growth occured at a time when domestic demand was rising rapidly as reflected in the large increase in manufactured imports. In view of this trend, it is not surprising that Nigeria has not been able to export commodities other than petroleum.

1.04 As a result of the structural changes in the Nigerian economy as well as the disappointing performance of agriculture and, to some extent, manufacturing, the structure of exports has gone from a diversified and reasonably balanced agricultural base (with cocoa, groundnuts and oil palm each accounting for 15-25 percent of total exports) to a base overwhelmingly dominated by oil exports. Prior to the 1973 oil boom, exports from Nigeria used to be dominated by agricultural commodities such as palm kernels, groundnuts, cocoa beans, cotton, rubber, and timber products. Agro-allied products (essentially palm oil, groundnut oil, and groundnut cake) and tin metal also accounted for a respectable share in total exports. Table 1.1 shows that in the early sixties over 80 percent of Nigeria's total exports was made up of agricultural commodities and agro-allied products, but now more than 95 percent is accounted for by petroleum. While over the past two decades total export earnings increased more rapidly than the overall growth of the economy, non-oil export earnings grew much less than non-oil GDP. As a proportion of GDP, total exports rose from about 14 percent in the early sixties to about 30 percent in the late seventies, almost exclusively on account of the rise in oil exports. On the other hand, the share of non-oil exports in non-oil GDP declined drastically (from 13 percent to less than 2 percent) over the same period.

1.05 The above described structure of exports (also summarized in Table 1.1) is worrisome for the medium- and long-term development of the Nigerian economy for the reasons explained below. Thus, ways and means to revive agricultural exports and to generate exports of manufactured goods should be examined. This is precisely the purpose of this study.

Need for Export Diversification

1.06 The heavy dependence of the Nigerian economy for foreign exchange earnings on a single export commodity--petroleum--has serious implications for the country's long-term economic prospects for at least three reasons. First, oil is a non-renewable resource, and at present reserves do not appear adequate to supply indefinitely needs of domestic oil consumption and of import financing, both of which are growing rapidly. Oil output can be expected to start declining in the nineties, while exports will begin to decline even earlier given the rapidly rising domestic consumption of oil. Second, a serious foreign exchange crisis could arise should there be unforeseen world market problems with oil. This already happened in 1977-78 and is currently happening, as Nigeria is now experiencing along with many other oil-producing countries difficulties in marketing its oil due to the current glut in the world market. Third, because oil earnings accrue only to the Government, they do not have the same automatic distributional effect as, say, cocoa export earnings (in countries with appropriate pricing policies) which directly affect incomes of the cocoa producers. (In practice, this can be corrected by fiscal redistribution and labor market measures.)

1.07 Because of the potential danger from a single commodity export structure analyzed above, it is important in order that the Nigerian economy have a sustainable growth in the longer term, to diversify exports away from oil. Diversification of exports is also desirable because of favorable

Table 1.1: SUMMARY EXPORT INDICATORS, 1960-1980

	1960	1970	1975	1980
	In Current Prices (₦ million)			
GDP	2400	7383	21577	43887
Non-Oil GDP	2393	6913	17299	33153
Total Exports	331	885	4926	13551
Non-Oil Exports	323	375	362	526
Agriculture b/	238	241	229	340
Manufacturing c/	42	90	55	39
Others d/	43	44	78	147
Government Revenues	224 a/	1150	5833	15815
Non-Oil Revenues	209 a/	627	1221	2591
Export Duties	27 a/	41	4	2
	In Percentage			
Non-Oil Exports as % of Non-Oil GDP	13.4	5.4	2.1	1.6
Non-Oil Exports as % of Total Exports	97.3	42.4	7.4	3.9
Agriculture b/	71.8	27.2	4.7	2.5
Manufacturing c/	12.6	10.2	1.1	0.3
Others d/	12.9	5.0	1.6	1.1
Export Duties as % of Non-Oil Exports	8.4	10.9	1.1	0.4
Export Duties as % of Non-Oil Revenues	12.9	6.5	0.3	0.1

a/ Data is for 1961.

b/ Includes cocoa, cotton, groundnuts, palm kernels, rubber, timber, hides and skins, and coffee.

c/ Includes palm oil, groundnut oil, cocoa butter, cocoa powder, cocoa cake, groundnut cake and tin metal.

d/ Includes non-oil minerals mainly columbite and re-exports.

Source: Central Bank of Nigeria

effects on efficiency in general (optimal use of resources, economies of scale, quality impact, etc.). The argument favoring the pursuit of an explicit export policy is supported by a growing body of empirical evidence from the experience of many countries. What is needed is to shift gradually the engine of growth from the oil sector to agriculture and manufacturing sectors with a balanced emphasis on both export- and inward-oriented activities.

1.08 A priori, the diversification of Nigerian exports should not be a problem for two reasons. First, the country is relatively rich in natural resources, other than oil, such as natural gas and cultivable land suitable for a range of agricultural products. However, while the country has deposits of a number of important minerals such as tin, coal, lead, zinc, columbite, and lime, it cannot be considered, on the basis of present knowledge, rich in minerals other than hydrocarbons. Second, with the expectation of a generally 'comfortable' balance of payments situation over the next several years, as argued in the Bank's Basic Report 1/, Nigeria has the means to finance export development. The recent short-term fluctuations in the oil market do not alter the main conclusions of the Basic Report with respect to the long-term prospects of the Nigerian economy. However, they do put more pressure on Nigerian policy makers to adopt economic policies to bring about the desired structural changes in the economy (see also para. 5.05).

Non-Oil Exports Performance

1.09 Though agricultural export earnings increased in nominal terms (by over 3 percent per annum), primarily on account of price developments abroad in the seventies, their share in Nigeria's total exports continued to decline; reaching an insignificant level of about 2.5 percent in 1980. The composition of agricultural exports is now less diverse. Among the traditional exports, cocoa beans are now the only significant earner of foreign exchange. In 1979 cocoa beans accounted for more than 60 percent of the total value of non-oil exports. The export value of cocoa beans increased by about 8 percent between 1970 and 1979, from $186 million to $363 million. As shown in Table 1.2, the sustained steady increase in earnings from this commodity continues to depend primarily on price developments abroad rather than volume. In recent months the decline in the world price of cocoa has contributed to the substantial decrease in cocoa export earnings. The export volume of cocoa fluctuated considerably in the 1970s with an indication of long-term decline. The share of cocoa exports from Nigeria in total world supply has consequently declined during the same period and is now about 10 percent.

1.10 For palm kernels and rubber, the moderate decline in their export values in the seventies was solely on account of a sharp decrease in volumes. In the case of groundnuts, Nigeria used to be the world's largest exporter in the sixties, accounting for about 40 percent of the world supply. In the early seventies, however, exports of groundnuts declined drastically due to low production and high domestic demand. They were completely banned in 1975. While not entirely effective, the ban did cause a sharp fall in the export value of hides and skins as well as timber.

1/ IBRD, Nigeria--Basic Economic Report, (No. 3341-UNI), August 1981.

Table 1.2: GROWTH RATES OF MAJOR NON-OIL EXPORTS, 1961-79

	Yearly Average, 1961-70			Yearly Average, 1970-79		
	Value	Quantity	Unit V.	Value	Quantity	Unit V.
Groundnuts a/	-4.3	-6.0	1.7	-58.6	-56.9	-3.8
Groundnut Oil b/	9.9	7.8	1.9	-47.1	-53.4	13.6
Groundnut Cake	12.4	8.8	3.3	-38.3	-41.5	5.5
Palm Kernels	-6.5	-8.6	2.4	-2.0	-9.9	8.8
Palm Kernel Oil c/	-	-	-	14.4	5.1	8.8
Palm Kernel Cake	50.7	49.6	0.6	17.4	10.8	6.0
Palm Oil	-29.5	-29.1	-0.7	-5.6	-10.2	5.2
Cocoa Beans	7.8	0.5	7.3	7.7	-4.8	13.2
Cocoa Paste c/	-	-	-	19.5	-8.7	30.9
Cocoa Butter c/	-	-	-	7.6	-2.5	10.4
Cocoa Powder and Cake c/	-	-	-	46.5	12.9	29.7
Raw Cotton	-5.7	-5.9	0.2	11.0	-1.4	12.6
Seed Cotton	1.0	2.9	-1.8	-33.5	-37.0	5.6
Rubber	-2.4	0.7	-3.1	-1.2	-9.6	9.2
Tin Metal b/	47.6	38.0	6.9	-5.8	-14.5	10.3

a/ For the second period, average growth rates are between 1970 and 1977.
b/ For the second period, average growth rates are between 1970 and 1978.
c/ No exports prior to 1970.

Source: Statistical Appendix Table 2.

1.11. The contribution of manufactured and semi-manufactured goods to the foreign exchange earnings of Nigeria is now negligible (₦39 million in 1980). It accounted for about 10 percent of total value of exports in 1970 and since then has declined sharply to about 0.3 percent in 1980. Current exports consist mainly of tin metal, cocoa butter, cocoa cake, cocoa powder, and groundnut cake. Exports of tin metal together with palm oil and groundnut oil used to account for the bulk of manufactured and semi-manufactured goods exports. While exports of tin metal declined rapidly in recent years (from a level close to six thousand tons in 1974 to one-fourth of that in 1980), those of palm oil and groundnut oil have ceased entirely following the 1973 oil boom. Exports of palm oil and groundnut oil accounted for a large share of total world supplies in the early sixties (23 and 17 percent, respectively). In the case of palm oil, Nigeria has in fact gone from being an important net exporter to being a large-scale net importer (probably about 200,000 tons in 1980).

1.12 A further point to be noted is the total absence of recorded exports from major industries such as textiles and cement which at one point had seemed to be close to completely supplying the domestic market and for which the development of exportable surpluses might have appeared to be a logical next step. Nigerian manufacturing industries have not been able to keep up with the quantum jumps in domestic demand that have occured since the first petroleum boom. This makes it difficult to point to industries with immediate export potential. At present, Nigeria does not have any manufacturing industry which exports a significant proportion of its output. It should be noted that in dealing with measures to encourage industries for export markets one should not ignore in the process industries producing for domestic markets and vice versa. What is needed in Nigeria is a balance between export and 'self-sufficiency' objectives.

Existing Export Promotion Policies

1.13. Although it is frequently stated in various official documents that one of the country's objectives is to encourage non-oil exports 1/, in practice little attention has been devoted to this objective with the exception of the establishment of an export promotion agency in 1976 - the Nigerian Export Promotion Council (NEPC) - and the introduction of subsidies for some agricultural commodity exports. A few export-oriented projects were considered at one point or another but none has materialized. At present, the only export-oriented projects in the Fourth Plan are the development of a liquefied natural gas plant (LNG) and, to a less extent, the development of a petrochemical complex. While the present administration has indicated that the export potential of existing industries as well as traditional exports will be actively exploited during the Plan period, it sees its role as mainly promotional and expects the private sector to take the initiative.

1.14. Export taxation of traditional products was previously more important, accounting for about 7 percent of government revenues and 11 percent of total non-oil exports in 1970 (Table 1.1). However, following the oil boom, export taxation became totally insignificant with the elimination of most export taxes and the stagnation or decline in most non-oil export activities. Furthermore, the average tax burden (total withdrawals from potential producer

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1/ The Second National Development Plan (1970-74) stated that "Nigeria must increase her foreign exchange earnings from agricultural export" (p. 103); that "the Government must...give greater support to those industries seeking additional markets for their products outside Nigeria" (p. 144); and that the Government should "promote the establishment of industries which cater for overseas markets in order to earn foreign exchange" (p 143). The Third Plan (1975-79) indicated that "the development of export industries will be an important objective of government policy during the Plan period" (p.154). And finally, according to the Outlines of the Fourth Plan, "the federal, state and local governments will...continue to promote... increased production and processing of export crops with a view to expanding and diversifying the country's foreign exchange earnings..." (p. 19). In addition, one of "the main objectives of government policy in the manufacturing sector... will...be to...promote the development of export industries" (p. 36).

income) on cocoa, palm kernels, groundnuts, and cotton has drastically declined over time. As a percentage of producer income, agricultural export crops' tax burden ranged between 15-30 percent in the 1960s 1/, but following the oil boom and particularly after the restructuring of the marketing boards in 1977, all taxes were abolished and many of the agricultural export crops (palm kernels, cotton, and rubber) have been subsidized (see chapter 2, Table 2.3). On the other hand, there are a number of direct trade restrictions on exports, with prohibition of groundnut oil, palm oil, and lumber.

1.15 Legislation for Industrial Incentives. The primary legislation concerning industrial incentives has been the Customs and Excise Management Act (1958) and the Income Tax Act (1961 and 1971). The specific encouragement of export industries is incorporated in the Nigerian Export Promotion Council Act (1976) and the Industrial Promotion Act (1979). The policy tools used by the Government in the area of incentives include import restriction, excise taxation, price control, special fiscal incentives (including income tax relief measures and concessionary tariffs on imported inputs), the indigenization decrees, and direct public sector investment allocation.

1.16 Specifically, imported intermediates for manufacturing exports (and in some cases for domestic-oriented industries) enjoy the following duty concessions:

(i) Duty-free, or at a concessionary rate of duty, importation of certain raw materials and intermediate inputs for use in the manufacture of goods for a period not exceeding three years. The scheme is jointly administered by the Ministries of Industry and Finance and the Department of Customs and Excise.

(ii) Refund of import duties on raw materials used in the manufacture of goods that are exported. This is the purpose of the Duty Drawback Scheme. Such rebates were still being paid possibly as late as the early seventies, but today they are no longer being paid, and the general impression seems to be that the regulation has been practically a dead letter since its inception in 1958.

1.17 In addition, there are a number of incentives available to both import-substitution and export-oriented industries. These include a tax holiday for a period of three to five years provided the industry secures the pioneer status, the tax relief on interest on foreign loans and loans granted to agriculture and manufacturing, and allowance for depreciation (rates range from 5 percent to 25 percent depending on the broad categories of activities). Furthermore, refinancing facilities through the rediscounting of short-term bills have been extended to cover the export of manufactured and semi-manufactured products in addition to the traditional agricultural export

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1/ See IBRD, Nigeria - Options for Long-Term Development, the Johns Hopkins University Press, 1974, p. 172 - The tax burden includes export duties, produced purchase tax and marketing boards trading surpluses, but excludes the operating expenses of marketing boards.

commodities. In April 1979, the Central Bank transferred credit allocations for export from a less preferred to a more preferred category. Despite this, commercial and merchant banks' credit allocations for export are well below 1 percent of total loans and advances (against a requirement of 6 percent).

1.18 Other incentive measures for exports are now available but have not yet been put into practice, with the exception of the Export Development Fund. They include the following:

(i) Export Development Fund. The fund is designed to encourage private companies (whose production has at least 30 percent local raw material content or 40 percent value added) to explore foreign markets by covering some of their costs of exploration. It became operational in 1979. Recently the fund was used to finance part of the cost of an export-oriented trade mission to some ECOWAS countries.

(ii) Export Guarantee Fund and Insurance Scheme. The scheme aims at providing financial guarantees to commercial banks for insurance coverage for exports from Nigeria. This scheme, which is yet to be implemented by the Government, and the export development fund are the major programs of NEPC.

(iii) Industrial Free Zones. The Fourth Plan provides for the creation of industrial zones which will enjoy special privileges and produce entirely for export. Each zone will have adequate infrastructural facilities including power, water, and telecommunication. Imports of equipment and raw materials will be duty-free and there will be no excise duties. It is important that the choice of location of each free zone be examined carefully.

1.19 The examination of the prevailing industrial incentives system shows that the fiscal system results, not deliberately, in substantial disincentives to export-oriented activities and incentives to import substitution industries with high tariff protection 1/. The system of incentives is heavily biased against the few sectors still able to compete in world markets as well as against those receiving high government priority. In particular, industries based on domestic raw materials are accorded high priority but receive low incentives. Furthermore, there is considerable uncertainty among the business community about government regulations affecting industries in general and export activities in particular. Businessmen sufficiently interested in exporting find that ascertaining what the regulations are and interpreting them is no straight-forward matter. 2/

1/ See Bertrand, T. and Robertson, J., An Analysis of Industrial Incentives and Location in Nigeria, World Bank (mimeo), 1978 and Robertson, J., The Structure of Industrial Incentives in Nigeria, 1979-80, World Bank (mimeo), September 15, 1981.

2/ See David N. Smith, A Report on the Institutional Aspects of Improving the Climate for Foreign and Domestic Investment in Nigeria, World Bank (mimeo), November 12, 1980.

1.20 Bilateral and Multilateral Trade. 1/ While several bilateral and multilateral trade agreements (such as the one between member countries of the Economic Community of West African States (ECOWAS) and the Lomé Convention) have been concluded, they have not resulted so far in any major export of commodities from Nigeria. Since the inception of the ECOWAS agreement in 1975, several important steps have been taken, but there is still a considerable time before the agreement becomes fully operational. 2/ The ECOWAS agreement would, among other things, gradually eliminate tariff and non-tariff barriers by 1990. At present, member states have agreed not to increase the level of duties against one another's exports and that goods destined for exports within the community have to be produced in the member country (rules of origin). In addition, a member country exporting a product should have an equity share of a minimum of 30 percent (rising to 51 percent over time) in the firm producing the product in question. Table 1.3 shows that total recorded intra-ECOWAS trade is very limited, accounting for less than 4 percent of total ECOWAS world trade. 3/ Production problems (high production cost, close similarity of the types of products traded, etc.), deficiencies in the transport and communication networks, and tariff and non-tariff barriers are the main factors which explain the low level of intra-ECOWAS trade.

1.21 As of now, there are tariff and non-tariff controls on goods originating from Nigeria and going to ECOWAS countries. Almost all export duties are specific and are levied on selected goods only (e.g. live animals, bananas, hides and skins, scrap metal and slag tin). The export prohibition order of 1977 includes exports of beans, cassava tuber, groundnut oil, maize, palm oil, rice, timber, cattle and groundnuts. In addition, individual export licenses are required for exports of cigarettes, columbite, petroleum products, and products subject to control of marketing boards.

1/ The most important export markets for Nigeria's non-petroleum products (essentially agricultural products) are the United Kingdom, Germany, Netherlands, the United States, and recently France. Together they accounted for over 80 percent of total non-oil exports in 1979. Between 1974 and 1979 the share of the European Community in Nigeria's non-oil exports increased from 62 percent to 74 percent, mainly as a result of an increase in the shares of Germany and France. During this period, the relative importance of the United Kingdom as well as the United States remained unchanged, respectively around 29 percent and 11 percent. In contrast, the share of The Netherlands declined sharply to a level of 14 percent in 1979.

2/ The protocols which have so far been adopted deal with: the contributions of member states to the budget of the community; the re-exportation within the ECOWAS region of goods imported from third countries; the fund for cooperation, compensation and development; revenue; and the definition of the concept of products originating from member states.

3/ It should be noted that there is a considerable volume of unrecorded trade.

Table 1.3: ECOWAS TRADE (INCLUDING PETROLEUM)
(US$ millions)

	1964	1970	1975	1978
Nigerian Exports to ECOWAS	14	7	151	317
Total Intra-ECOWAS Trade	55	117	430	616
Total ECOWAS World Trade	1,860	2,959	12,864	17,600
ECOWAS Trade as a percntage of World Trade	2.9	4.0	3.3	1.4

Source: Mission estimates based on data from Central Bank of Nigeria and UNCTAD.

1.22. Institutional Setting. As stated in Annex 1, the present statutory system governing the promotion of exports from Nigeria is apparently centered around NEPC. The Council is envisaged to promote and bring together public and private trade interests. However, since its inception in 1976, it has been preoccupied with organizational and financial matters and, therefore has not been able to function as expected as a focal-point institution. NEPC is still facing serious difficulties in recruiting an adequate number of competent staff. The institution suffers from problems of overlap with other agencies. A better coordination between the various agencies is therefore needed. This could be done through a representation of various agencies at the Council at a high level so as to enable the Council to take concrete decisions. Firm commitments and follow-up actions by the various agencies are also of crucial importance.

1.23 To date, NEPC has, nonetheless, undertaken some major first steps. It established a committee to simplify the country's trade procedures and it undertook a survey on export potential of Nigerian products particularly to ECOWAS countries. The survey is meant to be a first step in a series. The second step would be to identify export markets where a potential for exports from Nigeria exists. This is an important step since trade information is not readily available in Nigeria. The third step would be to develop a time-phased plan to ensure that exports take place. The institution also proposed a package of export incentives which is largely not yet operative. One important institution which has yet to be established is a trade information center.

1.24 In addition to NEPC, there exist a number of other institutions which are directly or indirectly engaged in trade-related activities. The most important of all is the Federal Ministry of Commerce which is the body really in charge of trade policy formulation. The Commodity Boards, which are under the responsibility of the Federal Ministry of Agriculture, are in charge of crop marketing and exports. The Federal Ministry of Industry is in charge of identification and development of export-oriented industries, but so far its contribution has been limited to implementing the export incentives system. The working relationship between all institutions concerned with export developments is virtually nonexistent.

CHAPTER 2

CONSTRAINTS ON AND REMEDIAL MEASURES FOR AGRICULTURAL EXPORTS

2.01 There is no doubt that agriculture (food and export crops), a sector which provides a living for more than two-thirds of the population, performed poorly in the 1970s (Table 2.1). The problems of agriculture are well known and have received much attention and discussion both in Nigeria and at the World Bank. In view of this, it will be sufficient to review briefly some of the main constraints on export crop production that have been identified in order to provide background and perspective for the subsequent discussion on the remedial measures adopted by the Federal Government.

Table 2.1: NIGERIA: PRODUCTION GROWTH RATES OF PRINCIPAL CROPS, 1962-80
(percentage)

	Yearly Average		
	1962-70	1970-80	1962-80
Foodcrops			
Maize	9.0	1.8	4.9
Sorghum	-0.9	-0.1	-0.4
Millet	1.1	1.0	1.3
Rice	3.6	12.1	5.9
Yam (roots & tubers)	2.4	1.4	1.8
Cassava	4.1	0.8	2.2
Traditional Export Crops			
Cotton	12.9	-10.4	-0.7
Groundnuts	-2.4	-9.7	-6.5
Cocoa	6.7	-5.4	-0.2
Palm Oil /a	0.9	2.3	1.6
Rubber	0.6	-0.9	-2.1

/a FAO's figures for palm oil production have been criticized in the Bank's recent report "Oil Palm Sub-Sector Review", July 1981.

Source: Statistical Appendix Table 1.

Production Constraints

2.02 Production constraints can be divided into two categories: those which affect all export crops generally and those which are crop-specific. In the former group can be mentioned, not necessarily in order of importance, high cost of labor, unreliable supply of inputs, poor or nonexistent extension service, lack of infrastructure, inadequately developed credit institutions, marketing boards policies, and the traditional system of land tenure. The second set of constraints comprises factors such as drought and disease.

2.03 General Constraints. The shortage (in some parts of the country) and high cost of labor affect both annual and tree crops. Groundnuts and cotton, for instance, have fairly high labor requirements for cultivation. Groundnut shelling also requires a lot of labor when done manually. The drift of young able-bodied workers from rural to urban centers following the oil-induced construction boom was exacerbated by the introduction of universal primary education, leaving many smallholdings in the hands of older workers.

2.04 Information on unskilled wages in the oil palm subsector, presented in Table 2.2 below, suggests that Nigerian wages are well above average wages in other countries with significant oil palm sectors. For example, daily wages expressed in U.S. dollars at the official exchange rate range from $5.90 to $9.10 in Nigeria compared with $2.30 to $3.60 in Malaysia. Therefore, the viability of oil palm harvesting and milling in Nigeria will certainly be threatened without the current high degree of protection in the form of quantitative restrictions on palm and other vegetable oil imports.

Table 2.2: COMPARATIVE UNSKILLED WAGES IN THE NIGERIAN OIL PALM SECTOR, 1980

Country	Wage ($/day)
Indonesia	1.9
Malaysia	2.3-3.6
Brazil (Amazon region)	3.1
Cameroon	3.8-5.1
Ivory Coast	6.4
Ghana	10.9 (at official exchange rate)
	1.2 (at unofficial exchange rate)
Nigeria	7.3-9.1
	5.9 (minimum)

Source: Oil Palm Sub-Sector Review, July 1981.

2.05 The use of improved seeds or planting materials, fertilizers, pesticides and farm implements on smallholdings is limited. The main reason is the lack of supply of these inputs, and problems associated with applying modern inputs to smallholdings in a traditional agricultural system. Procurement and distribution of seeds/planting materials and chemicals is very deficient. Fertilizers, for example, are imported in bulk by the Central Fertilizers Unit and distributed at a highly subsidized price through the Ministry of Agriculture of each state. Even with the relatively small amounts that are actually handled, supplies frequently fail to reach smallholders needing them. Some amount of fertilizer is exported illegally to neighboring countries.

2.06 The emphasis of agricultural research in Nigeria up to 1975 had been on export crops - cocoa, oil palm, rubber, groundnuts and cotton - but the research undertaken during this period by various research institutes has been criticized for lack of coordination and direction. 1/ The low priority accorded to "agro-economic-research" on the problems facing most smallholders has been cited as an example. Although the quality of the agronomic research was generally considered to be of a high order, it was based largely on achieving technical optima without regard to economic efficiency considerations. Another defect of the early research institutes was a lack of specific guidelines in the ordinances and acts establishing them, which meant that research was not always consistent with national objectives. 2/ The first clear attempt to specify the functions of the institutes came in the Research Institutes (Establishment) Order of 1975 which directed crop research institutes to engage in breeding, agronomic and entomological research, and crop utilization studies. But this general statement failed to set priorities for the institutes.

2.07 The absence of an effective extension service has been a major obstacle to the dissemination of new or improved technology to smallholders.3/ Agricultural extension was the responsibility of each state's Ministry of Agriculture until 1978 when it was transferred to local governments. The complaint was that the state Ministries of Agriculture had too many other functions tending to detract from their extension responsibilities. As a solution to the problem of communication between the smallholder and the research worker, an earlier World Bank mission recommended creation of a national extension research liaison section in the then Federal Ministry of Agriculture and Natural Resources (now Federal Ministry of Agriculture and Rural Development), with units to be located at major research centers to work in close collaboration with research and extension workers. 4/ This recommendation was not adopted and instead, extension became in principle the

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1/ Agricultural Sector Survey, Report No. PA-115(a), Annex 3, p. 14.

2/ F. Idachaba, Agricultural Research Policy in Nigeria, p. 18.

3/ O. Awoyemi, "Problems of Agriculture in Nigeria", Paper presented at the Seminar on Agricultural Finance in Nigeria, April 1981, P. 6.

4/ Agricultural Sector Survey, Report No. PA-115 (A), p. 16.

responsibility of local governments, but in practice it is still the responsibility of the Ministry of Agriculture. As an example of the grossly inadequate extension personnel situation in Nigeria, the extension worker-farmer ratio stands at about 1:5,000 instead of the preferred ratio of 1:800. 1/

2.08 The lack and inefficiency of rural infrastructure, particularly transportation, has posed a serious bottleneck in marketing smallholder crops. Transport costs from collection point to port have been estimated to range between 30-40 percent of total marketing costs for cotton, 35-55 percent for groundnuts, and at least 20 percent for cocoa (since the main cocoa growing areas are in closer proximity to ports). 2/ The inadequacy of transportation also hampers the distribution of farm supplies or inputs.

2.09 The bulk of smallholder credit comes from traditional sources since access of smallholders to formal credit institutions is extremely limited. The principal forms of the informal financial activities are the mutual savings and loan associations as well as the money lenders (mainly in the southern part of the country). Loans are typically small, very short-term and often carry exorbitant interest rates (several times the official interest rate). While these rates are probably a realistic reflection of the risks that are involved in lending without collateral, they are a serious constraint on farmers' ability to purchase required inputs and tools.

2.10 Although the original objective in establishing the marketing boards was to stabilize producer prices and to improve the marketing organization, the boards were principally used as a convenient instrument for taxing agriculture through export and production sales taxes. The emphasis on raising revenues resulted in producer prices being set well below (about half) the unit value of exports. This invariably meant that smallholders received only a small fraction of the export price and that there was little expansion of the tree crops' production capacity through investment in new planting and replanting. The effect of producer prices policy on the traditional annual export crops varied from crop to crop. More recently taxes have been abolished and producer prices increased. But, because the increase in prices received by export crop producers has been far below the increase in prices received by workers in construction and trade activities and by food crop producers, many smallholders have found it more remunerative to allocate part of their time and scarce resources to off-farm activities as well as to the cultivation of food crops (which are protected by import controls) rather than export crops.

2.11 Land in Nigeria is now, in principle, publically owned. In practice, however, this varies across the regions. In the northern states, land is owned by the state and tenure is on the basis of customary usufruct. In the coastal states, land is owned by the village or individuals. This land tenure system discourages individual investment in conservation and land improvement as it is difficult for a smallholder to obtain loans using his land for security.

1/ Awoyemi, op. cit., p. 7.

2/ Agricultural Sector Survey, Report No. PA-115(A), p. 18.

2.12 Crop Specific Constraints. While some of the decline in recorded exports of groundnuts and cotton may be more apparent than real (given the smuggling of these crops into neighboring countries), production of both commodities was adversely affected by the sahelian drought which was especially severe in 1973-74. This was followed in 1975 by the appearance of rosette virus in the main groundnut growing areas which virtually decimated the groundnut crop for a period of time. The tree crop sector on the other hand was seriously affected by the civil war (1967-70). During the war all rehabilitation and new plantings of oil palm and rubber ceased, while many existing palm groves and rubber stands were destroyed or abandoned.

Remedial Measures

2.13. To encourage greater production of export crops, a number of remedial measures have been taken by the Federal Government including the reorganization of the old regional/states marketing board system into crop-specific commodity boards, the introduction of large-scale/mechanized farming, and expansion of institutional credit facilities.

2.14. Commodity Boards. In place of the old marketing boards, six new commodity boards for cocoa, groundnut, cotton, palm produce, rubber and grains were established in 1977. 1/ A principal objective of the new commodity boards is to encourage greater production through raising producer prices paid to smallholders. The newly constituted boards no longer enjoy monopsonistic powers since it is no longer mandatory for producers to sell to the boards or their agents, but the boards retain monopoly rights over exports.

2.15. With the exception of cocoa, rubber, palm kernels and palm kernel oil for which there is relatively little domestic demand, the boards have done little actual buying, despite the claim that producer prices are being kept higher than comparable international prices. This view, which seems to be shared by many officials, is not consistent with the facts. What appears to be true is that f.o.b. prices for some export crops (palm kernels and groundnuts) in nominal terms have recently fallen below so-called "domestic prices" (obtained by adding to actual farmgate prices the marketing and transport costs incurred by the boards). This subject was considered at some length in the 1979 Agricultural Sector Review. In that report, it was pointed out that for 1977 in certain cases (cocoa and groundnuts) the equivalent of a tax was levied on the producer, and in others (palm kernels, cotton and rubber) a producer subsidy was given.

2.16 A comparison between domestic prices and export unit values of various export commodities for 1980 is presented in Table 2.3. The table indicates that, at the official or adjusted exchange rate 2/, subsidies were given to all export crops but cocoa.

1/ Most of these boards have the responsibility of more than one commodity. The roots and tubers board was abolished in 1979.

2/ The official exchange rate was corrected by the standard conversion factor. The latter is an estimate of the weighted average trade distortion in Nigeria.

Table 2.3: SUBSIDY/TAX ON EXPORT CROPS, 1980
(₦ per metric ton)

	Financial (₦1=$1.81)		Economic a/ (₦1=$1.50)	
Cocoa				
Producer price	1,300		1,300	
Marketing & Transport	190	1,490	190	1,490
Export unit value		1,757		2,120
Subsidy (-)/tax (+)		267		630
Seed Cotton				
Producer Price	400		400	
Marketing, processing and transport	211	611	211	611
Export Parity Price: seed	91		48	
Import Substitution price: lint	392	483	583	583
Subsidy (-)/tax (+)		-128		-28
Palm kernel				
Producer price	200		200	
Marketing & Transport	366	566	366	566
Export Unit Value		165		199
Subsidy (-)/tax (+)		-401		-367
Rubber (RSS 3)				
Producer price	755		755	
Marketing, processing and transport	402	1,157	402	1,157
Export unit value		750		905
Subsidy (-)/tax (+)		-407		-252
Groundnut				
Producer price	420		420	
Marketing, processing and transport	137	557	137	557
Export parity b/		365		440
Subsidy (-)/tax (+)		-192		-117

Source: For producer prices and marketing and transport costs see Central Bank of Nigeria. For export unit values see FAO.

a/ Based only on the correction of the exchange rate by the standard conversion factor.

2.17 In view of the apparent inadequacy and inefficiency of the commodity boards, the question as to whether Government should withdraw from marketing--or reduce and modify its role--and allow the private sector to play a greater and more formally recognized role than it currently does is relevant.

The issue of marketing efficiency has in fact been raised in earlier Bank reports on Nigeria. There is a broad consensus that the private marketing system in Nigeria is relatively efficient and that it is unlikely that statutory marketing bodies can, in general, produce lower operating costs or more astute marketing strategies than result from the operation of the private sector. A recent Bank report 1/ recommended that boards should concentrate on improving market intelligence and on providing technical assistance on storage and handling methods rather than on performing an interventionist role. The mission is in agreement with this assessment and recommendation and would like to emphasize that, unless the fundamental issue of marketing inefficiency is taken seriously and corrective measures are taken, Nigerian export crop production will remain less than satisfactory.

2.18 Large-scale/Mechanized farming. It has been a tendency of many Nigerian agricultural planners and administrators to equate machine technology with modernization and as a means of reducing the tedium of manual operations -- making it more attractive, thereby, for labor to remain on the farm or smallholding. Lately, there has been some rethinking in official circles on the direction that large-scale/mechanized farming should take. The Federal Government acknowledged that its policy of undertaking large-scale farming directly has not been an "unqualified success". 2/ Most large-scale government farms are said to be plagued with problems arising from mismanagement, over-centralization and lack of supervision. It has also been shown on the basis of crop budgets that, under average conditions, mechanized production for maize, cotton, and groundnuts in Nigeria is not economically viable when world prices are used. 3/ Despite this, the mission was informed of plans by the Cotton and Groundnut Boards to undertake large-scale/mechanized cultivation of cotton and groundnuts. Results in Nigeria and elsewhere in Africa indicate the importance of encouraging oxen cultivation as a more appropriate means of improving traditional practices of small-scale farmers than the use of heavy machines. However, this does not mean that there is no need to introduce some form of mechanization with a view to facilitating cultivation over larger areas.

2.19 The current emphasis under the Fourth Plan is to encourage private entrepreneurs to establish large-scale farms. Government involvement in direct production is to be restricted to equity participation in commercial joint ventures with the private sector. To encourage foreign participation in agricultural production, foreign partners can now own up to 60 percent of the equity in an agricultural project. It is still too early to know what the response of the private sector and foreign investors will be.

1/ IBRD, Agricultural Marketing and Prices in Nigeria's Green Revolution, May 1981.

2/ Outline of the Fourth National Development Plan, 1981-85.

3/ Agricultural Sector Review, 1979.

There are already indications that at least one potential foreign investor has been discouraged by the difficulty of finding suitable land, notwithstanding the Land Use Decree of 1978. 1/

2.20 A question that needs to be raised here and one which was also addressed in the recently completed Oil Palm Sub-Sector Review concerns choice of agricultural development strategies, i.e. estate production versus the smallholder system of production. The systems are not mutually exclusive, each having certain advantages (estates for their "cost-effectiveness" and smallholdings for their "resilience"), and as a practical measure it is prudent to have a mix of both systems, including a hybrid one that combines features of the two. The merits of a hybrid system that seems compatible with the existing system of land tenure in Nigeria are examined in Chapter 5 (paras. 5.17-19).

2.21. Institutional Credit. The Federal Government is the most important source of institutionally-provided credit. It contributes funds to institutions such as the Nigerian Agricultural and Cooperative Bank (NACB) and the Agricultural Credit Guarantee Scheme (ACGS). A second source of credit is state agricultural credit corporations. The bulk of the funds of these corporations is provided by the state governments. Such funds have, however, been very limited in amount. Other sources of funds for agriculture include commercial banks, merchant banks and cooperative societies. Although commercial banks are required by law to lend a certain percentage out of their portfolios to farmers, it is still normal practice for these banks to require formal legal title to land as collateral.

2.22. The institutional credit programs have by and large been of little assistance to smallholders in general. In spite of the NACB and ACGS, it is estimated that less than 10 percent of small farmers' demands for credit are actually met. NACB, ACGS and other lenders have tended to favor large producers who are better educated and are well placed to take advantage of the available facilities. It is well known, for example, that the bulk of the credit given out under ACGS has gone into poultry production because this subsector is dominated by big farmers who are mainly urban dwellers.

2.23 Since access to banking institutions is believed to be the relevant borrowing constraint compared to credit cost, it is recommended that rural branches of commercial banks be expanded. In addition, rural branches should induce rural households to use money and to hold their savings in the form of deposits. The most attractive incentives to bring these savers into the banking system would be to offer attractive returns on their savings and to offer the privilege of borrowing, for example, by introducing a mutual savings and loan scheme.

1/ The 1978 Decree was enacted to facilitate acquisition of contiguous tracts of land for large-scale agriculture. Under the Decree, all agricultural land is vested in the state of Nigeria. State governments and local councils have certain functions in allocating leasehold rights. However, in practice the Decree has had little or no impact on the system of land tenure to date.

CHAPTER 3

CONSTRAINTS ON AND INCENTIVES FOR MANUFACTURING EXPORTS

3.01 Factors working against the emergence of manufactured goods exports can be grouped under four general headings: (i) deficiencies of the general policy environment which have adversely affected the structure of incentives; (ii) a tendency for decision-makers in government and business alike to overlook export development possibilities and the means to their realization; (iii) supply-side difficulties, chiefly of an infrastructural and human resources nature, which have emerged or taken on new importance because of the heavy demands placed on infrastructure by oil-boom-fueled demand, but which have been exacerbated to some extent by the deficiencies in the general policy environment; and (iv) specific deficiencies of design and implementation in the Government's export promotion policy.

Policy and Export Awareness

3.02 General Policy. Trade (prohibitive tariffs, quotas enforced through the licensing system, import bans, etc.) and exchange rate policies have allowed serious divergences to develop between prices and opportunity costs, so that consumers and producers receive incorrect price signals. The structure of protection and degree of currency overvaluation are such that value added at domestic prices exceeds value added at world prices by large margins for many activities and falls short of value added at world prices for many others. Efficient manufacturing activities are thereby discouraged, and yet these are likely to be the ones with long run export potential.

3.03 Overvaluation of the Naira necessarily places Nigerian goods at a significant cost disadvantage relative to foreign goods in foreign markets. In the home market, the overvaluation of the Naira can be offset by high protective duties or outright bans on imports of competing goods, although such measures are not always effective (witness the recent invasion of the Nigerian market by illegally imported textiles) nor desirable on grounds of efficiency. In foreign markets, the overvaluation of the Naira can be offset by export subsidies, but currently this is not being done. (For further details see para. 5.05).

3.04 Currency overvaluation, price controls, and restrictions on imports and exports have created an unofficial market in goods and foreign currencies into which people's time and energies have been diverted. The general policy climate has fostered a situation in which labor is drained from the agricultural sector. The effective supply price of labor to this sector is raised above what it otherwise would be.

3.05 Awareness of Export Possibilities. The failure thus far to design and implement adequate export promotion measures, in spite of growing recognition in government circles of the need to expand non-oil exports to lessen Nigeria's high degree of dependence on oil revenues, suggests that a sense of

urgency is somehow lacking. The reason for this lack of urgency is no doubt the comfortable balance of payments position on average which Nigeria has been enjoying since the 1973 oil boom. However, the vulnerability of Nigeria to downturns in the demand for its oil, as demonstrated by the difficulties experienced in 1977-78 and at the present time, and the Government's tendency to maintain a very high rate of spending suggest that the balance of payments situation is not really all that comfortable. According to our recent projections of the balance of payments (paper presented at an April 1982 seminar in Lagos), foreign exchange requirements for a sustained economic growth of 4 percent a year clearly cannot be met by the present structure of exports. Even by taking a low import elasticity with respect to GDP (close to unity), additional external resource requirements would have to be quite substantial during this decade. Thus, a serious effort at export diversification needs to be made in the immediate future.

3.06 Another important factor is an unwarranted belief on the part of many government officials and businessmen that domestic demand must first be satisfied before exporting activity can begin. This belief originates from the pronounced policy goal of "self-sufficiency". Such a belief tends to encourage policy steps aimed at import-substitution at the expense of export-oriented activities. Such policy steps ignore the possibility of specialization within an industry, according to comparative advantage, and can therefore rule out concentration of investment in many sectors and subsectors which might be good candidates for export-oriented expansion. The result is that while non-oil exports expansion in principle may be accepted as a worthwhile policy goal, and even accorded a degree of urgency, promotion of exports from particular sectors may not be seriously considered nor will general measures tending to promote exports from relatively efficient sectors in general.

Cost of Labor and Labor Productivity

3.07 Trends in real wages. It is often asserted that high labor costs coupled with low labor productivity are a significant factor in explaining the cost disadvantage of Nigerian manufacturing industry in export markets. In assessing the validity of this contention, it should be noted that wages in Nigerian manufacturing do not appear to have risen in real terms over the period 1962-79. The tendency during the 1960s for money wages to outpace the rise in consumer prices reversed itself after 1968, and by 1976, the real wage in manufacturing was apparently only slightly higher than it had been in 1962. Although we do not possess direct information on wages in manufacturing beyond 1976, real wages in manufacturing by 1979 were probably well below their 1962 levels, assuming that wages in manufacturing followed the government minimum wage downward (in real terms) from 1975 through 1979. The view that manufacturing sector wage levels are largely set in relation to wages in the public sector is tested with the data from Table 16 of the statistical annex.

3.08 Since 1979, however, the goverment minimum wage in real terms has increased sharply. A series of increases in the minimum wage - from ₦60 per month in 1979 to ₦100 per month in 1980 and, most recently, to ₦125 per month - has resulted in a significant increase in the real wage, which brings it up well above the level of the early 1970s. This should be kept in mind in assessing the comparisons between wage costs in Nigeria and elsewhere, since the numerical comparisons given in this report are mostly for 1978.

3.09 It should be noted that the data discussed here may overstate the tendency for the real wage in manufacturing to decline during the 1970s (or may even mask a rising tendency). Indeed, in the late 1970s, firms anxious to retain labor managed to get around government imposed wage ceilings by increasing fringe benefits and granting generous merit increases. 1/

3.10 It seems unlikely, however, that the recent real wage increases can be sustained. Domestic food prices rose in anticipation of the latest increase in the minimum wage, wiping out part of the workers' gains in advance. At the same time, money wage costs to employers will now be higher. It is doubtful that employers producing manufactured traded goods will be able to pass the increases on fully in the form of higher prices to consumers. Thus the real cost of labor to manufacturing sector employers (the money wage divided by the price of manufactures) will have risen further than it has already, even though price increases in general may be expected to rapidly erode workers' nominal gains.

3.11. Wages in other sectors may adversely affect some industrial branches through influencing the price or availability of key inputs into the manufacturing process. In particular, it could be noted that some key export-oriented manufacturing activities (e.g. palm oil milling and tin smelting) depend ultimately on associated "upstream" activities in the agricultural or mining sector for their viability. If high wages in agriculture or mining render these activities non-viable, then the corresponding manufacturing activities will be adversely affected.

3.12. The rising "real cost of labor" to employers in manufacturing over the period 1965-76 suggests that, in spite of high rates of effective protection in many industries, profit margins in manufacturing as a whole seem to have been under increasing pressure over this period. Downward pressure on domestic market prices of manufactured goods relative to labor costs and prices in general might possibly have been expected for a number of industries on balance disfavored more than favored by the structure of protection. This is so since it is possible that for the manufacturing industry as a whole, net effective protection has been declining as a result of larger illegal import trade in certain branches (e.g. textiles) bringing downward pressure on domestic prices.

3.13. High cost of expatriates. Managerial and technical skills that are not widely available locally in West Africa are very costly. Elsewhere in West Africa, they are known to command as much as three times in salary and allowances (much of this, of course, to offset the higher cost of living) what they would receive in their country of origin, and to cost as much as $90,000 a year. If high-level managerial and technical personnel command similar levels of remuneration in Nigeria (recent observations suggest that this figure is on the lower side), one managerial level employee (Nigerian or expatriate) would be paid as much as about 20 unskilled workers earning the minimum wage plus fringe benefits.

1/ Bernard Decaux, Nigeria: A Partial Review of the Industrial Sector, World Bank (mimeo), June 1979.

3.14. Cost, turnover and productivity of labor. Unskilled labor in Nigeria commands a wage which is high in comparison to most less developed countries, including some other African countries. Allowances and other fringe benefits may add as much as 60 percent to the minimum wage, bringing the total cost per worker to ₦2,400 a year. In addition, many workers in manufacturing and construction, especially those with some experience, are paid well above the minimum wage. As indicated in Table 1 of Annex 2, a comparison of wage rates (at official exchange rates) in some Nigerian textile mills with those in four other African countries shows that average annual labor costs per employee in Nigeria for the years 1979-80 were considerably higher than those in two countries of the sample, marginally higher than those in a third, and were exceeded in only one case. Furthermore, it is likely that labor costs per kilogram of finished cloth produced in Nigeria are higher than those in a number of textile mills in other African countries.

3.15. Labor productivity is said to be low by developed country standards,1/ but opinions on this differ, as well as on the extent to which low worker productivity is due to the use of less capital-intensive methods of production, operation at considerably less than full capacity due to deficient demand in some cases or as is more generally the case, supply side constraints, over-hiring, or perhaps management deficiencies.

3.16. The deterioration of living conditions: poor housing, lack of water, power failure, overcrowded transport and traffic congestion resulting in long commutes to work (up to several hours daily) is more severe in Lagos than in other Nigerian cities. It obviously must exercise an adverse effect on the physical condition of labor in Nigerian manufacturing, certainly in Lagos and to a lesser degree elsewhere. In Lagos, workers typically arrive tired at the work place after a long journey. Growing exhaustion leads to absenteeism and eventual resignations. This is reflected in the high rates of turnover.

3.17. In general, the managers we interviewed differed considerably in their assessments of the cost and productivity of labor. In Nigeria, it did seem clear, however, that labor-intensive processes tended to require more supervision than capital-intensive processes and that people with the requisite

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1/ In one case, it was asserted that the productivity of a worker in construction ("steel fixings"- reinforcing bars) was about 20 percent that of a similar worker in the U.K. In the U.K., it was said, a man would fix about 5 tons a week, but in Nigeria as little as one ton. In another industry, it was said that Nigerian workers learned readily, and quickly reached standard levels of productivity.

ability are in short supply. 1/ The net result is to dispose firms towards capital-intensive investments, to economize on labor in general and supervisory personnel in particular. (The overvaluation of the Naira, low rates of duty on capital equipment and low interest rates also serve to encourage the tendency to choose labor-saving, capital-intensive techniques.) This is not always true, however. In the case of one firm, labor-intensive methods of product inspection and packaging were being used because maintenance and operation of sophisticated machinery for these purposes were judged to pose too many problems to be practicable at present.

3.18. Labor turnover tends to be high, although this varies considerably from industry to industry (ranging from as low as 5 percent to as high as 90 percent), and depends, in addition to the factors noted earlier, on the wage rate paid and the availability of other kinds of work in the area (Table 3.1). There is also some evidence from the various discussions in Nigeria that the high labor turnover is also due to the difficulty that unskilled workers find in adjusting to regular schedules and industrial working conditions. Three of the firms visited by the mission indicated labor turnover to be of significant dimensions. One of these was located in the Lagos area where turnover might be expected to be high because of the availability of a wide range of alternative employment opportunities. Another was located in an inland area in which, however, construction activity was at a high level, attracting workers away from it with very high wages for short-term assignments. The third firm noted that suitable replacement labor was readily recruited and quickly trained. The cost implications of high turnover rates clearly differ from one firm to another. The management of a motor vehicle assembly firm finds that assembly line workers can be trained on average in about four weeks' time (about the same time as is required to train a worker in U.K. to do the same job). But in textiles, it takes at least six months to train a worker as a weaver or a spinner. Weavers and spinners are consequently paid somewhat above the minimum wage in textiles. 2/ In spite of this differential, skilled labor in textiles is apparently hard to retain.

1/ There appears to be an acute shortage of qualified labor for technical supervisory and managerial positions for which a substantial amount of "hands on" experience is essential. The situation is exacerbated by the system of expatriate quotas which is designed to promote the rapid Nigerianization of the modern sector of the economy, although some firms clearly find it easier to work within the constraints of this system than others and the high cost of bringing in expatriate personnel in terms of housing and cost-of-living allowances would seem to impose limits on their extensive utilization in any case. Qualified Nigerian personnel command high rates of remuneration and are able to demand rapid promotion, to such an extent that Nigerian personnel may tend in some cases to be promoted too rapidly to acquire the practical "hands on" experience necessary to be able to effectively supervise those working under them.

2/ They were paid ₦3.50 and ₦4.00 per day, respectively, versus a minimum daily wage of ₦2.90 in one firm in 1978; and ₦3.00 per day for skilled workers versus a minimum wage of ₦2.30 in another in 1979 (see Decaux, p. 149).

Table 3.1: ANNUAL LABOR TURNOVER IN SELECTED INDUSTRIAL FIRMS, 1977-78 AND 1980 a/
(in percentage)

1.	Aswami Textile Industries	40
2.	Afprint	30
3.	Nichemtex (synthetic textiles)	7
4.	Nigerian Textile Mills	57
5.	Nigerian Breweries	50
6.	EPE plywood	5
7.	Acceptance Engineering (concrete blocks)	90
8.	Vegetable Oil (Nigeria) Limited	29
9.	Nigalex (aluminum extrusions)	13
10.	Leyland Nigeria	
	end of 1980	20-25
	May 1981	10-14
11.	Costain, furniture division, 1980	b/

a/ One through nine from Decaux, op. cit, p. 23.

b/ No significant difference between turnover in manufacturing side with that in U.K.

Infrastructural Deficiencies

3.19. Deficiencies in publicly provided infrastructure, especially in power distribution, have led firms to make compensating investments in order to avoid suffering unacceptable high production losses and equipment damage. Investment to compensate for infrastructural deficiencies obviously adds to capital costs and the need to make such investment may thus be an important factor in helping to explain the low competitiveness of Nigerian manufacturing relative to that of other countries. However, the question to be examined is by how much capital costs are in fact increased.

3.20. A number of examples cited by Decaux (1979) 1/ emphasize production losses due to deficiencies in infrastructure. These can indeed be serious.

1/ According to Decaux's report (p. 61) one large textile firm with a capacity of 4,800 tons per year under normal conditions produced only 2,179 tons in 1978 "mainly because of power failures". A vegetable oil firm in the same year ended up paying for considerable overtime to catch up on production time lost to power cuts. An aluminum extrusion mill lost one third of production in both 1977 and 1978 due to power supply difficulties. In 1978-79 another large textile firm, according to a published report, had its sales reduced by about ₦3.5 million due to a combination of power cuts, high labor turnover and sluggish demand for its product. To cope with the power cuts, the company decided to install power generating plant costing ₦1.6 million.

Power failures and widely fluctuating voltage are particularly costly in terms of lost production and damage to machinery. The mission learned from one company that at one point NEPA, the national power company, "crossed phases over" causing motors to run backward and as a result, many motors in one large company in the Lagos area were burnt out.

3.21. The natural reaction by a firm facing such losses, given that a rapid improvement in public power provision is not anticipated, is to invest in standby generator capacity. Many firms, since the inception of power supply difficulties in 1977-78 (due apparently to an overloading to NEPA's distribution capability by rapidly growing demand at that time), have done this, and today some run their generators on a continuous or nearly continuous basis. This is the case for most of the members of the Manufacturers' Association of Nigeria. Not all firms, however, are able to cope in this way. The aluminum extrusion mill which lost 30 percent of its 1977 and 1978 output is an example of an industry using large amounts of power for which separate generating capacity would not be possible on the scale required. 1/

3.22. The effects of power cuts, in terms of production losses, can be very dramatic, but the ultimate effect on costs, once steps have been taken to minimize the impact of power cuts and of unpredictably fluctuating voltage by investing in standby generators and transformers, may not be all that great and seems to vary considerably from industry to industry (Table 3.2). The cost-raising effect (excluding operating costs) of infrastructural deficiencies is taken as roughly proportional to the percentage amount by which fixed capital investment has had to be increased to compensate for them. The amount of extra electricity generating plant investment as a percentage of total investment varies considerably. Additional investment in electric generators ranged from about 3 percent of total fixed capital investment in the case of one motor vehicle assembly plant which, incidentally, does not have to run its standby generator very frequently, to about 19 percent of fixed capital stock for a glass containers factory which cannot tolerate large voltage fluctuations and for which a disruption of the production process would be extremely costly.

3.23. The effect on costs measured in this way can be seen also to vary with the capital-intensity of the enterprise. While the capital expenditure on generators for the cement plant is somewhat greater in absolute terms than that of the glass containers factory, as a percentage of total capital outlay the cement plant's generator investment is considerably less than that of the glass products industry because the capital/value added ratio in cement production is so much higher than that in the glass products industry (2.6 compared to 1.2).

1/ An aluminum extrusion mill visited by the mission had spent approximately N1.5 million on a large generator (3,000 kVA) to be used as on a standby basis for one part of the plant only. The same firm, to cope with unacceptable fluctuations in voltage from the NEPA system, could invest in a large transformer which would enable it to tap into the higher voltage part of the power grid systems, but such a transformer would cost N2 million.

3.24. Other infrastructural deficiencies which are often mentioned as causing problems for Nigerian industry and raising production costs occur in the areas of water supply, transport, and communications. While many firms sink their own boreholes, as the glass products firm has done, others truck water in from nearby rivers and lakes, as one motor vehicle assembly plant does. (In the case of the latter firm, a water shortage in 1980 had led to layoffs of some workers.) The capital cost of the boreholes for the glass company is fairly minor as a share of total fixed capital stock, and we may expect this to be the case for other firms as well. Firms also find it necessary to invest heavily in vehicles to cope with inadequacies of the telecommunications network. The glass containers firm maintained a large fleet of vehicles apparently mainly for this purpose. The real cost, however, of the telecommunications system inadequacy may be in terms of the loss of highly paid executives' time spent in transit to accomplish business which in some other countries could be done over the telephone.

3.25. Slowness and unreliability of shipping and port clearance make it necessary for most firms to hold fairly large inventories. Typically, several months' worth of parts and spares are held by a Nigerian firm when a few weeks worth would suffice elsewhere. The need to hold large inventories can result also in construction of large storage facilities and warehouse space as occured in the case of the glass containers firm.

3.26. Port clearance problems are apparently not universal, however. One motor vehicle manufacturing plant located inland seemed to have no problems with imports of raw materials and parts. Containerized shipping has minimized problems of pilferage, and the company has familiarized itself with the port clearing process so as to get things expedited with a minimum delay. It is estimated by this firm that to ship and clear cargoes from the U.K. through the docks took 20 days on average. In general, shipment from overseas and port clearance had turned out better than this firm's management had anticipated. Apparently, they had not experienced the need to hold inventories of parts and spares beyond levels normal in Europe.

3.27. In appraising the extent to which costs are raised by the need to cope with infrastructural deficiencies, not only capital costs but operating costs are relevant as well. In the case of generating equipment, the cost of fuel and maintenance should be taken into account, but data were not available. In some cases, firms which generated their own power were required to pay NEPA for the electricity generated just as if it had come from NEPA. The general rule on whether or not a firm has to do this seems based on whether it makes only occasional use for emergency purposes of its generating equipment (in which case there is no charge) or runs it continuously in lieu of NEPA generated power. It is this rule which is keeping one large company, which was visited, from increasing its already substantial standby generating equipment investment to the point where it would be completely independent of NEPA supplied power.

Table 3.2: EXTRA INVESTMENT REQUIRED TO COMPENSATE FOR INADEQUACIES OF PUBLIC INFRASTRUCTURE

	Total Extra Investment (million of ₦)	Estimated Total Fixed Capital Stock (million of ₦)	Extra Investment as % of Total Fixed Capital Stock
Glass Containers Factory	6.60	23.00	28.6
Trucks, motor vehicles	a/		n.a.
Generators	4.29		18.6
Boreholes	0.16		0.7
Warehouse space	0.65		2.8
Storage facilities for fuels	1.50		6.5
Cement Works	n.a.	159.00	n.a.
Generators	7.00		4.4
Motor Vehicle Assembly Plant	n.a.	42.50	n.a.
Generators	1.30		3.1
Fleet of trucks to transport water	b/		n.a.
Textile Factory	n.a.	12.00	n.a.
Generators	1.20	12.00	10.0
Aluminum Extrusion Factory	3.50	n.a.	n.a.
Generator	1.50		n.a.
Transformer (projected)	2.00		n.a.

a/ Thirty-five cars and vans were needed to compensate for poor communications where one car would suffice in Japan, according to the company official interviewed.

b/ Not quantified, but substantial.

Source: Mission estimate.

3.28. The profitability of the investments which firms must make in Nigeria to cope with infrastructural deficiencies is undoubtedly very high (It could be even higher if firms can rely on grid power.) In the case of one textiles firm, for example, a ₦1.6 million investment in generating plant could be expected to save the greater part of ₦3.5 million in sales per year which would otherwise have continued to be lost due to power cuts. The impact of the infrastructural deficiency which occasions the investment, therefore, is much greater when measured in terms of output which would be lost in the absence of the investment, than when measured in terms of the cost-raising effects of the additional investment requirement.

High Cost of Plant and Equipment

3.29. The high cost of plant and equipment in Nigeria is attributed in large part to the fact that virtually everything has to be imported, since ocean freight, internal transport and port charges add greatly to the cost of imported materials, and local substitutes are correspondingly high priced. Information on the landed cost of cement in Nigeria compared to its ex-factory cost in Europe supports this view. 1/ In 1979, the cement delivered in bulk to Nigeria cost ₦20.15 per ton f.o.b. London (at the official exchange rate) and ocean freight added ₦12.25 per ton. To this must be added the cost of bagging, handling and port charges. The ex-quay cost of cement imported in bulk and then bagged was approximately ₦70 per ton compared to ex-factory prices for bagged cement in Nigeria ranging between ₦57 and ₦67 per ton. In contrast, European ex-factory prices for bagged cement ranged from as low as ₦21 per ton in Spain to as high as ₦40 per ton in the U.K. Of course, cement is a low value-to-weight product and therefore transport and handling charges relative to f.o.b. value are especially high. One would expect smaller differences between f.o.b. and landed cost for machinery and equipment, steel bars, etc.

3.30 Another factor in raising the costs of construction of production facilities in Nigeria is the very high cost of suitably qualified expatriate skilled labor noted earlier. Cost-of-living allowances in particular have to be very high in a situation where the yearly rent for an apartment or house can be in the neighborhood of ₦50,000 (in the Lagos area). Such allowances may be viewed as being more in the nature of transfer payments to landlords than as corresponding to real costs of production.

Incentives and Competitiveness

3.31. An examination of Nigeria's current structure of protection can provide some useful preliminary clues as to the viability and long-term export prospects of individual Nigerian industries, although too much stress should not be laid on this. In particular, specific industries probably should not be picked out for application of ad hoc industry-specific export promotion

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1/ C. Martin, Review of the Demand and Supply of Cement in Nigeria, World Bank (Mimeo), 1979.

measures on the sole basis of their having negative or low effective rates of protection. However, it is generally true that industries currently enjoying little or outright negative effective protection in the home market are more likely than are their highly protected counterparts to prove capable of expanding production and successfully competing in foreign markets under a suitably liberalized foreign trade regime.

3.32. In a relatively distortion-free situation in which market prices would approximate better to economic opportunity costs, such current relatively unprotected industries could be expected to expand their production capabilities so as to at least supply a much larger share of the internal market demand for their products than they now do, and possibly to export to some extent as well. If price distortions were to be reduced generally throughout the economy, so as to narrow disparities among net effective rates of protection, the efficient, low cost industries currently enjoying low or negative effective rates of protection would be enabled to pull resources - labor, land, and capital - away from the mostly high cost industries currently enjoying high effective rates of protection.

3.33. It should be noted that not all highly protected industries are necessarily high cost industries or unable to compete in world markets. In the case of some highly protected industries, the ability to charge higher than world prices may simply translate into higher profit margins. But, in general, firms in highly protected industries (or at least some such firms) may be presumed to need the high levels of protection they currently enjoy, in order to be able to earn a normal rate of return on capital and pay other hired factors of production at competitive rates. Firms in such industries are likely, therefore, to be high cost, economically inefficient producers, with factor requirements poorly suited to the country's overall factor endowments.

3.34. In an industry in which protection-generated excess profits are being earned, barriers to entry may prevent the emergence of new firms, so that there may be little or no tendency for prices to fall under the influence of competition, and the excess profits of firms already in the industry tend to persist (although the Government could act to reduce such profits by imposing price ceilings, as has happened in Nigeria in the case of the motor vehicles assembly). A World Bank study of the structure of protection in Nigeria in 1968 1/ found that the metal goods industry, which enjoyed an effective rate of protection of 143 percent, had a rate of return on capital in the neighborhood of 45 percent (in absence of competition), but at world prices the rate of return on capital would have declined to only 2 percent.

3.35. Ideally, we would like to be able to check for the existence of excess profits in industries enjoying high effective rates of protection, but given the absence of capital stock data in Nigeria, this cannot be done

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1/ Cited in IBRD, Nigeria-Options for Long-Term Development, The Johns Hopkins University Press, 1974, p. 83.

rigorously. Although it is possible to infer from information on the share of labor in value added at domestic prices the possible existence or non-existence of excess profits, it should be clear that this procedure has its limitations.

3.36. The possibility of protection-generated excess profits gives rise to a further complication in assessing the constraints on non-oil exports. It may be that, so long as they are making excess profits, firms in highly protected industries, whether efficient or not, would be more likely than otherwise to pay unusually high wages and/or to hire labor in excess of profit-maximizing levels--in effect sharing out the monopoly profits with labor. Thus, a detailed wage and unit labor cost comparison of such industries with their counterparts abroad could give the misleading impression of unusually high cost industries even after adjusting for the extent to which the official exchange rate is believed to overvalue the domestic currency.

3.37. In the case of a number of industries, in which Nigeria might be expected to have a potential comparative advantage for exports, domestic currency overvaluation and the existing structure of protection have discouraged domestic production. When the net effective rate of protection for an industry is negative, that industry is operating under a handicap, so that its production is being discouraged and is being held below its free trade level. Similarly, if for the same industry the nominal rate of protection is less than the degree of exchange rate overvaluation, imports of the kind of goods produced by the industry in question are artificially cheapened.

3.38. From inspection of the Bertrand and Robertson's 1977 estimates of nominal and effective rates of protection, we obtain a list of 22 industries for which the net effective rate of protection was negative (under the assumption of currency overvaluation of 35 percent) and the nominal rate of protection was less than 35 percent in 1977. This list, given in Statistical Appendix Table 12(A), includes among others the following industries: groundnut oil and cake, cotton seed oil and cake, palm milling (although this is doubtful) 1/, natural rubber, tin smelting, agricultural and industrial machinery and equipment, and cement. Industries possibly included as receiving negative net effective protection, depending on the estimates of price distortions in each case for the final products and traded goods inputs, are grey baft, finished textile fabrics and wood fixtures and furniture. If the hypothesized degree of domestic currency overvaluation is put at 50 percent, the list lengthens considerably (part B of the same table). Among the 17 industries added to those already cited are: wearing apparel (except footwear), fertilizers, disinfectants, insecticides and fungicides, drugs and medicine, tire and tube industries, cycles, and aluminum products.

1/ The oil palm subsector review indicates that both nominal and effective rates of protection in this subsector have been very high, far outweighing the adverse effect on production and positive effect on consumption of exchange rate overvaluation.

3.39. Robertson's recent estimates indicate considerable changes in the tariff structure between 1977 and 1979. Using the 1979 estimates of nominal and effective rates of protection, the list of industries for which the net effective rate of protection was negative and the nominal rate of protection less than 35 percent included: groundnut oil and cake, palm milling (again, for the reasons already mentioned), cotton yarn, disinfectants, insecticides and fungicides, drugs and medicines; plastic shoes, plastic sheeting and imitation leather, cement, and possibly bricks, grey baft and finished textile fabrics, wooden furniture and fixtures, and tile.

Extent and Magnitude of Anti-Export Bias

3.40. Anti-export bias. The existence of positive nominal tariffs, with a non-operational import duty rebate system and no other means of effectively subsidizing exports, creates an anti-export bias which would render exports at the official exchange rate impossible or at best unlikely except in the case of industries with one or a few large firms capable of exercising market power in the protected internal market. For such firms, it might prove profitable to sell at a lower price abroad than at home merchandise which otherwise, if produced and sold at home, would have tended to depress prices on the home market and cut into industry profits. There are some African countries with internal markets much smaller than that of Nigeria (e.g. Ivory Coast and Senegal) in which firms in the textiles industry are apparently following such a dualistic pricing policy.

3.41. Anti-export bias coefficients have been estimated on the base of the 1979 tariff structure for a number of Nigerian industries and are presented in Table 3.3. The coefficients have been calculated using a simplified version of the following formula. 1/

$$Xi = (Wi - Yi)/Yi = Wi/Yi - 1$$

Where Wi is domestic value added as a result of producing for domestic markets, in the ith industry; and Yi is domestic value added as a result of producing for export markets, in the ith industry.

3.42. It is possible in some cases for Xi to be negative. This means simply that selling the product at the world price and paying for the inputs at tariff and distortion-ridden domestic prices would result in an outright loss to the firm. Thus, in such a case, even though Xi would be negative, the correct interpretation is that the tariff structure impedes rather than promotes exports of the industry's output.

1/ An attachment to this report treats the theory of bias against exports in a more technical manner. The principal reference in this area is Balassa and Associates' The Structure of Protection in Developing Countries, Johns Hopkins Press, 1971. pp. 331-332.

3.43. Table 3.3 shows that in all but a few cases, the anti-export bias coefficients are positive and large. This means that nominal tariff rates, though on average of moderate size (mostly considerably less than 50 percent), nonetheless are large enough to be multiples of the ratio of the difference between world price of output and tariff-ridden value of inputs to domestic price of output for most industries.

3.44. The exceptions fall into two categories. The first category is that already mentioned, of industries for which the distortion-ridden value of inputs exceeds the world price of output at the official exchange rate. This appears to be the case for wearing apparel, pulp, paper and paperboard manufacture, glass containers, cast iron products, and motor vehicles. The second category is that of industries for which nominal tariffs are zero, giving rise to a zero anti-export bias coefficient. This category includes the following industries: palm milling and lumber. Using the oil palm subsector review's estimates of the nominal tariff on palm oil, however, results in anti-export bias coefficients for palm milling ranging between 1.55 and 3.49.

3.45. Therefore, we can conclude that given the absence of export subsidies the existing system of protection imparts a substantial degree of anti-export bias to most industries, and inhibits, with negative net effective rates of protection, even those few industries which are not subjected to anti-export bias from developing their production capabilities to the extent necessary to generate export sales.

3.46. Import Duty Rebate System. A puzzling feature of the current policy scene in Nigeria is the disappearance of import duty rebates on materials used to produce manufactured goods for exports. Provision for this dates back to 1958. Such rebates were still being paid possibly as late as the early 1970s. 1/ Complaints were being made at that time about the lengthy delays in getting the rebates, but apparently the machinery was in motion. Apparently rebates are no longer being paid today, and the general impression seems to be that the regulation has never functioned effectively as an incentive. A recent example concerning exports of cigarettes, pointed out by officials of NEPC, indicates that the scheme is even working as a disincentive. Indeed, not only the customs authorities were unaware about the scheme, they apparently held up the shipment until the exporter found and submitted the forms.

3.47 Even if import duties rebates are revived, in practice one might ask how much impact they can be expected to have in providing a stimulus to exports relative to what is required. It would seem that duty drawback would be fairly insignificant as an incentive for industries benefitting from Approved User Status (AUS) and for those in which firms are using mostly materials of local origin. Firms enjoying AUS receive substantial duty rate reductions--in the neighborhood of 50 percent, typically--on imported material inputs, regardless of the destination of their output. AUS can have an important protective effect; as the case of metal furniture and fixtures illustrates, it can mean the difference between receiving positive or negative net effective protection. With AUS the average rate of duty on material inputs is too low for a rebate on duties corresponding

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1/ See Manfred Berger, Industrialization Policies in Nigeria (Weltforum Verlag, Munich, 1975).

Table 3.3: ANTI EXPORT BIAS CALCULATIONS FOR SELECTED INDUSTRIES, 1979 /a

Industry	Nominal Rate of Protection (1)	Value Added Ratio at Domestic Prices (2)	Anti-Export Bias Coefficient (3)
Vegetable and oil refining			
Groundnut milling	0.15	0.18	2.37
Cotton seed crushing	0.10	0.18	0.97
(in field inquiries)		(0.35)	(0.34)
Palm milling	0.00	0.18	0.00
(Oil Palm Sector)	(1.38 0.93)	(0.95 0.62)	(1.55 3.49)
Sugar factories and refineries	0.28	0.24	10.29
Textiles			
Grey baft	0.20 0.40	0.41	0.68 2.30
Cotton yarn	0.17	0.41	0.55
Finished textile fabrics	0.45	0.41	1.01
Yarn from synthetic fiber	0.10 0.20	0.41	0.28 0.68
Madeup textile goods	0.40	0.39	2.74
(BR 78)	(0.23)	(0.39)	(0.92)
Wearing apparel except footwear	0.50 0.70	0.30	-10.00 -3.68
Saw mills and lumber: Plywood	0.40	0.49	1.40
Lumber	0.00	0.49	0.00
Wooden fixtures and furniture	0.40 0.60	0.33	6.45 -8.33
Pulp, paper and paperboard manufacture (BR 78)	(0.40)	(0.15)	(-2.10)
Tire and tube industries	(0.22)	(0.29)	(1.64)
Glass containers (BR 78)	(0.42)	(0.24)	(-5.30)
Bricks and Tiles	0.20	0.61	3.76
Cement	0.09	0.41	0.25
Aluminum products (BR78)	(0.10)	(0.52)	(0.21)
Cast iron products	0.45	0.30	-30.00
Fabricated metal products			
Enamelware (BR 78)	(0.19)	(0.24)	(1.99)
Galvanized iron sheets	0.25	0.24	5.00
Assembly of motor vehicles	0.50 5.00	0.05	-1.18 -1.06

Note: /a For more details about the methodology see Attachment.

Source: Mission estimates based on Robertson's study: "The Structure of Industrial Incentives In Nigeria, 1979-80", World Bank mimeo, 1981.

to exports of the final product to make much of a difference to the relative attractiveness of producing for the domestic market versus exporting. The calculation of average duty rates on inputs by Bertrand and Robertson took into account the fact that many users of the inputs had AUS. The analysis which follows shows that reviving the rebate system would eliminate or reverse anti-export bias in only a few cases--but it should be kept in mind that coupled with elimination or reduction of AUS concession rates, reinstatement of the import duty rebate system could have a much broader impact.

3.48 Under some reasonable assumptions (see Attachment), a necessary but not a sufficient condition for an import duty rebate to at least compensate the exporter for foregoing the domestic market price is that:

$$t \leq t_m$$

where t and t_m represent the tariff (or equivalent tariff rate in the case of an import quota or ban) on the industry's output and the average tariff rate on traded goods inputs used by the industry, respectively.

3.49. Inspection of the nominal tariffs and average tariff rates on imported inputs listed in Bertrand and Robertson's study and Robertson's update indicates that this condition is hardly ever fulfilled in the Nigerian case. Where it is fulfilled, the industry in question is suffering from a negative effective rate of protection even assuming that the exchange rate is not distorted.

3.50. For 1977, the industries having nominal rates of protection less than the average tariff rate on traded inputs are palm oil milling (but as noted, their estimates are dubious), printing, cement, and machinery and equipment. For 1979, the industries in question are: groundnut milling, palm milling, sawn lumber, printing and publishing, industrial gases, drugs and medicine, petroleum jelly, lubricating oil, trailers and tankers, tugs and barges, and possibly the following products: soft drinks, carbonated waters, and worstered yarn (the range of possible nominal rates of protection in this case is very wide). In some cases, the difference between the nominal rate of protection on output and the average price distortion rates on traded inputs is so small that it is unlikely that a functioning import duty rebate scheme would have any significant effect on overcoming the anti-export bias effect.

Evidence and Significance of Illegal Exports

3.51. In pointing out the discouraging effects of the tariff structure, current degree of domestic currency overvaluation, and total absence of effective export subsidy measures, it should be clear that we are referring to the effect on recorded, or legal, exports only. The tariff structure and degree of overvaluation of the Naira, at the same time as they stifle the development of legitimate non-oil exports from the manufacturing sector, encourage the illegal (i.e. non-recorded) exports of a number of manufactured products. The fact that at the official exchange rate there is a chronic excess demand for foreign exchange and corresponding excess supply of Naira seeking to buy foreign goods, services, and assets, has translated itself into the emergence of a black market for foreign currencies.

3.52. On the black market, the Naira price for foreign exchange is well above the officially set price. From various inquiries in Nigeria, it can be concluded that the black market premium on foreign exchange (dollars and CFA francs) ranged from 30 percent to as high as 100 percent in mid-1978 and continues to be of significant magnitude varying according to place and season in 1981. 1/ Consequently, it can be profitable to buy some goods made in or imported into Nigeria at the ex-factory price or c.i.f. plus import-duty price to resell in neighboring countries either for foreign currency which can then be converted into Naira at the black market rate of exchange, or for goods, to be smuggled back into Nigeria across its long land borders without paying import duty. If the imports are declared, the question would surely arise of how the foreign exchange to pay for them was obtained.

3.53. Illegal exports do not necessarily indicate that an industry has an economic cost advantage in export markets which would justify an effort to promote exports though legitimate channels from the industry in question. It is perfectly possible for the nominal tariff on an industry's output to be sufficiently small relative to the black market premium on foreign exchange that illegal exports are stimulated even though the net effective rate of protection for the industry is positive and large. A positive and large effective rate of protection indicates, in the absence of evidence of excess profits, that the industry is an inefficient one which would tend to give way to imports in the domestic market under a liberalized trade regime rather than prove to be competitive in export markets under such circumstances.

3.54. As can be seen from Table 14 of the Statistical Appendix the list of industries from which illegal exports might be expected, based on the size of the nominal rate of protection relative to the black markets' foreign exchange premium, is a long and impressive one, containing about 28 industries if the black market premium is as much as 30 percent and 50 industries if the premium reaches 50 percent. Not all of the industries in question are known to supply the illegal export market. A number of them produce products which are bulky or high weight-to-volume--perishable in transit, or non-standardized--so that transport costs, losses in transit, and difficulties of evading detection would militate against illegal exports in these cases. For others on the list, the difference between the foreign exchange premium on the black market and the nominal rate of protection, while positive, may be too small to make illegal exporting activity profitable.

3.55. However, for a considerable number of industries on the list, some evidence of illegal export activity can be found. Illegal exports of some magnitude are known to exist in particular in the cases of glass

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1/ It should be noted that the black market premium, which reflects other factors such as risk, is not a good indication of the extent to which the Naira is overvalued.

containers (bottles), aluminum extrusions, detergents and soap, 1/ and was even mentioned in the case of textiles. The evidence on the magnitude of price distortions in textiles is mixed. Apparently the illegal trade in textiles goes in both directions, due to the heterogeneous nature of the product. However, in recent years Nigerian markets have been flooded with illegal imports of textiles (mostly from Far Eastern countries) and it is generally agreed that illegal imports of taxtile products far outweigh illegal exports.

3.56 Industrial goods which may be found profitable to buy for subsequent illegal exportation include a large number which enjoy positive net effective protection suggesting lack of viability in a free trade situation even in the internal market. The soap and detergents industry falls into this category. However, since there is evidence of excess profits in this industry it might be viable in a distortion-free environment. This is also the case for a large number of other industries in the group. Industries which receive positive net effective protection of substantial magnitude and do not appear to enjoy excess profits, however, would most likely prove non-viable in a no-distortions situation. They would also be incapable of exporting successfully let alone surviving in such circumstances--even though under the present tariff structure, with the current degree of exchange rate overvaluation, such industries may be supplying the illegal export trade to some extent.

1/ The Mission was told that a detergents factory in the Ivory Coast had to close down, unable to meet the competition from illegally imported Omo detergent from Nigeria and the ECG/EIU Study of export potential for NEPC says explicitly that they paid special attention to the soap and detergents industry because of the apparent volume of illegal exports of its products.

CHAPTER 4

PROSPECTS FOR AGRICULTURE AND MANUFACTURING EXPORTS

4.01 This chapter examines the long-term export potential of both agricultural export commodities as well as some industrial activities. In the case of agriculture, the mission concentrated its effort on the impact of specific past and present policies and institutions on the production of the major export commodities (object of Chapter 2). In addition, the analysis is based, to some extent, on estimates of domestic resource cost ratios (DRCs) at one point in time as well as on the world market outlook. Ideally, a useful way of examining the question of export potential would be to construct long run DRCs of major export commodities and to compare them with similar long run DRCs of other commodities which compete for agricultural land and rural labor. This approach requires data on future labor and land productivity of those major crops, which are not currently available and which would require much more time to construct than the mission can afford.

4.02 With respect to manufacturing, the mission's starting point was the nominal and effective protection estimates by Bertrand and Robertson followed by an in-depth analysis of some subsectors and projects. Chapter 3 has already discussed the viability of many industrial activities in a free trade situation and estimated the magnitude of their anti-export biases under the current system of protection. In some cases, the subsidies required to export some of the projects' output were calculated. Only for two large projects, LNG and fertilizer, did the mission succeed in getting a rough estimate of their prospective cost-benefit ratios.

Agriculture: A Review of Export Commodities

4.03 From the point of view of world demand, it would seem that, according to Bank projections, the long-term market outlook for cotton, rubber and, to a lesser extent, for groundnuts, palm oil and palm kernels is favorable; while that for cocoa is unattractive. Table 4.1 below indicates the actual and projected prices for these commodities in 1981 constant prices.

4.04 The brighter outlook for cotton is due to the expected increases in the cost of petroleum-derived feedstocks which will most likely be reflected in higher prices for man-made fibers. While the short-term price outlook for natural rubber remains depressed because of the recession in industrialized countries and the fall off in car production, the longer term outlook is expected to be favorable. For groundnuts, the outlook is unattractive in the short-term due to the recovery in the U.S. production following the 1981 drought and due to the expansion in production of other countries namely China. The outlook is expected, however, to remain relatively favorable in the long run due to the economic recovery in the world.

4.05 On the other hand, for cocoa, Nigeria's most important export crop, the market outlook is poor because of the anticipated impact of new plantings in Brazil and Ivory Coast undertaken during the mid-1970s. The world cocoa price is projected to remain relatively low at least up to 1990. For palm oil and palm kernels, although some recovery in prices in real terms is expected over the medium-term, their long-term prices are projected to remain constant, in real terms, as competition in the fats and oils market intensifies.

Table 4.1: COMMODITY PRICES AND PRICE PROJECTIONS IN 1981 CONSTANT DOLLARS

		Actual				Estimate		Projection	
	Unit	1978	1979	1980	1981	1982	1983	1985	1990
Cotton	cts/kg	188	179	197	185	164	186	200	215
Groundnuts	Dlrs/mt	734	600	476	636	404	408	567	598
Rubber	cts/kg	132	151	157	125	111	123	134	156
Cocoa	cts/kg	404	350	251	208	164	163	146	145
Palm Oil	Dlrs/mt	713	695	563	571	490	508	575	582
Palm Kernels	Dlrs/mt	432	531	333	317	269	290	360	369

Source: World Bank, June 1982.

4.06 From the Nigerian supply side, however, there seems to be little prospect in the short- and medium-term for Nigeria to resume exports of palm oil, groundnuts and cotton so long as the constraints discussed earlier remain in force. Indeed, the more critical short run consideration is to be able to increase production to satisfy local demand. Unless domestic production can be further increased, imports of vegetable oils can be expected to increase. 1/ Also for cocoa, rubber and palm kernels there does not seem to be any scope for sustained increases in output in the short- and medium-term, notwithstanding the fact that Nigerian smallholders are known to be responsive to price incentives. 2/ The reasons for this are the 'scarcity' of labor in the part of Nigeria where these tree crops are grown, as well as the poor quality of the existing stock of trees.

1/ We understand that a well-known Indian company has submitted a proposal to set up a refinery for imported crude palm oil and that at least one cottonseed crushing company is looking for supplies of groundnuts from abroad.

2/ G.K. Helleiner, "Smallholder Decision-Making: Tropical African Evidence."

4.07 Domestic resource cost ratios 1/ were calculated for groundnuts, oil palm and other food crops (maize, sorghum and rice) for 1979 under alternative assumptions on exchange rates, wage rates and yields. They were presented in some recent Bank documents, namely "Agriculture Marketing and Prices Sector Note" (November, 1980) and "Oil Palm Sub-Sector Review" (July, 1981).

4.08 In the context of Nigeria's current petroleum dominated economy, most traded commodities are actually at a disadvantage compared to non-traded goods and are not competitive on the world market as reflected by their high DRCs (greater than one) in Table 4.2. For groundnuts cultivation, the DRC ratios were well above one at the current official exchange rate and approached one only with a shadow exchange rate of ₦1 = $1.29, a labor shadow wage of ₦1.78 per man day, or a yield exceeding 1 ton/ha. (It is now well below 700 kg/ha.) Oil palm, in contrast, is more competitive. The oil palm DRC ratios were lower than those of a number of other export and food crops. For cocoa and cotton, information is not available to carry out a similar calculation.

Table 4.2: DRC RATIOS FOR SELECTED CROPS IN NIGERIA, 1979

		Switching Values		
	DRC Ratio	Labor (₦/day)	Yield (mt/ha)	Exchange Rate ($ per ₦)
Maize	1.76	1.42	2.22	1.04
Sorghum	1.66	1.51	1.82	1.10
Rice (paddy)	2.55	1.05	2.76	0.71
Groundnuts (unshelled)	1.40	1.78	1.23	1.29
Oil Palm (ffb)	0.39-0.71	-	-	-

Source: Agricultural Marketing and Prices in Nigeria's Green Revolution: Recent Developments and Policy Issues, World Bank (mimeo), May 1981.

4.09 Nigeria could regain its international competitiveness in most of its agricultural export crops partly through undertaking investment in rural infrastructure and in replanting tree crops to increase yields. In the case of tree crops the existing stock of obsolete low-yielding trees needs to be replaced with improved high-yielding materials. This can only be accomplished in the longer run, because of the substantial gestation periods required for tree crops to reach full-bearing status. But if such investment

1/ The DRC is a measure of costs to benefits in terms of domestic non-traded inputs per unit of value added produced. It is a measure that is well suited for application over one-time period. It can also be applied to multi-period situations and tree crops but in these situations it may lose its simplicity.

is judged to be economically viable (as it is likely to be in the case of palm produce but not in the case of cocoa), investment in replanting should most likely be started as soon as possible so that trees can be reaching maturity 1/ as petroleum export revenues begin to decline in real terms.

4.10 Government has included in the current plan 2/ an ambitious program for rehabilitation of export crops. Although the details of this program are not fully known at this stage, the mission is concerned that the plan may have underestimated the financial and manpower resources needed to ensure effective implementation of the rehabilitation program, especially if it is to be accomplished without detriment to achieving the plan's food production self-sufficiency objective. 3/ A trade-off between investment in export crops and investment in food crops must be effected. It is desirable that this be determined for investment planning purposes as soon as possible, but the mission is not aware of any attempt to establish what the equilibrium target level of production for food and/or export crops in the Nigerian context should be.

Manufacturing: A Subsector Review

4.11 The mission examined a number of industries in depth for evidence of export potential. These industries are briefly reviewed below. They are discussed in more detail in Annex 2. They include vegetable oils, textiles, cement, steel, motor vehicle assembly, and chemicals and petrochemicals (LNG, fertilizer, other chemicals, and soaps and detergents). Their combined shares in the total value added and employment of the manufacturing sector are about 22 and 35 percent, respectively. These activities were selected for review because of their importance in terms of value added and employment, the role of economies of scale, and the importance of domestic raw materials in their manufacture. Another approach would be to consider only demonstrably efficient industries as candidates for export promotion, but this would be overly restrictive and misleading since some industries which are currently clearly inefficient may, through learning by doing and progressive exploitation of economies of scale, be expected to be viable in the longer run.

4.12 Vegetable Oils. These include palm oil, palm kernel oil, groundnut oil and cotton seed oil. Despite substantial effective protection, the production of palm oil stagnated, or may even have declined slightly in the 1970s, thus failing to keep pace with growth of domestic demand. The difficulties of

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1/ Oil palm trees begin to yield in the fourth year and reach their maximal yield in their ninth year; cocoa trees take several years to begin to yield and do not reach maximal yield until their fifteenth year.

2/ Nigeria, Outline of Fourth Development Plan, 1981-85, page 24.

3/ For the food plan see F. Idachaba, et. al, The Green Revolution: A Food Production Plan for Nigeria, Federal Ministry of Agriculture, May 1980.

the industry must be ascribed largely to deficiencies in managerial and technical skills at the firm level as well as erratic and inadequate supply of spare parts and materials. In view of the high rate of effective production, it is hard to argue that insufficient incentives were a problem. Given the limitations on the expansion of the local raw material base for palm milling, the prospects for resumption of exports of palm oil in the foreseeable future are dim, even if the deficiencies of managerial skills in the industry can be successfully addressed and anti-export bias eliminated through payment of an export subsidy while maintaining the high incentives to production which currently exist.

4.13 Palm kernels can be exported unprocessed or can be crushed and exported in the form of palm kernel oil and/or cake. Since palm kernels and palm kernel oil find few uses on the domestic market, what is produced of both is mostly exported. The palm kernel crushing industry is currently operating at 10 percent of capacity. The industry's real problem seems to lie in the supply side constraints on production (irregular supply of kernels or evacuation of produce, intermittent electricity supply, difficulties in obtaining imported hexane and spare parts) and in the industry's inability to overcome them (their negative cash flow does not permit them to make the investments necessary), rather than in the level of incentives (e.g. the toll crushing fee). If the industry could be brought up to full capacity operation, this would mean a ten-fold increase in the current level of palm kernel oil exports, a corresponding increase in production of palm kernel cake, but a decrease in exports of palm kernels. Abolishing the toll crushing system and returning to a system whereby crushing mills would buy palm kernels directly from the producers would not seem by itself to help the situation. It would help if, in addition, the price at which the mills could sell palm kernel oil were to be set, by means of a subsidy, sufficiently above the export parity price to make palm kernel crushing profitable.

4.14 Groundnut milling and cotton seed crushing firms have been operating at levels well below capacity in recent years--principally because of their inability to obtain adequate supplies of groundnuts, cotton seed or other oilseeds. An important contributing factor at one point was, and still may be, the government's imposition of a ceiling ex-factory price on groundnut oil too low to make milling of groundnuts worthwhile. In addition, the supply of groundnuts has been adversely affected by climatic factors as well as by a structure of protection which would seem to favor production of other crops, such as maize, over groundnuts. Groundnut mills, unable to obtain sufficient quantities of groundnuts on favorable terms, have turned to crushing cotton seed (only minor modifications of equipment are required for this). The result has been an overall shortage of cotton seed and the emergence of excess capacity in the cotton seed crushing firms.

4.15 The long run outlook for exports of groundnut and cotton seed oils is poor because of problems with the raw material base. Both groundnuts and cotton are labor-intensive crops and farmers may be expected to find their cultivation increasingly unattractive relative to alternative possibilities in the future. Moreover, mechanized production of these two commodities does

not seem economically viable (para 2.18). Mills may possibly adjust by shifting to the processing of other oilseeds such as sun flower seeds whose cultivation may prove more attractive to farmers. There would, perhaps, be some prospect for supplementing domestic output of groundnuts with imported supplies. But barring a large improvement in incentives to grow cotton and groundnuts the output expansion possibilities of groundnut oil and cotton seed oil look limited, while domestic demand should continue to increase at a rapid pace. Thus the likely outlook is for an increasing reliance on imports of groundnut oil and cotton seed oil and close substitutes.

4.16 Textiles. Following the imposition of a ban on imports of all textiles in 1976, the Nigerian market has experienced a massive invasion of illegally imported textiles. The local industry apparently did not produce higher quality textiles prior to the imposition of the ban and has not moved to produce them since then. The result is that demand for higher quality textiles is met partly by illegal imports and partly by substitution of locally produced textiles of lower quality for the higher quality imported varieties (substitutability, at least within the category of cotton print textiles, seems to be considerably less perfect). As per capita incomes and population continue to expand, resulting increases in demand for various categories of textiles have translated into increases in prices instead of increases in imports. It is thus at least possible that certain varieties of textiles which might otherwise have been exported have ended up by being absorbed by the domestic market.

4.17 Lifting the import ban, after a certain period announced in advance, could therefore lead to the initiation or expansion of exports of low-quality textiles from Nigeria. (There is already some evidence of such exports through illegal channels.) This would amount to a policy of horizontal specialization. An important question for a "horizontal specialization" textiles exporting strategy is how important and reliable export markets for low quality textiles are. If market prospects for this kind of product are poor, or if Nigeria's textiles industry would not be able to supply external markets at competitive prices, then perhaps a program of adaptation of Nigerian mills to produce high quality textiles would be indicated. All these questions point to the need of an in-depth study of the textiles sector.

4.18 The incentives picture in the textiles industry is somewhat confused. With price distortions substantially less than the black market foreign exchange premium, one would be led to expect illegal exports rather than illegal imports. While there is some evidence that illegal exports of textiles take place, illegal imports of a variety of textiles are by far more important in terms of volume and value.

4.19 The long term prospects for exports from this sector are problematic for a number of reasons: the textiles industry is a labor-intensive one, and Nigerian labor is expensive relative to labor in the Far East and even in some other African countries, while Nigerian labor productivity is low. However, labor productivity in recent years has been low due in part to less than full capacity operation caused by a variety of problems and can be expected to improve as these problems are successfully resolved. Another problem for the

textiles industry is the doubtful future of cotton growing in Nigeria; cotton may become increasingly less attractive to Nigerian farmers as other crop possibilities evolve. Thus the Nigerian textiles industry, which has been forced by government mandate to integrate backward to the spinning stage, may become increasingly dependent on imported cotton lint.

4.20 Cement. Since the early 1970s domestic supply of cement has consistently fallen far short of domestic demand. The inability of supply to keep pace with domestic demand is due to the failure of a number of firms to recover from war-related damage, to adjust to infrastructural deficiencies, to exercise preventive maintenance and to obtain services of competent management. Efforts to expand capacity have been plagued by lengthy and costly construction delays. Many firms have been operating at well below capacity and this tendency has worsened over time.

4.21 The industry has been receiving negative protection. The ceiling ex-factory price has been kept at the import c.i.f. price level (calculated at the official exchange rate). With price distortions for traded inputs and the current degree of exchange overvaluation, this has resulted in a negative effective rate of protection of substantial magnitude. The result has been a low rate of return on investment even when nearly full utilization of capacity is achieved. Incentives for output expansion have clearly been adverse but, with some exceptions, management deficiency problems in the industry have been so severe as to make it appear doubtful that industry performance could respond significantly to an improvement in incentives in a reasonable length of time.

4.22 Given the large current and projected excess of domestic demand over domestic supply, exports of any magnitude in the foreseeable future seem unlikely. However, there might be some prospect for exports of cement eventually to areas in neighboring countries in the natural market area of Nigerian cement plants.

4.23 Steel. Nigeria's ability to produce steel using natural gas as source of energy will probably give the country a major cost advantage since cheap energy is crucial in determining competitiveness; energy accounts for as much as 30 to 40 percent of steel-making costs in developed countries.

4.24 Basically, two export possibilities can be envisaged: (i) exporting finished mill products to other ECOWAS countries (none of which currently have steel-making capacity), starting first mainly with longs for infrastructure purposes, then moving into flats and eventually billets as these countries establish their own finishing mills; and (ii) selling semi-finished steel on the world market. The possibility of exporting steel in semi-finished form (e.g. billets) is, however, potentially more important than the possibility of exports of steel in finished form. This is true partly on tactical grounds: trade barriers in prospective markets in developed countries would be lower for semi-finished than for finished products; and more importantly, on comparative advantage grounds: the relative cost advantage conferred by the availability of cheap energy in the form of associated gas is at the stage of producing semi-finished steel rather than in the rolling stage.

4.25 This assessment of the potential competitiveness of Nigerian steel in semi-finished form must be regarded as tentative since the structural costs for the direct-reduction, gas-fired process of the Aladja plant are not yet known with any degree of confidence. Because of the important implications for the pattern and future investments in the steel sector, further investigation of the various possibilities in this sector should be a high priority in any research program on Nigeria's non-oil export potential.

4.26 At present, there are two integrated steel plants (Ajaokuta and Aladja) and three rolling mills (Oshogbo, Jos,and Katsina) completed or under construction. While there would not appear to be any cost advantages due to technology (conventional blast furnace) or location of the Ajaokuta plant, the Aladja plant, because of its location on the coast and its cheap-energy-based technology, would possibly be able to produce billets at a competitive price for the export market (at least in the short-term).

4.27 Motor Vehicle Assembly. Motor vehicle assembly in Nigeria is currently a highly protected industry. The high rates of protection, combined with the absence of excess profits in the industry, are indicative of a highly inefficient activity. Imports of cars have been strictly controlled since 1975, so that the supply of cars to the economy is essentially limited to what can be domestically produced. Ceilings on ex-factory prices have been set fairly low and raised only at infrequent intervals. The result has been that motor vehicle assemblers have not been allowed to take full advantage of their sheltered market position to set prices which clear the internal market. As a result of this policy, there is evidence of chronic excess demand.

4.28 Although motor vehicle assembly in Nigeria appears to be an inefficient activity, it should be recalled that it is an industry in which economies of scale are very important, and that Nigeria, more than any other country in Sub-Saharan Africa appears to be developing a motor vehicle assembly industry with production of individual models on a scale large enough to realize substantial economies of scale. The Nigerian motor vehicle assembly industry can be expected to lower its costs and become more cost-competitive at home and abroad by progressively exploiting economies of scale in production and through increased experience (learning by doing). The extent to which costs can be lowered in the foreseeable future, and whether or not the industry can become fully competitive on world markets, however, are open to question. The number of models produced will have to be limited so as to achieve the critical scale of production of individual models needed to make backward integration - a key Government policy goal and requirement imposed on the industry - economically advantageous.

4.29 Exporting can be of some help in this respect, since the number of models that can be manufactured consistent with achieving the minimum critical scale of production for individual models is larger when sales are not limited to the domestic market alone. However, the obvious export markets for Nigerian-made motor vehicles are in the other ECOWAS countries (none of which have motor vehicle assembly industries on a substantial scale as yet) and it is questionable as to how much exploiting these possibilities would enlarge the number of models that can be economically manufactured in Nigeria in the long run.

4.30 An important question affecting the competitiveness of the Nigerian motor vehicle assembly industry is that of the optimum degree of backward integration. On the one hand, a certain amount of backward integration is needed to achieve significant economies of scale; on the other hand, the amount of backward integration that is economically justifiable is linked to the scale of production of individual models. So long as this scale is small, it is important to limit the degree of backward integration and to achieve economies of scale mainly through vertical specialization in particular stages of the manufacturing process.

4.31 From the mission's inquiries, it appeared that an interest in exporting exists on the part of some of the firms, and that company plans regarding number of shifts and capacity expansion could depend in part on government policy. A need for clearer guidelines on export policy and incentives to export was expressed by the manager of one firm. For another company, to export its most "saleable" model, without cutting its domestic sales, would require a policy of horizontal specialization in the manufacture of this model, increasing capacity to produce it by phasing out production of the vehicles in whose production the company currently has excess capacity. For a third company, the only incentive needed to export cars management claims to require is for the ex-factory price to be the same whether a car is exported or sold in the domestic market - in other words, provision of a subsidy on export sales to eliminate the current anti-export bias. The subsidy would have to be quite large, since it would have to equal the nominal rate of protection on cars which is very high. Our calculations indicate that application of an import duty rebate scheme would provide only about 40 percent of the subsidy required to equalize the attractiveness of selling in the export market with that of selling in the home market, so that export incentives in addition to that provided by a functioning import duty rebate scheme would be required.

4.32 Chemicals and Petrochemicals. At present, there are three large projects (LNG, fertilizer and petrochemical complex) which are under active consideration by the Government. Apart from LNG, which is entirely conceived for the export market, it is unlikely that a significant volume of exports can be generated from the other projects, particularly after the initial operating years, given the rapidly growing domestic market. During the first years of the fertilizer project, there might be excess in Urea and NPK production which can be exported. The main export candidate of the petrochemical plant is reported to be carbon-black and caustic soda. However, given the fact that these industries are capital- and energy-intensive--two characteristics which may ultimately give Nigeria a comparative advantage--further investigation concerning the prospects for energy-using industries seem warranted. At present, a comprehensive energy assessment study is being undertaken by the World Bank at the request of the Government. The objective of the study is to recommend policy measures and investment decisions to optimize energy resource utilization.

4.33 The export of gas has been considered by the Government since the early 1970s. Since then, different project designs were considered but, for various reasons, the implementation of the LNG project has not yet begun.

The latest study of the project was prepared by the Bonny LNG Ltd. which is no longer in existence. According to this firm, the LNG project was estimated to cost about US$13.7 billion in current prices and was expected to come on stream in the second half of the 1980s. While the project seems economically sound, its success would depend critically on the ability of the Government to secure the marketing and financing arrangements. A new study of the project by a group of consultants under the responsibility of the Energy Adviser to the President is now underway. It is likely that the scope of the project be scaled down.

4.34 Another area where exports might be an option is the soap and detergents industry. The importance of economies of scale and the evidence of excess profits in this industry suggest that in spite of currently positive net effective protection (88 percent), the industry may be a viable one and a potential exporter under conditions of free trade.

CHAPTER 5

RECOMMENDATIONS AND FUTURE WORK

5.01 As the previous chapters have shown, the magnitude of the cost disadvantage imposed on Nigerian industry and agriculture by infrastructural deficiencies, high labor costs, and by the degree of overvaluation of the Naira is such that it would be unreasonable to expect either production or exports to increase significantly in the absence of substantial improvements in the overall policy environment. A successful non-oil export sector would depend critically on major changes in two inter-related areas: pricing and other macro-economic policies, and attitudes leading decision makers in Government and business alike to put more emphasis on export development possibilities and the means to their realization. In addition, there are important sector-specific policy issues on which action is required. These issues are examined further below.

General Policy

5.02 Trade and Exchange Rate Policy. The evidence from the analysis of Nigeria's structure of protection suggests that the current tariff and import licensing system is biased against industries and sectors where Nigeria is likely to have a comparative advantage. These industries include export-oriented and resource-based processing industries. The development of the system of protection in Nigeria has encouraged a movement of resources within the agricultural and manufacturing sectors leading to the promotion of import-substitution activities at the expense of export-oriented activities. It is, therefore, necessary to eliminate or reduce the current degree of anti-export bias in the incentives system.

5.03 There are a number of ways to reduce the degree of anti-export bias, all of which have implications for the economy in general, but some will appear more attractive than others taking into consideration the economic and political costs of adjustments involved. The three principal approaches, each using a varying combination of major policy instruments such as exchange rate, import tariffs and export subsidies, are:

(i) Adjustment in the price of foreign exchange and in the structure of effective rates of protection (by modifying the structure of tariff rates and by gradually phasing out most quantitative restrictions) in order to make production for export as profitable as production for the domestic market;

(ii) Retention of the current trade and exchange rate policies with introduction of export subsidies to the extent necessary to compensate for the degree of discrimination against exports; and

(iii) Use of all major policy instruments simultaneously. Perhaps this approach is the best in the current economic context of Nigeria. However, if for political reasons a devaluation is discarded, than a combination of a modified system of import tariffs with export subsidies is the second-best alternative.

5.04 The first approach calls for an adjustment in both exchange rate and tariff rates. It should be noted that a fundamental choice exists between tariff protection and devaluation. However, while it can be argued that they provide approximately equivalent protection for import substitution industries, their effect is different on the export side, since only the combination which includes a devaluation also serves to pull resources into export activities.

5.05 The degree of overvaluation of the Naira is of substantial but unknown magnitude. It is, however, estimated by IMF (paper presented by Mr. Bornemann at an April 1982 Seminar in Lagos) that the Naira had experienced a cumulative real appreciation of some 80 percent at the end of the period 1974-80 on the basis of purchasing power parities (i.e. taking into account Nigerian domestic rates of inflation and inflation in Nigeria's major trading partners). The forthcoming World Bank report on macro-policies will examine in-depth and in a broader perspective the issue of exchange rate. The overvaluation of the exchange rate, resulting from the imposition of protective measures, must be regarded as a major factor working against export development of both commodity crops and manufactured goods from Nigeria. It should be recognized that adjusting the effective exchange rate on its own would not bring about the desired structural changes in the economy but would need to be accompanied by a policy mix in various other areas, such as monetary, fiscal, wage, and investment policies.

5.06 To discourage inefficient allocation of resources and reduce the anti-export bias, it is recommended that the structure of effective rates of protection be made more uniform. This implies: (i) a gradual reduction in the use of quantitative restrictions (i.e. of import bans and restrictive licensing) and their replacement by tariffs in all but a number of exceptional cases; and (ii) a gradual adjustment of the nominal tariff rates towards a more uniform range of effective protection levels. This implies gradually raising rates on products with very low or negative net effective rates of protection (for example to 20 percent), as well as lowering some of the highest rates on products presently earning "excess" profits (to 100 percent). This means that in practice a narrower band of rates (for example 35-50 percent) would have to be accepted and moved towards gradually within a period of three to five years with annual targets set and announced in advance. Higher tariffs may be justified to protect firms on infant industry grounds. But these tariffs should be set for a finite period not exceeding five years in general to permit the infant industry to mature. The Government should develop a program to safeguard against short-term dumping policies. It needs to be recognized that this is a complex task which entails a more detailed technical work.

5.07 A variant of this first approach which entails less dramatic changes than a program of reducing trade barriers and devaluing the currency would be the introduction of a dual exchange rate system. A basic rate would apply to petroleum exports and imports of "essential" goods (medicine, food, spare parts, etc.); while a relatively depreciated rate would apply to non-oil exports as well as "non-essential" imports. Such a dual exchange rate system would affect the structure of effective rates of protection in a direction favorable to the development of non-oil exports by providing the equivalent of

export subsidies for most industries. The system would still, however, be biased against the manufacture and export of essential goods (such as food processing, cement and light engineering products) - sectors in which Nigeria might have, or be capable of developing, a comparative advantage.

5.08 The second approach consists of using only subsidies to encourage export-oriented activities. In this respect the key question to be addressed is the extent to which a uniform policy of export subsidies should be adopted. In other words, should an export subsidies policy apply to all economic activities or only to a few of them, namely those with promising potential for exports? It should be noted that without uniform incentives, there would be a danger of promoting the production and export of products in which Nigeria does not have a comparative advantage. Moreover, it can be argued that reducing anti-export bias through the introduction of activity-specific export subsidies would have a much smaller impact on the economy as a whole than through the introduction of a nearly more uniform subsidy system.

5.09 It is recommended that an export subsidy scheme should have an across-the-board character (with some exceptions), should be applied automatically, and should provide certainty as well as stability to exporters. The subsidy rate should be expressed as a percentage of value added, measured at the world market price. Ideally, import tariffs and export subsidies on crops and manufactured products should be applied at identical rates so as to ensure that more efficient activities will expand at the expense of less efficient ones. Moreover, the extent of incentives should not exceed that dictated by social profitability considerations so as to encourage efficient activities involving both export expansion and import substitution. In practice, rates of export subsidies may exceed nominal tariff rates on a temporary basis in order to provide additional subsidies to new exports, should externalities be obtained in exporting through learning-by-doing. On the other hand, export subsidies should not exceed certain limits for two reasons. First, they distort international competition and may provoke retaliation; and second, they may be ill-advised from the point of view of budgetary and administrative costs. To ease the burden on the budget, the level of subsidies should be phased out in accordance with the reduction in the tariff levels over a certain period of time announced in advance.

5.10 The third approach, which consists of an alteration of the exchange rate as well as the tariff rates coupled with the use of export subsidies, appears to be the most sensible approach to follow in the current economic context of Nigeria. This conclusion is based on the following considerations. First, the use of exchange rate policy alone would call for a substantial adjustment of the Naira, which may be politically unacceptable. Second, retention of the current trade and exchange rate policies and use of export subsidies alone could be extremely costly to the economy. Finally, a combination of exchange and tariff rates adjustment will not be enough to eliminate the anti-export bias. There could be some resort to explicit export subsidies to eliminate any remaining anti-export bias due to retention of some protection either on grounds of the infant industry argument or because adjustment in the trade regime would only be brought gradually and some goods would have to remain quite highly protected. The current policy of effective

depreciation of the exchange rate through the 'crawling peg' is a step in the right direction which should be continued. On average, the Naira depreciated by 11 percent between 1980 and 1981 vis-a-vis the U.S. dollar.

5.11 Other Policy Instruments. In addition to trade and exchange rate policies, there are a number of specific policy instruments which can be used to promote exports. These include:

(i) Financing of production and exports at subsidized rates of interest. Export credit subsidies provided for working capital can help exporters, but subsidized credit for investment capital should be avoided as they tend to artificially cheapen capital vis-a-vis labor and therefore lead to a misallocation of resources. As noted earlier, export financing has been moved into the preferred category by the Central Bank, but commercial bank lending for exports has so far failed to respond noticeably. (Exports by the marketing boards are financed solely by the Central Bank). Inadequate demand for credit for export activities should be seen as a result of the current degree of anti-export bias of the incentives system;

(ii) Introduction of retained accounts of foreign exchange for all exporters. This is proposed to guarantee exporters a percentage of foreign exchange earned to be used for imports of raw materials without having to go through the procedures of the Central Bank. The retained accounts scheme will help increase exports and reduce unrecorded trade (smuggling). The scheme has been used in many countries including Pakistan, Indonesia, India, and Yugoslavia; and

(iii) Greater provision by the Government of prepared sites and infrastructure, including establishment of trading houses that facilitate international marketing and exports, and creation of industrial free zones. The establishment of industrial free zones would be particularly beneficial to Nigeria in its early phase of an export-oriented strategy. The benefits to the country would arise from the development of backward linkages and from the transfer of management and know-how which can have positive demonstration effects on the industrial sector. However, without a change in policy bias to one favoring manufacturing exports, the long run benefits derived from such zones will be lost to Nigeria. In addition, it would be in the interest of the country to limit the number of such zones to one or two pilot zones at this stage.

5.12 Awareness of Export Possibilities. As pointed out earlier, there is a need to recognize the urgency of promoting non-oil exports and to move ahead rapidly with effectively designed and implemented measures to accomplish this purpose. The argument in favor of satisfying domestic demand before exporting is not a valid one and can rule out many industrial activities which on relative efficiency grounds might be good candidates for export-oriented development. In addition, the choice between expanding capacity in manufacturing activities with a view to exporting versus investing in backward

(e.g. motor vehicle) or forward (e.g. steel) integration should be examined carefully. In other words, opportunities for cost-saving horizontal and vertical specialization have to be identified and exploited. The emphasis here on export-oriented industries should not be viewed as a neglect of import-substitution industries. What is implied is an incentives system free of distortion with respect to both activities.

Agricultural Sector

5.13 Rehabilitation Program. As noted earlier (paras 4.09-4.10), the stock of obsolete trees must be replaced with higher-yielding materials if production is to increase in the future. Two aspects should, however, be taken into account in carrying out such a rehabilitation investment program. First, investment should go into the rehabilitation of those tree crops for which the prospective rate of return, at world prices, is relatively high. These would include oil palm and rubber. This is crucial if Nigeria has to compete in export markets. Second, the question of how these investments are to be made is also important. Is it by means of large scale investment, implying ambitious government efforts; or by means of adequate price incentives leading smallholders to undertake the required planting investments with some relatively modest support from the Government? The merit of each of these two approaches must be considered carefully. It is, more likely that what is required in Nigeria is a combination of both of these alternatives with more emphasis on the private initiative.

5.14 As far as the prospective returns to investment in rehabilitating the oil palm and cocoa sectors are concerned, the longer term outlook appears unattractive. Especially in the case of cocoa it is difficult to recommend costly major rehabilitation investments in the light of the substantial drop in the real world price projected for the next ten years. In the case of other commodity crops, such as cotton, groundnuts and rubber, for which there appear to be a favorable longer term world demand, investment by Government and by farmers in expanding production for exports would appear to be economically justified. The upward price trend is not, however, the only determinant of the economic viability of investment in the growing and processing of these commodities. In the case of cotton and groundnuts, the labor-intensiveness of their production coupled with a rising price of labor may make them increasingly less attractive relative to other crops competing for smallholders' time.

5.15 Inputs Supply System. The supply system for seeds or planting materials, fertilizers, pesticides, and farm implements on smallholdings appears to be inadequate to serve the needs of smallholders. Supplies frequently fail to reach smallholders needing them and there is apparently an extensive black market in fertilizers. The system of state procurement and distribution as currently set up is not functioning well, even though it is currently handling only relatively small amounts of inputs. The supply system is likely to be strained further by the prospective large increase in volume of modern inputs to be procured and distributed to smallholders under the Fourth Plan. It is therefore recommended that the supply system for delivery of inputs to smallholders be reexamined.

5.16 Most likely, it would be more effective to encourage private sector, profit-maximizing entities to take over a large share of the responsibility. This would require either that the private sector entities be enabled to procure imported and domestically produced inputs at subsidized prices for resale to farmers, with a markup sufficient to give them acceptable margins; or, alternatively, subsidies could be eliminated or reduced. Since in the case of fertilizers a black market exists, it is likely that because of generally inadequate supply many farmers do not obtain fertilizer at anywhere near the subsidized price. Farmers having to procure fertilizer on the black market could be paying full price or even higher. The current situation appears to be one of excess demand. Perhaps provision of limited amounts of fertilizer at subsidized prices has some moderating effect on the free market price and speeds up the rate at which farmers adopt modern technology packages, but it is not clear that this is so.

5.17 Servicing Agencies. Experience has shown that for effective dissemination of technological innovations, proper servicing agencies must be established to provide support to individual smallholdings. In this respect, the experience of some other countries, such as Malaysia, 1/ may be worth examining in light of the prevailing system of communal land ownership in Nigeria.

5.18 Nigeria today apparently no longer has large tracts of suitable land over which no community claims rights. Furthermore, since communal ownership of land is the rule, farming schemes in Nigeria must of social necessity be associated with developing the land of a particular village or extended family for the benefit of members belonging to the same community. This requirement could act as an obstacle to setting up conventional type land settlement schemes under which settlers would eventually be given ownership of the holdings they operate. This problem should not arise with a type of scheme where no transfer of land ownership rights would be involved and the community itself would be the sponsor.

5.19 It should be emphasized, however, that we do not advocate any single development strategy. Group farming is not necessarily suitable in all areas of the country. Rather it would seem prudent to have a mix of production units, i.e. estates, land schemes and individual smallholdings so long as they are economically viable and compatible socially.

1/ In Malaysia, there are several types of land development schemes ranging from the high-cost type sponsored by the Federal Land Development Authority (FELDA) to the low-cost type sponsored by the Federal Land Consolidation and Rehabilitation Authority, which appear to be potentially adaptable to Nigerian conditions. Most land schemes in Malaysia are based on the Felda model, but an alternative approach has been proposed by the Rubber Research Institute of Malaysia (RRIM). The underlying principle of the RRIM approach, which was proposed to avoid the management problems associated with the FELDA type scheme, is that the nation owns the land which is merely leased to participants on a long-term basis. The sponsoring authority provides the land, complementary development expenditure, housing, basic infrastructure, and management expertise, while participants provide their labor. The cost of bringing the crop to maturity and housing is recovered in installments (inclusive of interest) from participants once the scheme begins production.

5.20 Research and Development. While the mission did not attempt to look into the work of the Nigerian research institutes, all of which are in the public sector, the experience of other countries, such as Malaysia 1/ and Thailand, suggests that other areas aside from research on breeding and selection of high-yielding materials that can have high pay-offs in the Nigerian context include research on pest and disease control, and optimal cropping systems. In spite of the multiplicity of research and development organizations in Nigeria, there is no central agency or overall planning and coordinating body responsible for the interests of its various export crop producers. Although the commodity boards have been given responsibility for the development and rehabilitation of the crops under their aegis, it is unrealistic to expect that they will be able to discharge these wide and sweeping responsibilities efficiently without support from a central agency of the type described above. The need for such a central agency has been a recurring theme in earlier Bank reports. It is recommended that, before a decision is finally taken to set up such a body, it would be useful to examine similar organizations in other countries.

Manufacturing Sector

5.21 Emergence and substantial growth of manufactured goods exports will depend heavily on the extent to which the anti-export bias in the current incentives system is reduced. In other words, manufactured exports cannot emerge on any large scale, unless Government takes effective actions to reduce substantially the asymmetry in profitability between production for the domestic and export markets. To achieve this, several measures need to be taken. In addition to those of a general character (applying equally to agriculture and manufacturing) and mentioned earlier in this chapter, other measures discussed below should be considered.

5.22 It is important that the Government provide adequate physical infrastructure and services of a "public good" nature to manufacturing firms. Development of infrastructure (essentially industrial sites, power and water supply) and provision of industrial support services (trade information center and labor training) need to be emphasized. It may be that firms should be given the option of developing their own infrastructure and being reimbursed in part by the Government via the instrument of tax credits. In addition, particularly needed are increased efforts to attract foreign investors, technical assistance provided to potential exporters in marketing their products, and coordination of national export policies under the aegis of the Nigerian Export Promotion Council (NEPC). Moreover, a number of other fiscal measures need to be examined. These include profits tax incentives and refunds of duties as well as other indirect taxes paid on manufacturing inputs.

1/ The Malaysian success in rubber research and extension as a development strategy was accomplished by securing commitment of extensive resources by both the private and the public sectors to a comprehensive and integrated program of basic and applied research. The cornerstone of this effort was a program to breed and select high-yielding materials to increase yields and lower production costs. This breeding and selection program was complemented by a replanting scheme to diffuse high-yielding materials and related innovations to the industry.

5.23 From the sector-specific analysis presented briefly in Chapter 4 and in more detail in Annex 2, the following recommendations and suggestions should also be considered:

(i) In general, all the oil milling industries could benefit from subsidies to growers/gatherers of the crops supplying their raw materials. In addition, for the palm-milling industry, it is recommended that a greater use of international managerial expertise be encouraged by the Government because of the acute deficiencies in this area. This should be facilitated by the recent reclassification of agro-industries into Schedule III (60 percent foreign ownership of equity allowed). For the palm kernel crushing industry, the supply side constraints on production (irregular supply of kernels due to irregular evacuation of produce, intermittent electricity supply, etc.) must be removed so as to bring the industry up to full capacity operation. For groundnut milling and cotton seed industries, it is on the supply side of raw materials that actions should focus.

(ii) In the textiles industry, a policy of lifting the import ban and replacing it with quotas or tariffs in order to reduce smuggling and encourage firms to adopt a policy of horizontal specialization is needed. It should be stressed that for this policy to work, a general policy of subsidizing exports to overcome the anti-export bias inherent in the incentives system must be put into effect. This would include lowering costs by improving incentives to cotton growers and letting backward integrated textile manufacturers make their own transportation arrangements to get raw cotton instead of obliging them to let the Cotton Board make these arrangements for them.

(iii) In the cement industry, it is recommended that an improvement in incentives be coupled with encouragement to firms in the industry to have more recourse to international managerial and technical expertise.

(iv) In the steel industry, the possibilities of a vertical specialization strategy involving the production of semi-finished steel using the gas-fired direct reduction process should be explored. This is to take advantage of what may be a significant cost advantage based on the use of non-associated gas in the highly energy-intensive process of semi-finished steel production.

(v) In the motor vehicle assembly industry, a policy of horizontal specialization to limit the number of models built should be followed in order to achieve the economies of scale necessary to lower unit costs of production. Subsidies are necessary to encourage exports from this industry.

(vi) In the chemical and petro-chemical industries, alternative possibilities for the use of non-associated gas should be considered.

Future Economic and Sector Work

5.24 It should be acknowledged that most policy recommendations in this chapter are general in character and will require further examination in order to be implemented. The formulation of specific policy reforms would depend, to a large extent, on the work in the following additional areas.

5.25 General Economic Issues. There are basically two outstanding issues that need to be addressed: the exchange rate policy and the exchange control regime.

(i) Work to determine the extent to which the exchange rate is overvalued is of critical importance. This will help determine the degree of anti-export bias operating against the development of non-oil exports and also the extent of adjustments required in tariffs. The work would include an examination of the various changes that have occurred in the balance of payments, the trade regime, public expenditures, and the differential inflation rates between Nigeria and its major trading partners. As indicated earlier, this work is part of the ongoing macro-policy work undertaken by the Bank.

(ii) Work on the exchange control regime and licensing would include examination of the allocation scheme of foreign exchange by the Central Bank, 1/ repatriation of dividends and debt payments, and licenses for foreign exchange for marketing abroad. Moreover, special attention might be given to the following questions: To what extent could reduction of the incentives system's current degree of anti-export bias contribute to a moderation of the demand to transfer capital abroad? To what extent do efforts to control such capital flows have an adverse effect on the development of non-oil exports through legal channels (via restrictions on exporters' accounts abroad, requirements that export proceeds be surrendered to the Central Bank, export licensing, etc.)? How consistently have licensing restrictions been enforced? This study is of particular importance to industries with a high degree of product heterogenity and quality differentiation such as textiles.

5.26 Sector-Specific Work. From the review of various industrial subsectors and agricultural commodity export crops, the following areas must be considered for further work:

(i) Additional work on some of the subsectors treated in this report, such as textiles, steel, and energy-based industries, would be desirable to clarify in greater depth the export potential of these

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1/ While it is principally imports of "non-essential" consumer goods which are subject to licensing, an increasing number of intermediate goods are subject to import license requirements as well. Furthermore, based on various discussions in Nigeria, it appears that delays in processing applications for imports of spare parts, raw materials, and capital equipment have contributed to the difficulties in maintaining a steady flow of imports of these goods.

industries and the specific problems which need to be addressed. Furthermore, studies of other major subsectors (such as light engineering, tires and tubing, and fertilizer), where export potential is indicated by low or negative effective rates of protection, are required. In general, careful attention should be given to the export potential of all industries currently enjoying negative or low effective rates of protection, or which have high effective rates of protection but show evidence of "excess" profits (such as soap and detergents).

(ii) Work to determine the relative efficiency of some industries from which exports might be encouraged is needed. The idea would be to acquire the information required to calculate domestic resource-cost coefficients (DRCs) as well as estimates of subsectoral productivity growth. In this respect, the most notable shortcoming in the available data is the lack of detailed capital stock data. To develop capital stock estimates, a survey will have to be carried out in order to obtain benchmark estimates.

(iii) A systematic study of commodity board pricing policies is also recommended. Special attention should be given to why the abolition of export taxes on producers (excluding cocoa producers) which came with the reform of the marketing board system in 1977 has not led to better export performance over the last four to five years.

(iv) Unrecorded regional trade is an important topic which should be included among future work items. Special attention should be given to determining what modifications of the incentives structure would be needed to bring this trade into legal channels. This study should also address the question dealing with costs and benefits of more trade between ECOWAS member countries.

5.27 In a number of respects, the proposed work program requires close collaboration and coordination between the various ministries involved, mainly Industry, Commerce and Finance, as well as the Central Bank and NEPC. In addition, the program should be seen as an integral part of another proposal for a program of industrial sector work as well as industrial incentives system reform which will soon be discussed with the Nigerian Government.

TECHNICAL NOTE ON THE CALCULATION OF THE BIAS AGAINST EXPORTS

Anti-Export Bias

The bias is defined, according to Balassa and Associates (The Structure of Protection in Developing Countrties, 1971), as the percentage excess of domestic value added obtainable as a result of protection in producing for domestic markets over that obtainable in exporting. The bias against exporting in the ith industry (Xi) is expressed as follows:

$$Xi = \frac{Wi - Yi}{Yi} \qquad (1)$$

where Wi is domestic value added as a result of producing for domestic markets, in the ith industry; and Yi is domestic value added as a result of producing for export markets, in the ith industry. Equation (1) can be written as:

$$Xi = \frac{(1 + t) - (1 + t_m)a_m - (1 + t_n)a_n}{(1 + s) - (1 + t_{mx})a_m - (1 + t_{nx})a_n} - 1 \qquad (2)$$

where t is the tariff rate (or equivalent tariff rate in the case of an import quota or ban) on the industry's output, t_m is the average tariff rate on traded goods inputs used by the industry, s is the export subsidy, and t_{mx} is the net-of-duty-drawback tariff rate on trade inputs used to produce goods for export in the ith industry. The coefficients a_m and a_n are the free trade no-distortions input coefficients for traded and non-traded inputs, respectively used in production in the ith industry, t_n and t_{nx} are the rates by which actual prices of non-traded inputs used in the production of output destined for the domestic market and output destined for the export market respectively, differ from the prices of non-traded inputs in the no distortions, free trade equilibrium situation.

Clearly, if $t_m = t_{mx}$, $t_n = t_{nx}$ and $s = 0$, as is currently the case in Nigeria, the formula reduces to:

$$Xi = \frac{t}{1 - (1 + t_m)a_m - (1 + t_n)a_n} \qquad (3)$$

Dividing both the numerator and the denominator by the domestic price of the industry, 1 + t, the formula can be rewritten as:

$$Xi = \frac{t/(1+t)}{1/(1+t) - \alpha m - \alpha n} \qquad (4)$$

Where $\alpha m = a_m (1 + tm)/(1 + t)$ and $\alpha n = a_n (1 + t_n)/(1 + t)$ are the input coefficients at domestic prices, if input coefficients are assumed to be fixed in physical terms. By definition, the value added ratio at domestic prices is $1 - \alpha m - \alpha n$. The denominator of expression (4) is to be interpreted as the difference between the ratio of the world price of the industry's product to its domestic price (1/(1+t)) and the ratio of the value of inputs at domestic prices to the domestic price of the industry's product.

Treatment of Import Duty Rebate System

Assuming full rebates of the import duties, value added in production for exporting will equal or exceed value added in production for the domestic market if:

$$1 - \alpha m - \alpha n \leq \frac{1}{1+t} - \frac{\alpha m}{1+t_m} - \alpha n \qquad (5)$$

After some manipulation, this reduces to

$$t \leq \alpha m \cdot t_m \qquad (6)$$

Since αm is less than one, the expression above becomes

$$t \leq t_m \qquad (7)$$

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NIGERIA

NON-OIL EXPORT PROSPECTS

ANNEXES

ANNEX 1

INSTITUTIONAL SETTING OF TRADE PROMOTION

1. Nigeria's export promotion drive effectively began with the establishment, in 1976, of the Nigerian Export Promotion Council (NEPC), although the Government's desire to boost non-oil exports dates back to 1972 as reflected in various official documents (e.g. Third National Development Plan). NEPC is the product of a joint Nigerian Government/International Trade Center (UNCTAD) effort to develop the necessary infrastructure for trade promotion in Nigeria. The basic idea was to set up a "focal point" institution capable of coordinating the national trade expansion programs.

2. Prior to the creation of NEPC, export promotion activities were peripheral and mostly handled by the Trade Promotion and Trade Fairs Division of the then Federal Ministry of Trade (now Ministry of Commerce) and by private sector organizations such as chambers of commerce and industry associations. In addition, marketing of Nigeria's primary commodities was the responsibility of the Nigerian Produce Marketing Company which later on was dissolved into six commodity boards. These organizations, however, were neither adequately equipped to plan for the foreign trade sector nor did they have profound technical and managerial capabilities to carry export potential surveys.

Profile of Existing Institutions

3. Nigerian Export Promotion Council. At present, the statutory system governing trade promotion in Nigeria centers around the functioning of the Nigerian Export Promotion Council. According to its mandate, the Council is envisaged to operate as the principal apparatus of the Government, bringing together public and private trade interests. These interests are spelled out at the level of the governing body of the Council that constitutes a linkage-point forum for almost all the relevant institutions concerned with trade development.

4. Sitting on the Council are representatives of the public and private sectors. The original Council had 36 members, six of which were representatives of the private sector. The Amendment Decree of 1979, however, reduced the membership of the Council to 22, consisting of:

(i) A chairman from the private sector, appointed by the then Commissioner of the Federal Government (now the President);

(ii) Seven representatives of states, appointed in rotation;

(iii) The Permanent Secretary, or his representative, of the Federal Ministries of Agriculture, Economic Development (now National Planning), External Affairs, Industry, Commerce, and Transport;

(iv) The Governor of the Central Bank of Nigeria or his representative;

(v) A representative of the Nigerian Chamber of Commerce, Industry, Mines and Agriculture;

(vi) A representative of the Manufacturers Association of Nigeria;

(vii) Four persons appointed by the then Commissioner to represent special interests in insurance, banking and similar commercial institutions; and

(viii) The Director of the Council.

5. NEPC is designed to act as a catalyst for all trade related matters. To that end, the Council is supposed to perform a specific set of functions. These functions are fully stated in the original Decree No. 26 of 1976 and can be summarized as follows:

(i) to advise the Federal Government on measures to encourage exports;

(ii) to assist the Government in identifying export-oriented industries and in stimulating the growth of non-traditional exports; and

(iii) to create the necessary export facilities in the areas of financing, trade information, trade arbitration and shipping, training and marketing activities.

6. Since its inception, NEPC has been invariably preoccupied with organizational and financial matters. As a linchpin to its activities, the Council established, in 1977, its own Secretariat. The organizational structure of the Secretariat has so far gone through a series of revisions apparently due to emergence of further functional complexities. According to the new organizational structure, functions of the Secretariat are divided among 3 departments, 6 divisions, and 26 sections. The Secretariat is staffed with 54 persons with the following distribution:

Director	1
Professional Officers	16
Trade Promotion Assistants	5
Secretarial Staff	12
Drivers	8
Messengers and Cleaners	12
Total	54

7. Throughout its existence, NEPC has been assisted, though not continuously, by a number of trade promotion advisers from ITC. These advisers helped in laying the foundation of the NEPC Secretariat--including its aims, working methods, and personnel--and contributed to a large extent in

institution building activities of the trade development network in Nigeria. With such assistance, NEPC has been able to accomplish the following tasks:

(i) Organizing a high-level symposium on export development and promotion in Nigeria, in 1977, to enhance nationwide export consciousness;

(ii) Establishment of the Nigerian Committee on Trade Procedures (NITPRO) in 1977. The Committee comprises the representatives of 17 public and private bodies with the aim to simplify the country's trade procedures. NEPC provides the Secretariat of the Committee. NITPRO has established three sub-committees dealing respectively with documentation and procedures, exchange control and licensing, and communication. It also receives inputs from the Secretariat of the Simplification of International Trade Procedures (SITPRO, London) as well as from UNCTAD/FALPRO (Facilitation Unit in Geneva);

(iii) In 1978, NEPC and ITC jointly held a seminar on world trade in spices in Kaduna. Attending the seminar were representatives of federal and state governments, agricultural and research institutions, marketing boards, quality control organizations and exporters. The seminar examined growth prospects of the Nigerian spice industry in the world market and reviewed, in particular, promotional aspects of the domestic production of chillies, ginger and curry powder. Recommendations were also made for the export marketing of these spices. Furthermore, as a follow-up action, NEPC helped to inaugurate a panel on spices comprising representatives from the Federal Ministries of Trade and Agriculture and Rural Development, Ahmadu Bello University, Ahmadu Bello University Institute of Agricultural Research, Funtua Agricultural Development Project, Groundnut Board, and Kaduna Chamber of Commerce. The panel studied the harvesting, marketing and curing methods of spices in Nigeria and made recommendations for further actions;

(iv) Completion and publication of the Nigerian Export Directory which is to serve as an inventory register of Nigeria's export sector. Completion, though in manuscript, of a handbook on trade documentation in Nigeria;

(v) Carrying out a survey on export potential of Nigerian products and the possibility of exporting these products to ECOWAS countries. The survey was done in collaboration with the Economist Intelligence Unit of the United Kingdom as well as the Enterprise Consulting Group of Nigeria. The interim report of the consultants identified a number of product groups with export prospects such as wood and wood products, light engineering products, textiles, enamel wares, plastic wares, and detergents, soaps, cosmetics and other toilet preparations. The major countries in the ECOWAS sub-region forming a target market for Nigerian products were identified in the report as Ivory Coast, Senegal, Liberia, and Sierra Leone. The survey is expected to be followed by export market development studies;

(vi) NEPC participated in an Implementation Committee set up by the Government to work out details and types of the export financing and incentives suitable for Nigeria. Out of the incentives package suggested by the Committee, the following are either in operation or soon will be: export financing facilities (i.e. commercial bank credit to exporters to cover pre- and post-shipment financing), tax incentives to manufacturing exporters, duty drawback, an export development fund, and an export credit guarantee and insurance scheme; and

(viii) NEPC has participated in various international and local trade fairs and run a survey on handicraft production in Nigeria. The Council has also set up a Trade Information Services Library Unit and collected statistical information on production, finance and trade patterns of some African and EEC countries. Moreover, it liaises with some international organizations such as SITPRO (London), UNCTAD/FALPRO (Geneva), KENPRO (Kenya), DANPRO (Denmark), JAPRO (Japan), and INDPRO (India).

8. Other Institutions. In addition to the central role played by NEPC in Nigeria's trade promotion, there exist a number of other institutions such as Federal Ministries of Commerce, Industry, National Planning, Foreign Affairs, the Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture (NACCIMA), and Manufacturers Association of Nigeria (MAN) which are directly or indirectly engaged in trade related activities.

9. It should be noted, however, that while some of these organizations such as the Federal Ministry of Commerce are actively involved in trade expansion programs, the activities of others have been marginal and in many instances negligible. The remaining part of this section will be devoted to a brief sketch of the institutional framework of these organizations.

10. Trade policy formulation in Nigeria lies within the functional responsibility of the Federal Ministry of Commerce (FMC) which is also in charge of trade missions and trade fairs. Trade fairs are done by the staff of the Lagos International Trade Fair which handles the technical procedures for trade fair participations and exhibitions. Moreover, commercial representation abroad is done by the FMC. There also exists a Ministry of Commerce in each of Nigeria's nineteen states.

11. The Federal Ministry of Industry is in charge of identification and development of export-oriented industries. The Ministry's contribution to the export expansion programs has so far been limited to the approval of the export incentive proposals (see para. 19) set by NEPC and provisions for the establishment of industrial free zones.

12. Coordination of trade-related matters, while unequivocally pronounced as the principal function of NEPC, still remains in the hands of the Ministries of Commerce and Industry. The Export Commodity Coordinating Committee, under the responsibility of FMC, coordinates various activities of the commodity boards concerning transport, postal services, ports, customs, etc.; and the Industrial Development Coordination Committee, which is under the responsibility of the Federal Ministry of Industry, administers the trade incentives system.

13. Intervention in crop marketing and export is the responsibility of the Federal Ministry of Agriculture (FMA) and its six affiliated commodity boards which were established in 1977. These boards are coordinated by FMA and are responsible for both production and marketing. Some of them are responsible for more than one product indicated in their name and all of them enjoy monopolistic export rights. Their names and geographical distribution are as follows: 1/

Nigeria Cocoa Board	- Ibadan
Nigeria Grain Board	- Minna
Nigeria Rubber Marketing Board	- Benin
Nigeria Palm Produce Board	- Calabar
Nigeria Groundnuts Board	- Kano
Nigeria Cotton Board	- Funtua

14. Among other institutions indirectly engaged in trade promotion activities,the Central Bank of Nigeria (CBN), the Manufacturers Association of Nigeria (MAN), and the Nigerian Chamber of Commerce, Industry, Mines and Agriculture (NACCIMA) occupy prominent positions. As a means of controlling the balance of payments situation and foreign exchange, CBN regulates the country's financial flow patterns through a set of trade-related guidelines and monitors operations of the commercial banks with respect to repatriation of export proceeds. In addition, it introduced in 1979 new guidelines whereby commercial and merchant banks are required to allocate at least 6 percent of their total loans and advances to export activities. The operations of MAN and NACCIMA have been marginal and mostly confined to their memberships in NEPC. However, MAN has recently been requested by FMC to introduce products for a promotional tour to ECOWAS countries while NACCIMA, in 1978, sent a trade mission to India and is currently establishing a Business Information Center. All these activities seem to be performed without coordination with NEPC.

Performance of the Trade Promotion System

15. While some of the immediate objectives of the Government in the area of trade promotion (e.g. institution-building) have been more or less fulfilled, the system of trade promotion, in general, is impeded by the absence of adequate compelling forces to stimulate exports. An examination of some fundamental issues may help clarify the point.

16. Firstly, the existing structure of the Nigerian economy is working against expansion of the export sector. Suffice here to mention that agriculture and manufacturing are the two sectors which have suffered the most (in terms of production and productivity) from an economy fueled with oil money, despite a rapidly growing domestic demand. Furthermore, inflation and an overvalued currency have made it extremely difficult to encourage exports. Secondly, even if we abstract from complexities associated with the economic environment, it is not hard to see why many of the export-incentive instruments introduced during the past five years remain either inoperative or

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1/ The Roots and Tubers Board was abolished in 1979.

ineffective. This is due on the one hand to the lack of a serious commitment on the part of Government to boost non-oil exports, and on the other hand to the inherent deficiencies of the institutions dealing one way or the other with trade promotion programs.

17. True, there exists an authentic desire, among government circles, concerning realization of the urgent need to diversify the country's economic structure towards more export-orientation, particularly in the light of rapid depletion of petroleum resources. Nonetheless, this genuine intention has not materialized partly because the government so far has failed to secure adequate coordination among various trade promotion entities. For instance, the Nigerian Export Promotion Council has not been given all the necessary authority and tools to perform the role of a coordinative body. The Council's legal status has yet to be convened by the National Assembly 1/ and the major trade promotion tools, namely trade missions, trade fairs participation and the network of trade attachés abroad, fall outside NEPC's direct influence.

18. NEPC has not been able to function optimally as expected from a focal point institution. Its managerial capability could be strengthened by recruiting an adequate number of skilled staff. The Council faces difficulties in recruiting competent staff partly because of its low salary structure. The institution suffers from problems of overlap with other agencies dealing directly or indirectly with export promotion. The working relationship between NEPC and other Federal Ministries in charge of trade promotion is almost inexistent. There is also no systematic communication between NEPC and the business circles as well as the commodity boards.

19. The organization's trade information services section is handicapped due to inadequate facilities and equipment. Moreover, the export incentives proposed by NEPC, such as export financing facilities, tax incentives, duty drawbacks, export development fund and export credit guarantees, remain largely inoperative. As long as NEPC lacks tools to perform the role of a coordinative body and given the peculiar economic situation in the country, there is serious doubt that these incentives can be effective in motivating Nigerian businessmen to export.

20. In conclusion, the institutional framework of the Nigerian export promotion system cannot function successfully unless there is a greater appreciation by the government officials of the need to boost non-oil exports. This requires reorientation of the Government's policies and programs towards more exports. NEPC must be strengthened in order to be able to harmonize all trade-related activities at the public and private sectors. Reinforcing the working relationship between NEPC and other institutions concerned with trade development forms the prerequisite to that endeavor.

1/ The idea is to restructure the composition of the Council by enlarging its private sector representation.

ANNEX 2

REVIEW OF SOME INDUSTRIAL ACTIVITIES

INTRODUCTION

i. Six subsectors have been reviewed in this annex. They include vegetable oil milling, textiles, cement, steel, vehicle assembly, and chemicals and petrochemicals. In 1977 their share in the total value added and employment of the manufacturing sector accounted for 22 percent and 35 percent, respectively. Today, their contribution would be even greater because of the large investments that have gone into these activities since then. Among these industries, textiles and vehicle assembly are highly protected.

ii. The activities have been selected because of their importance in terms of value added and employment (vegetable oils, textiles), economies of scale (steel, cement, vehicles) and the importance of domestic raw material base (chemicals and petrochemicals, steel, textiles, vegetable oils). In fact these industries fall into three areas: traditional exports (vegetable oils), new large industrial projects, underway or planned, in which there may be excess capacity (steel, cement, chemicals and petrochemicals, and vehicles), and finally prospective new exports from already established industries (textiles).

iii. Another approach would be to consider only demonstrably efficient industries as candidates for export promotion. Efficiency would be inferred from the degree of effective protection extended to the industry and/or from evidence of excess profits.

iv. However, to investigate only the presumably efficient disprotected and protected but excess profit industries, would be to misconceive the problem. Some industries, which are currently highly protected and clearly inefficient in their use of resources in static terms, may, through learning by doing and progressive exploitation of economies of scale, be expected to prove viable in a longer-term perspective. Furthermore, important users of resources and contributors of value added which may appear, in the light of an effective protection study, to be inefficient, need to be examined to determine the causes of the apparent inefficiency. We have noted earlier in the main text that a high net effective rate of protection is not an infallible indication of even static inefficiency. An industry may receive protection well in excess of the amount needed to enable firms in the industry to earn a normal rate of return on their investment. Evidence of considerable excess profits may then be taken as an indicator that protection is excessive and that the industry may be efficient enough, as currently operated, to survive a move to a minimal no-interventions trade regime.

v. But what if firms in the industry are failing to earn an acceptable rate of return or even an operating surplus due to failure to apply best practice technology (defined in an economic sense, in light of national factor endowments), or to achieve full economies of scale due to factors beyond their control such as inadequate allocation of foreign exchange to buy imported raw materials and spares? There would apparently be no excess profits--rather, losses--but comparatively minor investments in infrastructure and improved management and skills could substantially change the picture. An a priori judgement on the matter, however, would implicitly discount this possibility.

I. VEGETABLE OILS

Price Distortions

1.01 Effective Protection. According to Bertrand and Robertson's calculations, the degree of disprotection for groundnut milling was very large in 1977 (-174 percent assuming 35 percent exchange rate overvaluation). The large negative net effective rate was due to the fact that a binding ex-mill price ceiling on groundnut oil resulted in negative value added at domestic prices, even though value added at world prices was positive. Thus, the Government's price control policy must have inflicted considerable losses on groundnut crushing mills; the allowed ex-mill prices of the groundnut oil and cake obtained from a ton of groundnuts were not high enough to pay for the groundnuts, let alone for other material inputs, labor services, etc. However, using the structure of protection for 1979, Robertson's study shows a considerable reduction in the degree of disprotection imposed on the production of groundnut oil and cake; the net effective rate of protection is only -24 percent (under the same assumption). This dramatic reduction is rather artificial since the recent estimate seems to be based on more accurate information.

1.02 In the case of cottonseed crushing, the degree of disprotection increased between 1977 and 1979; the net effective rate of protection had gone from -1 percent to about -17 percent over the same period (assuming the same rate of overvaluation of the Naira). The price ceiling does not appear to be effective.

1.03 According to the same studies, palm milling 1/ is found to be receiving negative net effective protection in 1977 and 1979 (-25 percent, -33 percent, respectively). These estimates do not seem to be in accord with the facts. Indeed, internal wholesale prices for palm oil in 1977-79 were on average two to three times import parity prices, according to information from the Kilby Study of agro-industry, the World Bank oil palm subsector review and the Bank's recent agricultural pricing and marketing study note. 2/ The marketing study indicates a large positive net effective rate of protection of 174 percent in 1979.

1.04 Bertrand and Robertson in their discussion of the soap and detergents industry, note that the Nigerian soap-making industry uses considerable amounts of palm oil and that it was able to obtain the bulk of it locally at close to the import parity price. 3/ This may seem to contradict other

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1/ Defined as the processing of palm fruit to extract palm oil from the pericarp of the fruit, and to extract the palm kernel as well.

2/ P. Kilby, A Review of Prospects and Problems in Agro-Allied Industries, World Bank, mimeo, November 3, 1980. World Bank, Oil Palm Sub-Sector Review, July 1981. World Bank, Agricultural Marketing and Prices Sector Note, 1980.

3/ Import parity price means the CIF price plus internal transport and port clearing charges. By export parity price is meant the FOB price minus internal transport and port clearing charges.

reports indicating that by 1977 the domestic wholesale price of palm oil was close to three times the import parity level, but it should be recalled that palm oil used for soap manufacture or "technical oil" is of a much lower quality than edible oil and would presumably command a correspondingly lower price. 1/

1.05 The mechanism by which protection has been given to the oil palm sector and to palm milling has been through the application of quantitative controls on vegetable oil imports. With the disappearance of palm oil exports in the early seventies, as an ever growing domestic demand (approximately 3.5 percent per year) outstripped domestic supply which had been virtually stagnant since the fifties or sixties, rigid controls on vegetable oil imports were introduced. The real price of palm oil rose sharply from 1972 through 1976. Since then, however, it has been declining consistently due, apparently, to the progressive relaxation of the controls on edible vegetable oil imports. More recently, edible oil imports have been put on open general license, meaning an effective end to restrictions on edible oil imports.

1.06 The effects on production, consumption, and imports of palm oil of the palm oil milling protection have been estimated to be of substantial magnitude. According to a partial equilibrium analysis exercise summarized in the agricultural sector pricing and marketing note on Nigeria, at a minimum due to prevailing price distortions, production of palm oil in 1979 was 34,000 metric tons above what it otherwise would have been, and consumption was 68,000 metric tons less than what it otherwise would have been, resulting in imports of 102,000 tons less than otherwise. The high estimates are respectively: production, 205,000 tons greater than otherwise; consumption, 102,000 tons less than otherwise; imports 307,000 tons less than otherwise.

1.07 Detailed information on the degree of effective protection extended to the palm kernel crushing industry is not available but the Palm Produce Board in recent years has purchased palm kernels from producers at prices well above export parity prices. The marketing and pricing policy note 2/ suggests that exports of both palm kernels and palm kernel oil, neither of which finds much of a market inside Nigeria 3/, are currently being subsidized. The price recently being paid to producers by the Board was ₦200 per metric ton, when palm kernels were selling in Europe at ₦170 per ton. Handling charges of ₦50 per ton brought the Board's total cost per metric ton of palm kernels exported up to ₦250 per ton, giving an export subsidy of 47 percent of the price c.i.f Europe or 67 percent of the export parity price of ₦120 per ton. In spite of this large subsidy, many palm oil producers, rather than selling kernels to the Palm Produce Board, apparently find it more profitable to use the kernels to fuel their boilers.

1/ For a discussion of quality differences in palm oil, see Helleiner, 1966 pp. 64-65 and 91-92.

2/ "Oil Palm and Groundnuts: Background to Pricing Policy", Supporting Paper 2.

3/ The Nigeria Industrial Sector Memorandum makes a reference to small quantities of palm kernel oil produced at the village level being used "mainly for soap and medicinal purposes" (Annex B, page 8).

1.08 Since palm kernels are a joint output along with palm oil, the Palm Produce Board's policy of paying above export parity prices for palm kernels amounts to subsidizing the production of palm oil as well as the production and export of the kernels themselves. Thus, trade policy in recent years in Nigeria has given a double incentive to palm oil production: controls on imports of vegetable oils have turned palm oil, along with other domestically produced vegetable oils, into a non-traded good, and have raised its price far above the import parity price level, while subsidization of palm kernel exports has made palm fruit milling more remunerative by raising the price of its other output, kernels.

1.09 However, it does not appear that the palm kernel crushing industry or the export of palm kernel oil is in any way subsidized. Since 1977, the palm kernel crushing industry has operated on the basis of a toll crushing fee which is supposed to be set high enough to make crushing profitable. The fee, which was initially set at ₦37 per ton of kernels, has been raised to higher levels, but apparently has not been sufficiently remunerative judging from the low volume of production.

1.10 Anti-Export Bias. The anti-export bias figures of Table 3.3 in Chapter 3 show that the percentage difference between value added from producing for the domestic market and that from producing for the export market is substantial for groundnut crushing, palm milling and cottonseed crushing activities, (estimated respectively at 237 percent, 155-349 percent, and 34-97 percent).

1.11 The validity of the concept of an anti-export bias coefficient for an activity like palm milling, which is currently in part for the domestic market (palm oil) and in part for the export market (palm kernels, palm kernel oil 1/ and cake) seem questionable. For an anti-export bias coefficient to make sense, it must be interpreted as the percentage difference in value added when the product which is in fact sold in the domestic market (i.e. palm oil) rather than in the export market. A similar difficulty arises in the interpretation of the nominal rate of protection for such an activity. Since there is more than one output, the nominal rate of protection is some kind of weighted average of price distortions on more than one good.

Recent Developments

1.12 Since 1971, commercial vegetable oil milling activity, as measured by the Central Bank index of manufacturing production in this sector, has declined dramatically. Over this period, estimated total production of each of the principal vegetable oils--namely palm oil, groundnut oil and palm kernel oil--has risen moderately.

1/ Since Nigeria possesses an important and rapidly expanding detergent industry, it may be that some palm kernel oil is used as an input into this industry.

1.13 While the Central Bank's index for all vegetable oils (base year 1972) fell from about 119 percent in 1971 to about 12 percent in 1980, and reached its low point in 1977 (5 percent), total palm oil production (artisanal as well as commercial), as estimated by FAO, was at no point in the post-1971 period less than the 1972 level. Total estimated production of groundnut oil, while fluctuating considerably over the period, was at no point less than 53 percent of its 1972 level and by 1979 was 130 percent of that level.

1.14 Total palm kernel oil production may be proxied here by palm kernel oil exports, taking into account the fact that the Nigerian market for palm kernel oil seems to be quite limited and that most commercial palm kernel oil production is likely to be for export. While there have been fluctuations of considerable magnitude and exports have not been at any point as high as would appear justified by the large kernel crushing capacity of the industry (380,000 tons), exports rose by 5 percent during the 1970s.

1.15 Taking a longer term perspective it can be seen from the Statistical Appendix that palm oil production has been experiencing a slight increase over the last 20 years. Marketing Board purchases had ceased by the late 1970s, and exports had virtually disappeared by that time. As palm oil exports declined, low quality inedible oil came to make up an increasingly large proportion of palm oil exports, with the volume of inedible palm oil exports actually growing rather than declining over the period 1962-76 (but thereafter exports cease). 1/ It should be noted that palm oil production estimates from different sources vary; according to the USDA figures, total palm oil production in 1976 was below the level of 1965 (515,000 versus 574,000 metric tons), while a similar comparison between years for edible palm oil shows a slight increase between 1965 and 1976. All that can be said with reasonable certainty is that palm oil production, rather than growing vigorously, appears to have been stagnant. Palm kernel oil exports from 1966 through 1979 fluctuate considerably but show no definite trend.

1.16 What has presumably taken place in the case of both palm oil and groundnut oil is a shift of production from large- and medium-scale commercial mills to small-scale artisanal operations (case of palm milling) or so-called "backyard crushing" (case of groundnut crushing). The industrial milling establishments have been unable, because of shortages of raw materials and/or pricing policy constraints, to operate to anywhere near their full capacity. Artisanal milling, at least in the case of palm milling, is technically much inferior to industrial milling in the sense of having a significantly lower physical extraction efficiency. 2/

1/ Inedible palm oil exports went from 4,800 metric tons in 1962 to 13,400 metric tons in 1976, according to the Industrial Sector Memorandum, World Bank, September 1978, (Annex B).

2/ See Kilby and Helleiner, for a discussion of extraction efficiencies of different processes in palm milling.

1.17 Groundnut Milling. In the case of groundnut milling, we may surmise that industrial milling activity has given way to artisanal activity because of a badly misconceived pricing policy. As noted earlier, the ceiling ex-factory groundnut oil price was set so low in 1977 as to make groundnut milling activity highly unprofitable. (However, from Robertson's recent study it would appear that the ceiling price on groundnut oil may have been set at a higher level after 1977.)

1.18 It has been argued that a fundamental problem impeding supply of groundnuts to industrial processors was the system of purchasing groundnuts through Licensed Buying Agents (LBAs). The price LBAs were paying farmers was too low to make production of groundnuts profitable to the farmers. Presumably, because of LBAs' inefficiency, they could not offer the farmers an attractive price for the groundnuts. Evidently, it must have been more profitable for farmers either to switch to producing other crops, or to sell their groundnuts to unlicensed buyers who in turn would sell to artisanal processors who could evade the price controls imposed on the industrial millers 1/, or export the groundnuts illegally. 2/ However, recent modification of the system to allow groundnut processors to buy in the market at not less than the statutory minimum price has not helped the situation of industrial processors since current market prices for groundnut oil have been so high relative to the controlled price of groundnut oil.

1.19 At prevailing free market prices, it has not been profitable for industrial establishments, subject to effective ex-factory price control, to buy groundnuts for crushing. Rather than saying that the supply of groundnuts to commercial mills has dried up, as some authors have maintained, it would be more accurate to say that demand for groundnuts from commercial crushing establishments at prevailing market prices has diminished. As a result, industrial processors have turned to other oil seeds such as cottonseed, making relatively minor investments in modifications of their equipment in order to do so. This in turn has caused serious problems for the cottonseed crushers.

1/ Artisanally crushed groundnut oil would presumably command more than the legal ceiling price if sold on the black market. Moreover, households, unable to get commercially crushed groundnuts, may simply buy groundnuts at well above the statutory price, and crush them themselves.

2/ The possibility of illegal exports of groundnuts on a relatively minor scale has been noted elsewhere (see Nigeria Agricultural Sector Review, Vol. II, Paper 2, p. 65). With the official Naira/CFA franc rate in April 1978 being half the unofficial rate, it seems that smuggling groundnuts would have been profitable despite the fact that producer prices in Nigeria were nominally higher (at the official exchange rate) than those in neighboring CFA countries. But, it seemed improbable that much of Nigeria's groundnuts production was smuggled out since, as the review put it, "the sheer volume involved would be so obvious as to be difficult to overlook".

1.20 Cotton Seed Crushing and Cotton Lint. While difficulties with electricity supply have been a problem, it is the inability to secure cotton seed or substitute raw materials suitable for crushing at acceptable prices which seems to have been the principal source of difficulty in recent years for Nigeria's nascent cotton seed crushing industry. 1/ Cotton seed supply has proved to be inadequate, not because of shortfalls in the cotton harvests, although these have fluctuated widely, but because of the large addition to demand for cotton seed by mills originally set up to crush groundnuts. It was in 1975-76 that groundnut crushing firms first began to buy cotton seed on a large scale as a substitute for groundnuts because of successive poor groundnut harvests (first because of the Sahelian drought and then because of rosette disease). But, since 1977 at least it would appear that price controls on groundnuts are at the root of the problem.

1.21 During the last few years, the strategy followed by a firm contacted by the mission has been to attempt to crush anything suitable which can be found at a reasonable price, whether locally or imported. Imported groundnuts have been cheaper than locally produced groundnuts at the going free market price. Thus efforts have been made by the firm we visited to import groundnuts under license. Similarly soya beans and cotton seed are imported from time to time for crushing. Efforts are also being made to develop sunflower seed as a local crop which would be more remunerative to the local farmer and fit better in his optimal cropping mix than cotton currently does. It has also proved possible to adapt to processing imported inputs to produce chicken feed for the booming local chicken-raising industries. (These imports are heavily subsidized by the Federal Government; the business although privately profitable is uneconomic from an economy-wide perspective.) It should be noted that a mill originally designed to crush one kind of oil seed can be switched back and forth between different kinds of oil seeds with some minor expense and loss of time (about two days in the case of a firm converted from cotton seed to groundnut crushing). However, switching to palm kernels is a costly operation and has not been considered.

1.22 Although there is a binding ceiling price on cotton seed oil, at least it apparently is not set so low, compared to groundnut oil price, as to inflict severe losses on processors. Another survival strategy that is followed by the crushing mills is to turn to the business of importing oil in bulk form, packaging and marketing it. 2/ There is apparently also some

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1/ One firm which started operation in 1975 was able to run at full capacity for only two years before inability to secure adequate supplies of cotton seed became a major problem, resulting in operation at well below full capacity and a constant search for substitute raw material input.

2/ Nigeria's increasing volume of vegetable oil imports primarily consists of groundnuts and soyabeans oil, according to the IRBD Nigeria Agricultural Sector Review, June 1979. It should be noted, incidentally, that in various issues of the Central Bank's Annual Report "Soya beans oil" and soya beans have been listed as agricultural export commodities. Thus we have apparently still another one-time export which is now currently imported. However, it should be noted that there are 11 other commodities listed and that soya beans and oil each have only a weight 0.08 percent in aggregate price index for major agricultural export commodities.

outright evasion by large firms of the ex-factory price ceiling, although to judge from their account this is, for some reason, done chiefly in connection with vegetable oil imported in bulk and repackaged, rather than with oil milled from locally procured groundnuts.

1.23 Because the capacity of the groundnut mills which have converted to cotton seed crushing is so enormous, the cotton seed obtained in the course of ginning locally produced cotton is far from enough to permit these mills and those originally designed to crush cotton seed to operate at rates approaching full capacity. 1/ The resulting prolonged period of negative cash flow must be adversely affecting the mills' ability to carry out proper maintenance and repairs on their machinery, and to retain qualified staff.

1.24 The inappropriately set ex-factory price ceiling on groundnut oil can thus be seen to have inflicted severe damage on both groundnut mills and cotton seed crushing mills, and it has evidently forced both categories of mills to make additional investments in extra equipment needed to enable them to crush oil seeds other than those originally designed to be crushed.

1.25 Available data on cotton production does not go beyond the 1976/77 season, an unusually good harvest year. Cotton lint production in Nigeria has clearly fluctuated during 1969-77 as can be seen from Table 1 of the Statistical Appendix. However, cotton production and farmers' interest in growing cotton are reported to have declined sharply in Northern Nigeria since 1977. A recent World Bank report attributes this to unfavorable producer incentives for cotton compared with food crops. 2/ Hybrid maize has recently been introduced and rapidly adopted in the Funtua area where cotton had traditionally

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1/ According to the IBRD Agricultural Sector Review (Vol. II, paper 2, p. 63), "The traditional reliability of marketed production [of groundnuts] encouraged considerable investment in processing and by 1974 theoretical crushing capacity exceeded 1.0 million tons" (presumably with capacity being defined in terms of annual throughput since total domestic production of groundnut oil and cake does not ever seem to have exceeded 328,000 tons per year). The sector review notes that more than 75 percent of this capacity is (or was at the time the report was being prepared) wholly dependent on groundnuts, that most crushing plants were idle, and that two companies had been forced into liquidation. Even if more than 75 percent of the industry's crushing capacity was wholly dependent on groundnuts, this leaves somewhat less than 25 percent which could process other types of oil seeds.

2/ IBRD, Accelerated Development in Subsaharan Africa, page 5.47. Specifically the report attributes the decline in cotton production during the period (1975-80) to the fact that: (1) its farmgate price was low relative to that of other crops and (2) cotton's marketing, unlike that of other crops, was not in the hands of private traders. (Cotton incidentally, was the only crop whose production declined during the project period.) Our mission's inquiries disclosed that the Cotton Board has recently improved its payment procedure--modifying or doing away with the LBA system and using cotton processing companies as buying agents--so that farmers now get paid in cash on delivery. This modification of the system, if it is in fact in effect, must have greatly improved producer incentives for cotton.

been a major cash crop. Marketing problems which had threatened to severely depress producer prices for maize in Funtua in 1979 have been successfully overcome by contacting buyers in Kaduna and other urban markets. 1/ Our mission's inquiries in Funtua indicated that local people are rapidly integrating maize into their diet, in effect substituting it for millet. Maize's popularity is explained in terms of the following factors: its cultivation is not labor-intensive, it has a high yield, it stores well in the area, and land preparation of maize takes little time compared to millet and sorghum.

1.26 The substitution of maize for millet in the Funtua area has had adverse effects on farmers' willingness to adhere to an early planting schedule for cotton. There is apparently a labor requirements conflict between the two crops. Farmers wait for the rains to mature the maize they have planted and only then plant cotton. Before the introduction of hybrid maize farmers would typically plant millet which has a short growing season (2 to 2-1/2 months). In a year of normal rainfall they would have the millet harvested by the end of June and then could plant cotton at about the optimal time for the cotton to grow well. Thus, although the Funtua project started out by raising cotton yields, in introducing hybrid maize subsequently it had the paradoxical effect of lowering rather than raising total cotton production.

1.27 Incentives for cotton production, however, currently appear to be inadequate to secure a trend rate of growth matching that of domestic demand for cotton-based products. The Cotton Board is subsidizing the producer price and incurring a loss of ₦109 per ton of cotton marketed (before allowing for depreciation, capital charges or stock financing). The percentage difference between the price actually paid to the producer 2/ and the export parity price was 33 percent--just about enough, in the view of the agricultural sector review 3/ to offset the likely degree of exchange rate overvaluation. 4/ Since fertilizer is highly subsidized (80 percent) to the extent that farmers do get fertilizer at the subsidized price (rather than having to pay black market prices for it), the net effective rate of protection for cotton growing must be positive and fairly high. However, it is apparently not high enough, given price incentives for other crops competing for the

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1/ IBRD, Agricultural Prices and Marketing in Nigeria's Green Revolution, p. 31.

2/ However, it should be kept in mind that under the LBA system (which now appears to have been substantially modified or eliminated) producers were generally not paid in cash on delivery so that the subsidy in practice was less than appeared.

3/ IBRD, Nigeria Agricultural Sector Review, June 1979, Volume 2, Paper 1, p. 13.

4/ At the same time the price of cotton lint to textile firms is said to be subsidized "to keep the raw material price to the [textile] mills low, the price of lint is set at the export price." IBRD, Nigeria Agricultural Sector Review, June 1979, Vol. 2, paper 1, p. 17.

farmer's time and effort, to keep cotton production growing fast enough on average to keep pace with the prospective demand for cotton lint by the textile industry and that for cotton seed oil and cake.

1.28 Palm Milling. As indicated earlier, total palm oil production has stagnated or slightly increased in recent years in spite of the very high level of effective protection given to the palm milling industry by the tight restriction of vegetable oil imports, the lack of price controls, and the subsidization of palm kernel prices at above export parity levels throughout most of the 1970s. In addition, industrial palm milling plants, in spite of their superior extraction rates compared to artisanal processing activity, have been unable to work at full capacity.

1.29 The high degree of effective protection (in excess of 100 percent) has apparently served only to keep domestic production from falling; a still higher rate of protection would be required to bring about a substantial increase in palm oil production, and a large export subsidy would be required to remove the current anti-export bias. High protection has not addressed the failure of the industrial mills to maintain their share of the market. Ideally, because of their superior actual extraction rates the industrial mills should be operating at full capacity with artisanal processing taking place only at the margin. But in fact the industrial mills are operating at well below full capacity because of inability to overcome supply side constraints on their output, such as lack of an adequate flow of imported spare parts and, more fundamentally, because of a general lack of the necessary managerial and technical expertise. Skilled employees may have been attracted away by more remunerative employment opportunities elsewhere.

1.30 The low level of operating efficiency and lack of knowledge of correct technical procedure is attributed to lack of accountability, low priority given to training, and failure to obtain the services of qualified international management. The lack of utilization of high calibre international management is due in part to lack of incentives or positive disincentives for foreign firms to offer their services in the Nigerian markets. A number of leading Far Eastern firms, which would have been natural candidates for participation in an anglophone environment, "have been deterred by the perceived costs and difficulties of doing business in Nigeria" 1/ as well as by the limitation on the repatriation of their earnings.

1.31 The lack of technical and managerial expertise mean that the available technology is not properly utilized. According to a recent study of costs of milling for different sizes of plant cited in the oil palm subsector review, actual operating costs per ton in one mill with a rated capacity of 20 metric tons per hour, were found to be about twice what they should be on a well run, modern mill of the same size. This was due mainly to "excess labor, low yield of oil and low throughput due to poor condition of the plant," rather than to differences in technology. 1/

1/ IBRD Oil Palm Subsector Review.

1.32 Technical inefficiency of this kind would go a long way toward negating the theoretical cost advantages over artisanal milling which industrial milling may possess due to its superior extraction rate and scale economies. We might ask, however, whether to point this out is to go far enough in analyzing the difficulties of the industrial palm milling sector. Why have the firms in this industry not been able to acquire or retain people with the necessary technological expertise? Pioneer Mills have, after all, been in operation for a long time. Perhaps even when operated with proper maintenance and working at full capacity, they are not capable of holding their own share in the palm oil market against artisanal processing operations.

1.33 It has been estimated elsewhere that the economic and financial viability of exploitation of existing resources in the oil palm subsector are highly sensitive to labor costs and to the level of the exchange rate. The DRC calculations of the oil palm subsector review suggest that the economic profitability of palm oil milling is questionable with a daily wage rate much in excess of ₦3.5 and an exchange rate much in excess of US$1.51 = ₦1. The wage rate in the oil palm subsector was estimated to be as high as ₦4-5 per day during the period in which the old monthly minimum wage of ₦100 prevailed. With the most recent rise in the monthly minimum wage to ₦125, the daily wage rate in the oil palm sector has presumably risen correspondingly. As noted elsewhere, at the official exchange rate the daily wage in the Nigerian oil palm subsector is quite high compared to that of other major producers, especially those in the Far East such as Malaysia and Indonesia.

1.34 Palm Kernel Crushing. Palm kernel crushing mills are operating at about 10 percent of capacity because of supply side difficulties. By 1980, three out of five palm kernel crushers had chosen to suspend operations temporarily, arguing that the prevailing fee assumed a rate of capacity utilization in excess of that which is actually feasible. The industry's real problem seems to lie in the supply side constraints (i.e., irregular supply of kernels or evacuation of produce, intermittent electricity supply, difficulties in obtaining imported hexane and spare parts, etc.) 1/ and in its inability to overcome them, rather than in the level of incentives, which might well be perfectly adequate if the industry was operating at full capacity.

1.35 If the difficulties with supply of electricity, spare parts, etc., could be overcome at reasonable cost by extra investment in generating plant and inventories, the additional output of palm kernel oil would be mostly exported because, unlike groundnut and cottonseed oil, it is not much in demand on the domestic market. There would be a corresponding decrease in exports of palm kernels. Nominal crushing capacity according to the Nigeria Agricultural

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1/ It should be noted also that all mills other than VON utilize solvent extraction (hexane) and that imported solvent bears 30 percent duty.

Sector Review is 380,000 tons. 1/ Presumably, this refers to palm kernel input with corresponding full capacity output of palm kernel oil and cake being only fractions of throughput. 2/ Even so, 380,000 tons is a very large amount, exceeding total statutory purchases of palm kernels in any year since 1966. It would appear that limits on the harvesting of palm fruit might make themselves felt long before industry output could approach nominal capacity. However, there is clearly considerable scope for improvement of performance.

1.36 Decaux, writing in 1979, attributed part of the problem to the toll crushing system. With this system both the Board and the mills lose money on crushing operations. The Board loses because the price it pays the producer (₦205 per ton) and the mills crushing fee (₦47 per ton) together leave an insufficient margin to cover the remaining costs. Still, this does not seem as bad as the losses taken on exporting kernels, but we have not allowed for the Board's costs of handling the palm kernel oil and cake. The mills lose because they are unable to achieve sufficient volume to break even. This leads to a vicious circle: mills cannot achieve high throughput because of inadequate supplies of electricity , spare parts and raw materials; but their negative cash flow situation does not permit them to undertake investment to overcome these difficulties.

1.37 However, the unwillingness or inability of the Palm Produce Board to place a sufficient volume of orders with the mills and to deliver kernels and evacuate produce on a regular basis, may be the basic problem. We suspect that firms, despite their poor financial state, are capable of making investments to relax some of their constraints, but will not do so if they cannot expect to get a sufficient volume of palm kernels to operate at near full capacity.

1.38 To sum up, a principal complaint of firms in the palm kernel crushing business has been that the toll crushing fee paid by the NPPB has been set too low, given their actual rates of capacity utilization, to make crushing activity profitable. The implication is that at some ideally attainable rate of capacity utilization the currently established toll fee might be high enough for operations to be profitable. By contrast, as we have shown earlier, in the case of the groundnut milling industry in 1977, raw materials and final product prices were not set so as to permit processors to operate profitably at nominal full capacity.

Raw Material Prospects

1.39 Although inappropriate pricing policy has been the principal source of difficulty for the groundnut and cotton seed crushing industries during the last few years, it should be added that there is an additional factor darkening the horizon for these industries. This is the fact that the future outlook for the crops which supply the raw materials on which the vegetable oil and cake industry is based is not too bright. Both groundnuts and cotton

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1/ Footnote, p. 68 (Paper 2, Appendix I).

2/ According to Decaux (1979, p. 34) one ton of palm kernels produces about 430 kilograms of palm kernel oil and 520 kilograms of cake.

are labor-intensive crops which may pay increasingly inadequate returns to farmers' time and effort, even at heavily subsidized producer prices, as alternative crop possibilities continue to evolve.

1.40 Groundnuts. Regarding incentives to groundnuts, calculations in the recent IBRD note on marketing policy and prices 1/ show groundnut production to receive only moderate effective protection at farmgate compared to a number of other crops: the net effective rate of protection calculated for groundnuts is 36 percent, compared to 127 percent for oil palm, 166 percent for rice, and 74 percent for maize. (Sorghum and millet also received relatively low net effective rates of protection: 24 percent and 41 percent, respectively). What is significant is that maize, a cash and food crop for farmers in the north and competing for land and farmers' time with groundnuts, receives a significantly higher net effective rate of protection than groundnuts.

1.41 Although projections of future groundnut production seem to be very sensitive to incentives policy, it is still useful to consider the projections of domestic demand and supply for groundnuts, presented in the Agricultural Sector Review (Report No. 2181-UNI), as indicative of what is likely to happen over the next ten to fifteen years in the absence of fundamental incentive policy changes. While domestic demand, due to increases in population and per capita income, is projected to grow at 3.82 percent per year between 1975 and 1990 to reach 175 percent of its 1975 level, total domestic production of groundnuts is actually projected to decline slightly, by 0.05 percent per year. By 1990, the demand-supply gap is estimated at 521,000 metric tons--about the same volume of groundnuts that Nigeria exported in 1965 (Table 2 of the Statistical Appendix)--to be filled by imports. While we have no figure for the projected 1990 level of domestic production for groundnut oil, domestic demand is projected to grow at the same rate as for that of groundnuts, and presumably growth of production of groundnut oil would be in line with that projected for groundnuts.

1.42 It could be argued that the domestic demand for groundnuts has been projected by incorporating derived demand for groundnuts to be milled for groundnut oil and cake to keep up with domestic demand and perhaps to export as well. To the extent the domestic groundnut milling industry's output does not keep pace with domestic demand, imports of groundnut oil (on a smaller scale) and other close vegetable oil substitutes will continue to expand to fill the gap.

1.43 Cotton. The future development of raw cotton and hence of cotton lint appears to be sensitive to changes in incentives and introduction of new crops and technologies modifying the representative farmer's optimal cropping

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1/ IBRD, "Agricultural Marketing and Prices in Nigeria's Green Revolution;" May 1981, page 35.

mix. 1/ Because none of this can be foreseen with any great degree of precision, projections would seem to be quite hazardous. However, we may take the Agricultural Sector Review's projection of future output in 1990 as hypothesizing a continuation of the current level of incentives. Based on a past growth rate of 0.84 percent p.a., production of cotton lint is expected to increase from 58,000 metric tons in 1976 to about 65,000 tons in 1990. This relatively low growth rate is seen as plausible in view of the less favorable conditions for cotton expansion including the difficulties of obtaining spraying equipment and the unreliability of the marketing process. 2/

1.44 Taking the growth of cotton seed oil and cake as approximately equal to that of cotton lint production, we see that it falls well short of the growth rate projected for the demand for cotton seed oil from 1976 to 1990. The Agricultural Sector Review estimates that future consumption of cotton seed oil will be approximately double the 1976 level of production of 20,000 tons. This implies an annual growth rate of about 5 percent.

1.45 Palm Oil. While the industrial palm milling establishments may be able to regain their financial health and achieve full capacity operation again by establishing improved access to international expertise, the expansion of total palm oil production hinges on problems of raw material supply--specifically on expansion of oil palm plantations and the extent to which existing plantations and groves of wild palm trees will continue to be exploited.

1.46 The oil palm subsector review suggests that any significant increase in efficiency and improvement in capacity utilization of palm milling establishments would simply result in a bidding up of the supply price of palm fruit to the mills. The gestation period of new high yield palm plantations is a long one (4 to 7 years) and may in part account for the relatively low economic rate of return on oil palm plantation investment which a recent IBRD study claims to have found. 3/ But the only way in which domestic production will be able to even keep up with projected increases in domestic demand for palm oil is through the establishment of plantations of high yielding oil palm trees. Better grove harvesting and higher extraction rates would also help.

1/ Numerous problems besetting the cotton marketing system and affecting its ability to provide producers with proper incentives, ranging from labor shortages which extend the harvesting period and thereby lower ginnery efficiency, to an unrealistic seed cotton grade structure, are noted in paper 2 of the Nigeria Agricultural Sector Review.

2/ IBRD, Nigeria Agricultural Sector Review, June 1979, Vol. II, paper 4, p. 139. Paper 2 (Appendix 1 page 4) of the same report notes the desirability of modifying the marketing system to allow the ginneries to be made responsible for all primary marketing and "within predetermined limits" to allow them freedom to market their output, and to make LBA status conditional on substantial agent participation in the considerable investment needed for bulk marketing.

3/ IBRD, Agricultural Prices and Marketing in Nigeria's Green Revolution.

1.47 According to one estimate, 1/ total palm oil production is projected to grow only at about 1.9 percent per annum from 1975 to 1990, while domestic demand is projected to grow at 3.4 percent per annum, leading to an eventual deficit to be filled by imports of 153,000 metric tons in 1990, or approximately the amount Nigeria was exporting as late as 1964. The prospects for altering the conditions underlying the validity of this forecast look slim; the outlook for a resumption of exports of palm oil in the foreseeable future is virtually non-existent.

1.48 Palm Kernel. Since there is not much of a domestic market for palm kernels or for industrially manufactured palm kernel oil, and since there is extensive unused palm kernel crushing capacity in place, the export prospects for palm kernel oil and cake would seem to be very favorable, if the problems of the industry could be solved.

1.49 The major difficulty might seem to lie in the area of incentives. The toll crushing fee is apparently too small, given the volume of production to make palm kernel oil a profitable operation. On the other hand, the volume of palm kernels being exported is very large. If volume of production is the problem, the Palm Produce Board could have more of its palm kernel holdings crushed for export in the form of palm oil and cake. An alternative would be to pay a higher crushing fee, but this would leave the mills operating at extremely low levels of capacity utilization.

1.50 The real difficulty in fact must be the supply-side difficulties, namely unreliable electricity supply, difficulties in obtaining imported spare parts and irregular supply of kernels. The irregularity in the supply of kernels suggests inadequate performance on the part of the Palm Produce Board. However, the difficulties of electricity supply and of spares and raw material imports are problems which firms in other industries have addressed successfully, and it would seem that this could also be done in the palm kernel crushing industry as well. If the industry, at the cost of some extra capital expenditure, could be brought up to full capacity operation, this would mean a ten-fold increase in the current level of palm kernel exports and a corresponding increase in domestic production of palm kernel cake (which would probably go to the domestic market). This would be at the expense, obviously, of a reduction in exports of palm kernels. The question is whether the investment in relaxing the constraints on palm kernel oil production would pay a sufficiently high return to be worthwhile.

1/ IBRD, Nigeria - Agricultural Sector Review, Paper 4, Report No. 2181-UNI, 1979.

II. TEXTILES

Illegal Trade and Price Distortions

2.01 The evidence on price distortions, incentives to domestic producers, direction and volume of illegal (unrecorded) trade, 1/ and the extent to which domestic production satisfies domestic demand for the various categories of textiles, is mixed. Estimates of price distortions for grey baft (unbleached cotton cloth) and finished textiles fabrics seem very low relative to the premium placed by the black market on foreign exchange, considering current reports of massive illegal imports of textiles in virtually all categories.

2.02 Illegal Trade. Illegal imports of textiles were already substantial in 1977 and 1978 (ranging between 15 and 20 percent of total apparent consumption of textiles, measured in physical terms) 2/ and seem to have grown since then, to judge from reports of increasing distress in the textile industry. But since price distortions, measured at the official exchange rate, are reported to be substantially less than the black market foreign exchange premium, one would be led to expect illegal exports rather than illegal imports of textiles. The possible reasons for this apparent discrepancy are discussed below. The mission's inquiries disclosed some evidence that illegal trade in textiles takes place in both directions, but illegal imports are thought to be very large relative to both total demand and to illegal exports. In certain categories, especially that of African prints, the market is said to be flooded with illegal imports. The illegal imports come from other African countries (Ivory Coast, Senegal and Ghana) as well as from Europe (Netherlands, Great Britain, and East and West Germany) and Japan. In addition, the mission encountered one instance of imports of shirting from the People's Republic of China, said to be of good quality, underselling Nigerian-made shirting in the vicinity of the local textile mill. Indeed there are reports of West African national markets up and down the coast being "invaded" by illegal imports of textile goods from Far Eastern countries since 1978 or so. Nigeria is clearly not alone in this regard. Other countries whose national markets have been affected include some which are net exporters of textiles if recorded transactions only are taken into account.

1/ By illegal exports we mean exports which take place without export license and/or whose foreign exchange proceeds are not converted at the official exchange rate. Foreign exchange proceeds may either be converted into Naira at the black market rate or may be used to purchase commodities for import into Nigeria. The imported commodities in question conceivably could be declared at customs but this would raise the question of how the foreign exchange used to purchase them was obtained.

2/ Textilconsult S.A., Survey of the Nigerian Textiles Market, June 1979. According to this report, illegal imports were substantially greater than 10 percent of total domestic demand in the case of African prints, brocades and headties, embroideries and laces and towels. They were estimated to run between 0 and 10 percent of total domestic demand in the case of shirtings and sheetings.

2.03 Illegal imports of textiles are reported to have increased since 1976, when the import ban on all textiles was imposed. They mostly consist of the more expensive and better quality fabrics (prints, wax and African, laces and embroideries, brocades and headties) and come in both via neighboring countries (Benin, Niger, Cameroon and Chad) which apparently have low tariffs on textiles, and through Nigerian ports. However, it would appear from our own in-field inquiries that illegal imports did not reach a large enough volume to depress prices of domestically produced textiles significantly until some time after 1976. A textile company visited by the mission reported that as recently as two years ago profitability was high and payback periods on investment in additional capacity were short, in contrast to the depressed situation of early 1981.

2.04 Repressed Demand. The textile industry seems close to supplying domestic demand if a simple comparison is made between domestic production and imports (legal and illegal). However, the Textilconsult report claims that a large part of the demand for textiles is repressed at the prevailing price level. It calculates ex-ante gaps between demand and supply from all sources (domestic production, legal and illegal imports) for each of the various categories of textiles. Demand for textiles of a particular category is estimated on the basis of a summation of estimate of the "normal" quantity demanded yearly of the product per person in relevant population groups times the estimated size of the population groups in question. The gap between quantity demanded at the CIF price (at the official exchange rate plus port clearing and internal transportation charges) and the quantity supplied domestically (with legal imports banned) is presumably closed by a combination of a rise in price and illegal imports. The implied price elasticities of demand derived by combining Robertson's estimates of price distortions with estimates of "repressed demand" as a percentage of total supply are very high in the case of baft (4 to 20) and are on the high side for finished textile fabrics (0.56 to 2.3).

2.05 If the exchange rate were maintained at its current overvalued level and the ban on textile imports were lifted, presumably the internal market clearing prices of textiles would fall, illegal imports would fall off, and legal imports would expand to fill the original ex-ante gap between quantity demanded and quantity supplied. If the currency were devalued, however, the size of the ex-ante gap would shrink--there would be less of a gap for imports to fill with controls lifted in this case.

2.06 Price Distortions. Price distortions in 1977 were estimated by Bertrand and Robertson to range between 10-30 percent for grey baft and 14-40 percent for finished cotton textile fabrics (mostly African prints and shirting--bleached or dyed cotton fabrics). In Robertson's recent update (1981), the price distortions, in the light of subsequently accumulated evidence on quality differences, were estimated at about 40 percent for grey baft and 70 percent for fabrics. These price distortion estimates, even the more recent one which have attempted to allow for quality differences, are all less than the black market's premium on foreign exchange, which seems to have been around 80 percent on average. There are two possible explanations. First, it is possible that even Robertson's revised estimates of price distortions

are still too low to take proper account of the differences in quality between Nigerian-produced and foreign-produced textiles within the same category. Second, it is possible that the illegal imports consist mostly of high quality product variants which local firms do not produce and which are not perfectly substitutable for locally produced varieties. (In this case the question still arises as to how easily consumers substitute low quality local production with higher quality imports.) It seems clear that the influx of illegal imports has adversely affected the ability of local producers to increase their prices to keep pace with the general price level. Indeed, the textile industry may be a prime example of an industry in which money wages (and other costs) have risen relative to the price of the final production, squeezing profits.

2.07 Illegal imports in every category of textiles have been of higher quality than the Nigerian-produced articles of the same general description, and have commanded correspondingly higher prices from the ultimate consumer. Because Nigerian textile firms (with the exception of one company) do not produce higher quality prints, the demand for these is met by illegal imports. Local producers do not care to invest in capacity with which to meet foreign competition for higher quality prints, presumably because of low quality of local cotton lint and the belief that the ban on imports will soon be lifted.

2.08 The evidence from the mission's interviews on the competitiveness of the textile industry with foreign suppliers is mixed. One of two managers interviewed indicated that firms like his own, producing shirting and grey baft, would have severe difficulty just in holding on to the domestic market, in face of the recent (within the last two years) invasion of the Nigerian market by smuggled textiles of comparable or superior quality from the People's Republic of China, and indicated that Chinese shirting was purchased in the local market for less than the price charged for his own firm's product (55 kobo per meter vs. 67 kobo per meter). 1/ Moreover, his own inquiries regarding other African countries as export markets for textiles, which had taken him to the Ivory Coast, disclosed that producers in some other African countries are making plans to expand their capacity beyond the needs for their own national markets with a view to exporting to Nigeria within the framework of ECOWAS.

2.09 The glutted state of the Nigerian market, due to the massive influx of illegally imported textiles of good quality, has prevented Nigerian textile mills from raising their prices by enough to cover substantial cost increases. Maintaining prices constant in nominal terms in the face of rising costs of

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1/ It should be noted that some of the illegally imported textiles may have conceivably been made available by foreign sellers at prices below those ruling on their own domestic markets as part of a price discriminating strategy to deal with temporary or chronic situations of oversupply. This practice is what is usually referred to as dumping.

labor and materials has led to a profit squeeze of serious dimensions. A number of large firms have had to shut down recently, among them Nortex and Norspin of Kaduna and Teijin of Lagos, which in 1978 accounted for more than 18 million meters of cloth out of 550 million produced domestically.

2.10 Firms which have not gone out of business may still have to cope with severe cash flow difficulties which adversely affect their ability to replace spare parts and maintain adequate inventories to keep their machines running. One firm visited by the mission had lost 25 percent of capacity because of financial difficulties in replacing critical spare parts. Inventories of critical spare parts which ideally should have been at a level of 3 month's usage were at one month's usage. Lack of preventive maintenance is a serious problem and is attributable more to lack of adequately trained personnel than to shortage of spare parts. These problems are compounded by the financial difficulties facing many textile firms.

2.11 Evidence as to whether government-imposed price controls are responsible for the textile industry's difficulties is mixed. There are no reports of price controls on finished fabrics such as African prints in the studies of industrial incentives by Bertrand and Robertson and our interviews also confirm this. However, the ex-mill price of grey baft, inclusive of excise tax (5 to 10 percent ad valorem), was subject to a ceiling of ₦5.90 per 10-yard piece in 1978. Shirtings, used mainly in the North for clothing and bed sheets, were also price-controlled at ₦6.10 per piece inclusive of excise duties. However, it appears that these price ceilings have not been binding, since average ex-factory prices have remained well below these levels. By 1981, the picture may have changed. In May 1981, the ex-mill price of shirting at a large textile mill in the North was ₦6.7 per 10-yard piece (this was quoted as the price actually obtained although it may be the ceiling, still at its old level), while good quality shirting from the People's Republic of China was selling in the vicinity of ₦5.50 a piece so it would appear that the Northern mill could hardly be selling shirting on a sustained basis at its price level. A large integrated firm in Lagos did not, on the one hand, have to compete directly with the illegal imports of their principal product--African prints--because of the difference in quality (the quality of the imported variety being noticeably higher and correspondingly higher priced), but on the other hand, the company could not raise its prices in line with its increasing costs without losing sales to imports by losing its price advantage against them.

Labor Cost

2.12 The textile industry is a highly labor intensive one. Wage rates in Africa are in general considerably higher than in the Far East, 1/ and

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1/ A recent IBRD report cites a study appearing in an ILO publication comparing wages in the textile sector of 12 African countries with wages in textile manufacturing in the Far East, which showed costs of labor in Africa to be much higher than in the Far Eastern countries. In another African country, labor costs in the garment industry have been found in another study to be about double those in one of the Far Eastern countries.

costs of labor in textile manufacturing in Nigeria in 1978 were well above levels in some other African countries. The fact that Nigerian labor costs in manufacturing in general and in the textile sector in particular were well above the average for Africa in 1978 and have risen (in real terms) considerably since then suggests that Nigeria cannot hope to have great success in initiating exports of labor-intensive commodities, including textiles. Recent experience would suggest that manufacturers of labor-intensive commodities will have difficulty even to increase their share of the domestic market against foreign competition, unless restrictions on imports are fairly severe and strictly enforced, and/or the efficiency with which labor and other resources are used is greatly increased.

2.13 The high cost of labor in the Nigerian textile industry is not compensated by higher labor productivity, rather productivity tends to be quite low. The low productivity of labor can be explained to a large degree in terms of widespread failure in the industry to utilize available technology effectively and to factors producing excessive downtime, which are subject to control, to greater or lesser degree, by management. (The result is not only reflected in lower labor productivity but also a reduction in total factor productivity). Earlier reports (e.g., Decaux, 1979) note a number of factors contributing to low labor productivity in the textile industry, namely: use of obsolete equipment 1/ to process cotton fiber before spinning; low spindle speed; and excessive downtime. The latter could be viewed as being due to a combination of the following factors: inadequate preventive maintenance, insufficient investment in training, failure to retain services of skilled workers (turnover rates seem to have been generally quite high), 2/ and failure to use best practical technology taking full advantage of already installed equipment. 3/

2.14 The failure to carry out adequate preventive maintenance could be explained in terms of non-availability of key spare parts due to disruptions in supply caused by the sudden application of quantitative controls (e.g., import licensing, Form M, etc.) and the subsequent introduction of comprehensive preshipment surveillance beginning in April 1979 to control over-invoicing of imports. Firms should be able to adjust to such developments, however,

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1/ However, what is obsolete in a developed country's textile industry is not necessarily so in a developing country. To replace such equipment with more modern equipment may well be a good investment; but without detailed analysis we cannot be sure of this.

2/ Excessive labor turnover, which was a problem for a number of textile producers in the late 1970s apparently continues to be a problem for some firms but not for others. In a Lagos firm, turnover of trained weavers and spinners was substantial, despite payment of a skill premium, while at another firm in Kaduna, labor turnover was not seen to be a serious problem.

3/ The example cited was the failure to use "slub catchers" to ensure uniform thickness in yarn emerging from the spinning process; failure to do this means a problem with excessive breaks in the weaving process.

with only transitory reductions in preventive maintenance and increases in downtime, by building up their inventories of spare parts. The mission's inquiries in May 1981 indicate that firms in textiles and other industries have made progress to varying degrees in carrying out this additional investment in extra inventories and equipment (firms with severe cash flow problems frequently find it difficult to make the necessary investments).

Infrastructure and Raw Materials Problems

2.15 Infrastructural Deficiencies. Unreliable public supply of electricity from 1977 onward was causing many firms, including those in the textile industry, to operate far below capacity. Barring a dramatic turnaround in NEPA's ability to supply power on a reliable basis, firms have had the choice of having either to continue to operate below capacity, with resulting adverse consequences for labor productivity and profitability, or to adjust by investing in standby generating equipment. Previously it was thought that the cost of installing generators in textile establishments might be prohibitively high, especially in spinning. However, we now know that textile firms in recent years have in fact undertaken investments in generating equipment, and the cost of such investments appears to be moderate in comparison with the prospective savings to be realized by ensuring fuller utilization of capacity. The cost of investment in generating equipment also seems to be fairly small compared to a firm's total investment in plant and equipment. One of the textile firms contacted by the mission had installed standby generator capacity; the other that was visited was conducting a financial analysis to determine whether such an investment would be warranted.

2.16 To the extent low labor productivity in the late 1970s was due to excessive downtime, we would expect to see considerable improvement in labor productivity in the textile industry during the period 1978-1981, to the extent that investments in standby generating equipment and inventories buildup are made.

2.17 Raw Materials Supply Problems. It would seem that to the extent the textile industry is going to continue to rely on Nigerian-grown cotton as its primary source of raw materials (this is becoming an increasingly questionable proposition) it has to come to terms with the fact that the lint produced from Nigerian cotton is mostly low-grade and that fiber strength in the lower grades of lint has been declining, possibly due to potash deficiency. The Agricultural Sector Review recommended research into the causes of fiber weakness and a widening of lint price differential to give spinners incentive to experiment with lower grades of lint. It appears from the report that only "about 15 percent of output is low count baft and shirting, the bulk of demand is therefore geared to higher grade lint, and lack of flexibility in absorbing available mix creates inventory problems for the Nigerian Cotton Board." 1/

1/ IBRD, Nigeria Agricultural Sector Review, June 1979, paper 2, p. 58.

Possibly a shift of the industry's output toward lower quality textiles might increase the demand for low quality lint of the kind which is currently being produced in excess of industry demand. However, a shift of output mix toward higher quality fabrics might aggravate the imbalance between quality of lint and industry needs. This is a question which may require further investigation.

2.18 A current problem which should be noted is irregularity of deliveries of cotton fiber to textile firms, apparently because the Cotton Board insists on arranging transport instead of letting the millers make the arrangements themselves, and pays unduly low rates to truckers. It should be noted also that according to a recent IBRD study, the Cotton Board's monopsony of raw cotton has apparently had an adverse effect on growers' incentives, accounting in large part for the fall in cotton production in the Funtua area in recent years. There is the further consideration noted already in our discussion of the cottonseed crushing industry; growing cotton is a labor-intensive activity which seems to have become less attractive lately in relation to alternative uses of farmers' time. This is a trend which may be expected to continue.

Export Prospects

2.19 Nigeria's textile industry is possibly capable of meeting national demand for low-quality varieties of shirting and finished fabrics but not that for higher quality varieties. As per capita income in Nigeria grows, the structure of internal demand will shift toward higher quality of textiles. To keep its share of the internal market, the Nigerian textile industry will have to develop a capability to produce higher quality varieties on a competitive basis. The ban on all textiles without regard to quality seems to be designed to create incentive for domestic firms to expand their capacity to produce, for sale on the domestic market, high quality textiles. However, based on the mission's inquiries, the import ban is not having this effect. Since the desired products are not available from domestic producers, demand for them is to some extent choked off by a rise in their relative price, in part diverted to lower grade textiles of the same categories which the home industry is capable of producing, and in part supplied by illegal imports of textiles of the requisite grade.

2.20 The Nigerian textile industry seems to be currently specialized in producing lower quality textiles, and there is so far little evidence that producers are interested in diversifying into higher quality textiles because of the uncertainty of whether the import ban would remain in force or not. Thus, a strategy of expanding production of, and exporting, lower quality textiles, while continuing to import higher quality textiles--basically a strategy of horizontal specialization for the industry--might seem to be the most promising. Lifting the across-the-board ban on textile imports might serve to promote developments along these lines.

2.21 In order to be able to export low-quality textiles, the industry would have to overcome the substantial anti-export bias which positive nominal protection has created even for its low-quality products. An effectively operating import duty rebate scheme would go only part of the way to overcoming the system's anti-export bias. For example, if we assume, as seems

reasonable, that the lower quality varieties of finished textiles produced by the Nigerian textile industry receive nominal protection of 40 percent, the impact of a full rebate can be readily calculated for firms with and without approved user status. From one interview the mission obtained the following estimates of applicable tariff rates on key inputs with and without approved user status:

	Without Approved User Status	With Approved User Status
Yarn	50%	10%*
Machinery	30-60%	5%

* Said to be likely to go up soon to 30 percent. Yarn imports will be "totally" banned from 1983 onward.

Only the duty on yarn is relevant for our purposes. The firm in question is a large fully integrated one which produces printed fabrics starting from yarn (mostly imported) and cotton lint (mostly of local origin, though the firm purchases imported cotton when the Cotton Board cannot make sufficient Nigerian-produced cotton available).

2.22 In his effort to classify firms by the degree to which the production process was integrated, Robertson found that some firms used the three principal inputs, cotton lint, yarn, and grey cloth in roughly equal proportions. For firms using mostly yarn, yarn accounted for between 35 percent and 80 percent of raw material costs and for those using mostly cotton lint, cotton lint accounted for between 84 percent and 94 percent of total raw material costs. Taking raw material costs as 40 percent of total cost of production and ignoring the tariff, if any, on cotton lint and other inputs, we calculate the extent to which an import duty rebate would close the gap between value added in production for the domestic market and that in production for the export market. (With a nominal tariff rate of 45 percent, 42 percent of the gap can be closed).

2.23 Decaux's view is that the Nigerian textile industry's ability to export is quite limited. The large domestic market means that large textile mills are not forced to export as they are in the Ivory Coast. Also, Nigeria's product mix in textiles is not suitable for the export trade and even in five years' time this cannot be expected to change much. Because of the low quality and lack of variety of its products, the industry's export prospects in the near future seem limited to neighboring African countries. Decaux suggests that Nigeria could explore the possibility of taking advantage of the Lomé Convention which has effectively opened EEC markets to Nigerian textile products. Nigeria could do this by installing modern textile mills

especially geared for export to EEC countries. This would amount to following the Ivorian example. Especially since the Ivorian strategy seems to be encountering some difficulties, exploration of these possibilities should include an in-depth examination of the Ivorian experience.

III. CEMENT

3.01 Unlike some other industries reviewed in this report, cement production has not received protection either in the form of a positive tariff or in the form of quantitative restrictions on imports. Thus anti-export bias, in the sense of a divergence between domestic producer's price and the import c.i.f. price, does not exist. However, modest duties on traded material inputs and substantial exchange rate overvaluation have combined to impose a substantial degree of negative net effective protection on this industry (-31 percent if the degree of overvaluation of the Naira is assumed to be 35 percent). The effect of this disprotection has been to discourage domestic production of cement and encourage its domestic consumption causing net imports of cement to be higher than they would be in a "no interventions" situation and stifling altogether the emergence of recorded exports of cement from those Nigerian firms with plants so located as to include parts of neighboring countries in their natural market area.

3.02 Such exports to neighboring countries which lie in the natural market area of Nigerian plants situated near the border as might emerge would no doubt be modest in volume. It is not claimed that the cement industry in a "no interventions" situation would expand sufficiently as to become a net exporter. 1/ The point is that in a "no interventions" situation some cement firms might find it profitable to market a part of their production in neighboring countries, perhaps enough so as to make production on a larger scale advantageous for them.

3.03 Cement is a standardized commodity; thus there is no scope for horizontal specialization within the industry as there is in the case of textiles. Domestic demand for cement vastly exceeds domestic production. This has been the case since the early 1970s and will continue at least through 1985, according to a recent World Bank study. As Table 5 shows, domestic production as a percentage of domestic demand, which had recovered to 72 percent in 1973, has since fallen steadily, reaching 27 percent in 1978. The situation is forecast to improve in the early 1980s but not to the point where domestic demand is anywhere near being completely satisfied by domestic cement producers.

1/ As matters now stand, a plant is being constructed in Benin which will export part of its production to Nigeria.

3.04 In view of the poor performance of the cement industry in recent years, the fact that the industry receives disprotection given the current degree of exchange rate overvaluation, and given the additional sector-specific difficulties described below, these projections look realistic. Certainly there is no reason to expect a quick turnaround of the industry given the continuing deteriorating operating capacity which went from 76 to 53 percent of technical capacity between 1978 and 1980. Moreover, based on a plausible extrapolation of trends which had become evident, output is forecast to grow less rapidly than capacity would come onstream.

3.05 The disastrous state of affairs in the cement industry -- some plants virtually producing nothing and most plants operating at well below full capacity -- was, according to Bertrand and Robertson, due principally to shortcomings "in plant design, management capability and infrastructure support rather than the nature of price incentives to the industry..." However, the fact remains that adverse price incentives may have had some effect on industry profitability, making it more difficult than otherwise for the industry to cope with those problems. 1/

3.06 The failure in the mid-1970s of cement plants under construction to come onstream as planned, coupled with the great demand for cement for construction at that time, led to a shift in government policy in favor of the development of bulk handling facilities to facilitate large-scale importation of cement without tying up the ports as occurred in 1975. The Government's efforts to assure an elastic supply of cement from abroad at a low price may not always have the intended effect, however. To judge from the black market in cement, it would appear that users of cement are not always able to get the quantity they want at the official ceiling price.

3.07 In the case of cement, what is needed above all are incentives to stimulate the growth of domestic production through expansion and fuller utilization of existing capacity rather than incentives to export. Such measures might include the granting of a degree of protection which would offset the adverse effect of the current degree of exchange rate overvaluation on production incentives in the industry. It should be kept in mind, however, that while the cement industry is certainly disadvantaged by a negative net rate of effective protection, the extent to which the industry could respond to an improvement in price incentives is doubtful (price incentives alone may not suffice). In any event, the export potential of the cement industry appears limited for years to come given the extent to which the growth of domestic production has fallen behind domestic demand growth, and the long gestation periods of investment in the industry.

1/ One company's annual report for 1979 indicates that the rate of return on investment is fairly low--around 6 percent--and this company's performance has been among the best in the industry.

IV. STEEL IN SEMI-FINISHED AND FINISHED FORM

4.01 At present there are two integrated steel works and three rolling mills under construction: the integrated steel works at Ajaokuta in Kwara State, which will use conventional blast furnace technology; the integrated, gas-fired, direct reduction process steel works at Aladja near Warri, which was scheduled to begin production late 1981; and three steel rolling mills at Oshogbo, Jos, and Katsina, which have been planned to utilize billets from Aladja. 1/

4.02 The Ajaokuta blast furnace plant is currently estimated to cost between 6 and 7 billion Naira. Various problems relating to selection of the site delayed implementation of construction. It is now scheduled to be finished in 1986, rather than 1983, its original completion date. Output is intended entirely for the domestic market, which is just as well, since its conventional blast furnace technology and associated energy costs, and its location in Kwara State do not give it a cost advantage for purposes of exporting. Because of this, we will not give further attention to Ajaokuta in our assessment of the export prospects of Nigeria's nascent steel industry. For export purposes, it is the Aladja plant which must claim our attention.

4.03 Construction work on the Aladja steel plant started in 1979 and was estimated at that time to require ₦820 million total investment. Costs of infrastructure (roads, river dredging, housing and a training center) accounted for approximately one-third of the project's cost. The output of the project was intended entirely for the domestic market. The plant has been planned to produce about one million tons of steel per year 1/--of which 330,000 tons would be in the form of long products and 660,000 tons would go in the form of semi-finished products to the three rolling mills. The plant would operate using iron ore from the north of Nigeria; power could come from the Sapele power plant which would use natural gas. The plant is well located for export purposes since it is on the coast.

4.04 Since the Aladja plant is coming on line earlier by about one year than the rolling mills, temporary capacity to produce billets in excess of effective domestic market demand will exist. The question is how best to use it. One possibility would be to export semi-finished steel in order to break

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1/ It appears from a recent report (see West Africa, May 11, 1981) that the rolling mill at Katsina may be redesigned to operate on metal scrap so it will not have to depend on billets from the Aladja works. Transport difficulties have apparently motivated the decision. A feasibility study has been commissioned to explore this possibility. The internal demand for billets is likely to grow, since there seem to be plans for additional rolling mills. Plans to build a ₦32 million steel rolling mill in Cross River State were reported (see West Africa, June 8, 1981). Four additional steel plants would be constructed in various parts of the country. They would be producing finished mill products: flat steel and foundry products, aluminium smelter and alloy steel.

into the world market. Because of Aladja's low energy costs, it would seem that its semi-finished steel output could be competitively priced for sale to the export market. An alternative to exporting would be for the rolling mills to stockpile the billets so they would have a sizable inventory on hand when they start up production. In view of the special logistical problems of steel industry and the general need in Nigerian industry for large stockpiles of raw materials to cope with potential supply disruptions, this inventory building strategy has its attractions.

4.05 A report, still in preliminary form, by an outside consulting firm forecasts that by 1985 world demand for steel could exceed world supply and that cheap energy will be crucial in determining competitiveness of supply sources with energy accounting for as much as 30 percent of steel-making costs in developed countries. Nigeria's ability to produce steel using associated gas that would otherwise be flared off 1/ will probably give it a major cost advantage. Although Nigeria could consume all of the steel it will be producing up to 1985, the report suggested earmarking at least 10 percent of its capacity to penetrate foreign markets in the period between now and 1985, as an experiment to see if it is competitive in world markets. If this turned out to be the case, Nigeria could plan to increase its steel-making capacity to expand its exports of steel in quantity.

4.06 Basically, two export possibilities can be envisaged. First, finished mill products could be exported to other ECOWAS (Economic Community of West African States) countries starting first mainly with longs for infrastructure purposes, then moving into flats and eventually billets as these countries establish (as they almost inevitably will) their own finishing mills. Second, semi-finished steel and direct reduction iron could be sold on the world market. It should be noted that exporting semi-finished steel to mills currently exporting finished products to Nigeria, making their willingness to deal on a "conversions basis" a condition for accepting their finished products, is not desirable.

4.07 The emphasis on specializing in and exporting steel in semi-finished form (billets) is justifiable partly on tactical grounds and partly on comparative advantage grounds. Trade barriers in prospective markets in developed countries are likely to be lower for semi-finished than for finished products, and the cost advantage conferred by the availability of cheap energy in the form of natural gas is more important at the stage of producing semi-finished steel than at the rolling stage. Thus it is likely that investment in additional direct-reduction-process, gas-fired, steel-making capacity would have a higher economic rate of return than investment in additional steel rolling facilities.

1/ One gathers that the gas to be used in the Aladja steelworks gas-fired reduction process is associated rather than non-associated gas. The distinction would appear to be an important one; since non-associated gas can be kept in the ground for future use, its opportunity cost is not zero.

4.08 This has important implications for Nigeria's overall steel sector expansion program. It suggests that export sales of steel in semi-finished form, even after taking transport costs into consideration, might be a cheaper way of obtaining finished mill products than rolling the steel in Nigeria. This is a question which obviously bears further study. Nigeria has planned a number of rolling mills all over the country, the idea being evidently to produce finished products in the areas in which they will be marketed. Given that so much steel in finished form is going to be required each year in various distant areas of the country, it becomes a question as to whether it is more economical to supply rolling mills located in these areas with semi-finished steel from Ajaokuta or Aladja, or to ship finished mill products either from rolling facilities located near one of these two complexes, or from abroad via the world market route.

4.09 The apparent cost advantage at the billets producing stage makes a "vertical specialization" strategy in production of semi-finished steel for export look attractive. Nigeria's cost advantage comes mainly from its use of abundant natural gas which can be counted on for at least 20 years, thus reducing the possibility of unscheduled and costly shutdown; and the gains in technical efficiency from being able to use the direct-reduction, gas-fired process. With this process, output can be 20 percent higher than with a conventional process using the same material input levels. There are, however, two other factors of key importance in determining Nigeria's potential competitiveness on the world steel market: costs of labor and logistics. Labor costs are a significant cost element in producing steel (as much as 30 percent) and Nigeria seems to have an advantage on the labor costs compared to developed countries such as Japan and the United States. As long as other countries which combine low wages with abundant supplies of natural gas and adequate access to iron ore do not emerge as potential competitors, Nigeria's position would look good with respect to labor costs, although Nigerian labor is not low-cost compared with that of a number of Far Eastern countries and even with some other African countries. The logistics of moving iron ore into the plant area and steel out on a continuing basis can pose difficulties in an area with generally underdeveloped infrastructure.

V. MOTOR VEHICLE ASSEMBLY

5.01 Motor vehicle assembly in Nigeria is a very highly protected industry. Nominal rates of protection on production of types of vehicles (defined by engine size) ranged from 25 percent to 200 percent in 1977, and 50 percent to 500 percent in 1979. The net effective rate of protection (assuming 35 percent overvaluation of the Naira) ranged from 44 percent to 262 percent in 1977 and 306 percent to 1,119 percent in 1979. These high rates of protection are indicative of a highly inefficient activity. Bertrand and Robertson list motor vehicle assembly as an industry that would definitely not be viable under free trade. Judging from the large share of wages in value added and from reports of losses on assembly operations, there are unlikely excess profits in the industry.

Economies of Scale

5.02 It must be kept in mind that motor vehicle manufacture is an industry in which economies of scale are very important. According to an estimate by Silberston (1972) 1/ the elasticity of total cost with respect to scale of output in this type of industry is 0.82 meaning that for every increase in scale of output of 1 percent unit cost would fall by 0.18 percent. Little, Scitovsky and Scott (1970; 1975) 2/ in their review of eight motor vehicle plants in various developing countries in the 1960s found that heavy commercial vehicles assembly had economies of scale which were very slight compared to those for cars, and for this very reason apparently always showed good social returns in contrast to car assembly which often did not. They found that in car production the scale of production was very important and that the higher the domestic value added ratio the more important scale of production is in lowering costs of production per unit. In other words, mere assembly of imported components is unlikely to exhibit very strong economies of scale. However, to be able to manufacture a significant share of components economically requires highly efficient local supplying industries. Little, Scitovsky and Scott suggest tentatively that the existence of a developed local engineering industry is required.

5.03 Backward integration is economical only for very large volumes of production of a single model. Little, Scitovsky and Scott suggest that a satisfactory rate of return on investment in the manufacture of cars is likely to require output of a single model of around 20,000 units a year, and that domestic content must not exceed 50 percent. To achieve a much higher domestic content, economically, requires output of a single model to exceed 50,000 units a year. Baranson (1969) finds production costs per unit levelling off "at about 120,000 units per year on assembly operations, 240,000 for engines and other power train parts and 600,000 units for body stampings." Balassa (1971) citing Baranson's findings on the inverse relationship between the degree of backward integration of production and excess cost of automobile production in Brazil, stresses the importance of limiting the degree of backward integration and of achieving economies of scale through "vertical specialization" in the automotive industry.

5.04 Nigeria, more than any other country in Sub-Saharan Africa, with the possible exception of the Republic of South Africa, appears to be developing a motor vehicle industry with production of individual models on a scale large enough to realize significant economies of scale. Two of Nigeria's nine motor vehicles assembly enterprises have been designed with capacities large enough to realize significant economies of scale. Peugeot Nigeria has a capacity of 52,000 units a year and appears to be limiting itself to one basic model of passenger vehicle; while Volkswagen-Nigeria has a capacity of 27,000 units a year. A third major company, Leyland-Nigeria, has a capacity of 12,000 units a year, divided among various types of heavy commercial vehicles and landrovers, in the assembly of which we might expect economies of large scale production to matter more than for heavy commercial vehicles.

1/ Silberston, Economic Journal, Supplement, 1972.

2/ Little, Scitovsky and Scott, Industry and Trade in Some Developing Countries: A Comparative Study, OECD Development Center, Oxford University Press, 1970.

Cost Structure and Pricing Policy

5.05 In 1978, Nigeria's major vehicle manufacturing enterprises were far from reaching full capacity production: Recent information showed Peugeot Nigeria producing 35,000 units a year and Volkswagen-Nigeria producing only 19,645. 1/ Since capacity was not being reached (because of a variety of supply side difficulties--unreliable electricity supply, etc.) when effective rate of protection estimates were made, unit costs at that time were probably well above their eventual full capacity levels. The mission's inquiries indicate that car assembly firms vary widely with respect to their cost structure. One company's cost structure estimates showed car kits (inclusive of duty insurance and port charges) accounting for 58 percent of ex-factory price and 70 percent of total unit ex-factory cost. Labor cost as a share of total unit cost was not given separately but "assembly/manufacturing cost" was listed as 20 percent of ex-factory price or 24 percent of total unit ex-factory cost. Another company's cost structure is as follows: labor, 45 to 55 percent; power, 3 percent; and imported car kits and spares accounted for most of the remaining 42 to 52 percent. Information on cost structure for the third company contacted was not available even in the form of rough estimates.

5.06 All three companies were running their assembly operations at a loss. Losses of two of these companies were attributed in part to low ceilings on ex-factory or dealers' recommended prices imposed by the Government. Ceiling prices were raised by 13 percent for one company in early 1981 for the first time since 1978, but a company official estimated that between 1978 and 1981 costs went up by 30-40 percent and that the company costs would be increased significantly by the prospective minimum wage increase. An official of another company spoke of having been able to maintain prices instead of putting them up, because volume of production had expanded faster than anticipated. This company had raised its prices only once--by 5 percent--since 1979. However, this company, like the others, was also making losses on its assembly operations.

5.07 Car assembly companies do have other, more profitable activities than assembly with which to offset their losses at least partially. Importing and selling spare parts appears to be an important source of income. Sales of fully assembled vehicles imported under license were mentioned by officials of two companies as contributing significantly to company revenues. According to

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1/ These figures are already outdated. According to our infield inquiries, Leyland and Peugeot produced 9,000 and 48,000 vehicles in 1980, respectively. Peugeot made substantial investments in 1980 to raise production to 52,000 cars in 1981. Leyland Nigeria is currently operating two shifts and Volkswagen-Nigeria was scheduled to move to two shifts in June of this year, substantially increasing its volume of production. In the case of one company, the decision to utilize an existing plant more intensively by going to a third shift clearly does not depend on additional demand since there is considerable evidence of strong excess domestic demand for this company's car. Because of the government's price policy it is possible that neither going to a third shift nor expansion of capacity appears warranted at this moment.

one company official, there are no price controls on spare parts; an official of another company, however, indicated that spare parts were price controlled. Perhaps such ceilings as may exist are either not binding or do not have an adverse effect on the profitability of the business. Profits from these ancillary activities, however, are apparently not high enough to offset losses on assembly operations.

5.08 There seems to be reason to believe that producer prices are being held so low by government price legislation as to prevent companies from earning a normal rate of return on their shareholders' investment. Presumably producer prices are still well in excess of import c.i.f. prices. However, it is well to note that with producer prices having been held down from 1978 or 1979 and only being allowed to rise moderately (compared to increases in costs) in recent months, the margin by which they currently exceed import c.i.f. prices may be much less than was the case in 1977 or 1979. Thus the Bertrand and Robertson estimates of the level of effective protection for 1977 and those by Robertson for 1979 may considerably overstate the extent to which the industry is currently protected.

5.09 The policy of holding down the producer price of motor vehicles seems to be of doubtful validity. The beneficiaries of the price control policy in the current situation of excess demand for many car models would appear to be middlemen who buy at the controlled price and resell at the high market clearing price. One car whose ceiling dealer's price is ₦6,700 (with air-conditioning) is known to command a price as high as ₦8,000 to ₦9,000 when resold in this way. For the car in question, waiting time typically exceeds one month and prospective customers have to make deposits with dealers. 1/ With the ceiling ex-factory or recommended dealer's prices being set low to clear the market, the equity holders in the assembly companies--principally Federal and State Governments--instead of getting a normal rate of return on their investment, actually lose money, and this may be expected to have a discouraging effect on expansion of capacity to levels capable of satisfying domestic demand and potential demand in export markets.

Export Potential and Incentives

5.10 The only positive aspect of all of this, from the standpoint of promoting export sales, is that, to the extent maintenance of price ceilings has narrowed the substantial differentials between domestic ex-factory and world prices observed by Bertrand and Robertson, the magnitude of the export subsidy, which would be required to provide companies adequate incentive to export, is lowered accordingly.

5.11 From the mission's interviews, it was clear that, while exports have not yet materialized despite the ceiling on domestic prices and the "apparent" excess capacity, an interest in exporting exists and that companies' capacity

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1/ It is difficult, however, to see why prospective purchasers would be willing to pay ₦8,000 to ₦9,000 to buy a car when by waiting a little over a month they could buy it from an authorized dealer at ₦6,700.

expansion plans could depend in part on government policy. Two of the three largest vehicle assembly companies expressed definite interest in exporting; one is obligated to export 15 percent of its output when it reaches full capacity production and the other has recently exported 100 vehicles to Ghana on behalf of the Nigerian government. The third company may be restricted from exporting by the terms of its marketing agreement with the European company whose car it manufactures. It is not clear whether they would have a franchise to export to other West African countries. It is apparently also this company's policy to satisfy at least 50 percent of the domestic market before considering exporting, and it is judged that the Nigerian market is far from exhausted--they estimate that a potential domestic demand exists at current prices for 130,000 of their cars per year--this is far above their current capacity. It also is the level of production at which declines in unit costs are estimated to level off.

5.12 A need for clearer guidelines on export policy and incentives to export was expressed by the management of one firm, and officials of two companies indicated a belief that their products were not far from being cost competitive with vehicles of the same company made elsewhere. In one case, unit cost (ex-factory price) was reported to be only 15-20 percent higher than in the U.K. However, it was not clear whether this was based on a comparison between plants of similar scale (the Nigerian plant is built to a relatively small scale) or represented a comparison of the Nigerian plant's ex-factory unit cost with an export or import parity price. At any rate, for this company to export its most "saleable" model without cutting into its domestic sales would involve a policy of horizontal specialization and/or expansion of capacity, since domestic demand for this model currently exceeds the plant's ability to produce it running two shifts. The vehicles for which the company has excess capacity and would like to be able to export are heavy commercial vehicles.

5.13 An official of another company stated that the only incentive needed to export is equalization of the price to be received for exporting with that received for selling in the domestic market. This could be accomplished by an explicit export subsidy. The subsidy would have to be fairly large, however, since it would have at least to equal the nominal rate of protection on cars which, as we have noted, is quite high for 1979. Consideration of the extent to which production volumes have increased since then and the importance of economies of scale in motor vehicle assembly may suggest also that the industry's need for protection may have diminished somewhat, but the reports of losses due to inadequate price incentives indicate that the need still exists.

5.14 Considerable interest in the import duties rebate scheme was expressed by one company official. Import duties on car kits have recently been raised to as high as 18 percent and car kits make up a large percentage of car production costs (ranging from 42 to 70 percent). Given the high share of production costs made up by imports and the moderately high tariff on car kits, an import duty rebate on materials used in exports can be seen to have a significant impact on costs. Assuming a nominal rate of protection of 30 percent for sales in the domestic market, 18 percent on imports of material

inputs, and assuming that imported inputs account for 60 percent of total production costs, an import duty rebate would have to be supplemented by an export subsidy of about 14 percent of the domestic market price of the industry's product to equalize the attractiveness of exporting and selling in the domestic market. 1/ Thus, if the domestic price were ₦5,000, the import duty rebate would be about ₦460, and an export subsidy of ₦700 would be required in addition, to completely remove the anti-export bias.

5.15 Import restrictions appear to have essentially limited the supply of cars to what can be domestically produced, (although there is still some importation of vehicles under special license), creating a situation of chronic excess demand. Domestic production of passenger cars has expanded rapidly since 1975, while imports have been held at or below the level reached in that year. As a result, imports have been making up a declining share of passenger car sales. The opposite tendency can be observed for trucks; however, imports of trucks have not been restricted yet.

5.16 For the foreseeable future, domestic demand for cars and trucks is likely to grow vigorously. 2/ Nigeria's car and truck population is well below the statistical norm for its population size and per capita income level, which is not surprising, considering what a large increase in gross domestic income per capita has taken place in just a few years time, and the government's policy since 1979 of restricting sales of passenger cars to what the domestic car industry can provide.

5.17 Nigeria's principal export market for cars would seem to be in other African countries, particularly ECOWAS countries. One might ask, however, how essential it is for Nigeria to export cars in order to expand its motor vehicle assembly industry's capacity to the point where economies of scale become substantial. As noted, the Nigerian market itself is very large, and it would seem that what is most critical for the healthy development of the automobile industry is for Nigeria to limit the number of models being

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1/ We have as the condition for exporting and selling in the domestic market to be equally attractive: $1/(1+t) - \alpha m/(1+tm) + S = 1-\alpha m$. Where t is the nominal rate of protection on the final good, t_m is the nominal rate of protection on imported inputs, αm is the share of imported inputs in production cost at domestic prices, and S is the export subsidy required as a percentage of the domestic price of the industry's product.

2/ Motor vehicle imports of all kinds grew from 1973 to 1977 at an average compound rate of 41 percent per year; passenger car imports grew at an average compound rate of 16 percent per year over this period (jumping from 43,898 in 1974 to 76,756 in 1975, an increase of 75 percent in just one year). During the same period the value added weighted index of vehicle assembly grew by 75 percent a year, but stagnated during the following two years. From 1974 to 1977 the value of gross output rose from 27 percent of the CIF value of imports to 52 percent, indicating that during this period imports were making up a declining share in total domestic supply of vehicles.

assembled so as to achieve the scale of production of individual models necessary to integrate backward successfully, and to provide adequate price incentives to manufacturers to encourage fuller utilization of existing capability and expansion of capacity for existing models. It would seem that this could be done without saturating the domestic market for a long time to come.

VI. LNG, CHEMICAL AND PETROCHEMICAL INDUSTRIES

6.01 These industries (essentially LNG, nitrogenous fertilizer and petrochemical complex) are highly capital-intensive and their market is nearly completely controlled by multinational firms. The critical question apart from the assurance of the availability of raw materials is the ability of the Government to secure the marketing arrangements. Apart from LNG, given the rapidly growing domestic market, it is unlikely that exports can be significant, particularly after the initial operating years of the key projects.

LNG Project

6.02 The export of gas has been considered by the Government since the early 1970s. Since then, different project designs were considered but, for various reasons, the implementation of the LNG project has not yet begun. At present a new study of the LNG project by a group of consultants under the responsibility of the Energy Adviser to the President is underway. This study will likely consider a project of a smaller size than the one recently proposed by the Bonny LNG Ltd. which is no longer in existence.

6.03 The proposed LNG project by the Bonny LNG Ltd. in Rivers State is conceived to utilize Nigeria's gas resources for export to Western Europe and the U.S. starting in 1985. It would include four components: a production component for the drilling of wells to produce the non-associated gas to supply three-quarters of the plant's requirements; a gathering and transmission of gas; a natural gas liquefaction plant with a capacity of nearly 2 billion standard cubic feet/day of natural gas; and a shipping network of about 16 ships, each with a capacity of 129 thousand tons. The LNG plant by using gas partly produced in association with oil production would contribute to the elimination of flaring of oil gas in Nigeria.

6.04 There is little doubt that gas resources in Nigeria are more than adequate to meet forseeable domestic needs. Nigeria has vast reserves of natural gas which have been utilized only marginally so far. There is more gas on an oil equivalent basis than there is crude oil and for most part it is unassociated gas. Total gas production required over the life-time of the project is estimated at about one-fifth of current gas reserves in Nigeria. Moreover, the project does not seem to compete with domestic consumers of gas since the requirements of the latter would come to only one-quarter of current reserves. The latter is only a rough estimate and therefore it is urgent that a gas development and utilization study be undertaken.

6.05 The project's total cost (including contingencies, interest during construction and start-up expenditures) was estimated by Bonny LNG Ltd. at about US$13.7 billion, half of which would be to build the plant itself and the remaining half would be split between production, transmission, and shipping in the following approximate ratio 1:2:3. The foreign exchange surplus from the project, according to the same source of information was estimated to total about US$11 billion on average per year (current prices) over the lifetime of the project. This seems exaggerated. Indeed, applying less favorable assumptions, but by no means unrealistic (high investment and operating costs, lower LNG price and delay in the production start-up), the operating surplus from the project during its lifetime is estimated to amount to half of what was estimated by the Bonny company, of which about 80 percent would be foreign exchange earnings net of debt service as well as factor payments.

6.06 The profitability of the project depends critically on the marketing arrangements including the pricing structure and indexing formula. Though the study does not present the economic rate of return, it would be surprising if the ERR is found unattractive. In fact, based on the information presented in the study, the ERR of the overall project has been calculated to be between 15 percent (using conservative assumptions) and 30 percent (base case). However, while this is acceptable, it is not clear if the project has been considered in the light of alternatives for the utilization of excess gas and national investment priorities.

Fertilizer Project

6.07 The proposed project is conceived to produce nitrogenous fertilizers from natural gas at Onne at Port Harcourt. The project would have a daily capacity of 1.0 thousand tons each of ammonia and NPK and 1.5 thousand tons of Urea. The total cost is estimated at about US$700 million (1980 prices). There is little doubt that the quantity of gas available in Nigeria is in excess of power generation requirements and the needs of a possible LNG export project, the two major users for gas in the country. The success of the project will critically depend on efficient project implementation, operation, and marketing arrangements. The preliminary estimate of the ERR is low (about 12 percent) compared with that commonly expected elsewhere for similar projects.

6.08 It is estimated that almost all the NPK produced will be consumed domestically. However, there will be excess in Urea production and this will be exported in the initial years of production. Total export surpluses for Urea and NPK is respectively estimated at about US$140 million (1980 prices) and US$60 million between 1984 and 1989.

Petrochemical Complex

6.09 This project is to be located near Port Harcourt. It was first highlighted in the Third Plan and now is under serious consideration, at least its first phase. The proposed project has a capacity of about 900,000 metric tons per annum of various products and is expected to be implemented in three phases during the 1980s. The project is conceived to use by-products from

existing refineries (Warri and Kaduna) and natural gas as raw materials. The first phase of the project is at an advanced stage. The feasibility study is ready and the engineering work is one-fifth completed. The completion date of phase I is expected to be 1983. The main products of phase I are polypropeline (35,000 mt per year to be used for packaging, chemicals, plastics, carpet, solid application, bottles and containers, pharmaceuticals, etc.), carbon-black (25,000 mt per year to be used for tires, tubes, ink, etc.) and detergents (40,000 mt per year). Of the three products, carbon-black is reported to be the main export candidate in the short-term. Phase I of the project is estimated to cost about US$500 million and create about 1,000 jobs.

6.10 Phase II of the project consists of the main petrochemical complex. The products that will be manufactured include ethylene (200,000 mt/year) polyethylene, chlorine, chloride (145,000 mt/year of both vinyl and polyvinyl) and methanol. There will be about 100,000 mt of caustic soda as by-products of the petrochemical complex, some of it (20 percent) will be available to the export market. The complex will involve 13 processing units and cost about US$2.0 billion. The plant is expected to be in operation in 1986. According to NNPC officials, there will be excess of production over domestic requirements in the first few years of the project lifetime. The excess can be removed by exporting abroad. The same source of information indicates that foreign exchange savings from the project would amount to about US$150 million per year (under conservative assumptions, i.e., full borrowing and non-escalating prices).

6.11 Phase III of the project is, at present, only at a conceptual stage. It is conceived to produce by-products to be used for synthetic fiber, special plastics, and engineering plastics.

Soap and Detergents

6.12 The soap, detergents, perfumes industry, although enjoying high net effective protection, was classified by Bertrand and Robertson as a "possibly viable" industry primarily because of its low wage costs to value added ratio (25 percent). This was interpreted as indicative of excess profits in the industry sufficient to enable it to absorb the losses which would occur as a result of a removal of all market interventions. An interesting point is that this is an industry for which (as of 1977) palm oil was a major element of raw material costs (12 percent on average according to Bertrand and Robertson, and in some cases as high as 60 percent). Since the value added ratio was 44 percent, palm oil cost translates into about 7 to 34 percent of total cost. Bertrand and Robertson claim that while the industry, with approved user status, was able to import duty free much of its palm oil requirements and other vegetable oils at moderate rates of duty (seemingly lending support to their contention that vegetable and palm oil processing in particular were not effectively protected at the time) firms were able to purchase the balance of their requirements in the form of locally produced palm oil at only slightly (10 percent or so) above the border world price. (They seem to have in mind, in particular, a plant in Imo State.) This can be possibly reconciled with the evidence of retail domestic wholesale prices for palm oil

two to three times world levels by taking into account the difference between high quality edible oil and low quality technical oil of the kind used in soap manufacture. It should be noted that over the period 1962/64 through 1976 while exports of edible palm oil were disappearing, those of inedible palm oil were actually rising. It should also be noted that in recent years the soap industry has to a large extent substituted the use of imported tallow fat for palm oil in its manufacturing process.

6.13 There is strong evidence of illegal export of detergents and other industry products to other African countries. The mission learned that a detergent plant in the Ivory Coast was closed because of inability to meet the competition from illegally imported Nigerian "OMO" detergent. Since the nominal tariff rate or observed price distortion in 1977 was only 41 percent and that for 1979 was 60 percent below the CFA franc premium against the Naira (which averaged around 80-90 percent as observed on various markets in mid-1978), illegal exports of some magnitude should come as no surprise. If illegal exports of soap containing palm oil are taking place, this would constitute indirect exports of palm oil which otherwise have been classified as non-traded goods.

6.14 Incidentally, the detergent industry is one in which indications are that economies of scale are important. Output of this industry has grown rapidly over the last few years, although domestic demand has grown even more rapidly, leading to imports making up an increasing share of total supply, a seemingly paradoxical situation in industry which apparently supplies a significant volume of illegal exports for other African countries. The importance of economies of scale and the evidence of excess profits in the Nigerian detergents industry suggest that in spite of the currently positive net effective protection, the industry may be viable and a potential exporter under conditions of free trade.

Table 1 - AVERAGE ANNUAL LABOR COSTS (INCLUDING FRINGES) PER EMPLOYEE IN TEXTILE MILLS (US$ Dollars

	Workers	Staff	Expatriates
Nigeria			
Aswami Textile, 1979	2,055	-	-
Kaduna Textiles, 1980	3,586	-	-
Nigerian Textile Mills	-	14,940	-
Other African Countries, 1978			
Firm A	720	2,000	22,000
Firm B	475	3,797	22,928
Firm C	1,395	2,497	40,437
Firm D	3,857	10,714	51,924

Note: Decaux's figures of Aswami Textiles understate labor costs because they do not include employer's contribution to the workers' pension fund. Mission interviews indicated that total fringes including pension fund contributions, canteen subsidy, etc., could run as high as 40 to 80 percent of the basic cash wage. On the other hand, Decaux indicates that the average number of working days is 301, which seems on the high side. It seems to imply workers work a six day rather than a 5 day week. Paid holidays and Christmas bonus bring the number of paid days in a year to 369 by Decaux's calculations, and the annual labor costs presented here are based on this figure.

Source: Mission estimates.

Table 2 - PAYROLL COSTS PER KILOGRAM OF FINISHED CLOTH, 1978
(US$ dollars)

Nigeria, Afprint a/	
Wage bill for 1979 ÷ actual output of 1978	3.72
Wage bill for 1979 ÷ capacity output of 1978	1.47
Plants in other African Countries	
Firm A	0.69
Firm B	0.86
Firm C	0.97
Firm D	2.33
Firm E	2.38

a/ i) These estimates must be used with reservations since the wage bill is for 1979 rather than 1978, and even if it were for 1978, it might not be full comparable to the labor costs data for the plants in other countries.

ii) Wage rates at Afprint after being essentially constant from 1977 to April 1979, rose somewhat after April 1979. The minimum wage went from ₦2.88 to ₦3.30 at this point.

Source: Mission estimates.

Table 3 - IMPORTS AND DOMESTIC PRODUCTION OF PRINCIPAL CATEGORIES OF TEXTILES
(000 Square Meters)

	Cotton Grey Cloth			Cotton Printed Fabrics		
	Imports	Domestic Production	Total	Imports	Domestic Production	Total
1948	21864	-	21864	-	-	-
1950	19236	-	19236	55500	-	55500
1955	28294	-	28294	53700	-	53700
1960	5602	15050	20652	82700	-	82700
1969	131651	40150	171801	-	-	-
1970	165015	44580	209595	1500	163000	164500
1971	93895	44240	138135	6500	151000	157500
1972	6925	21800	28725	10400	118700	129100
1973	383	51775	52158	5900	148700	154600
1974	436	54102	54538	2100	149700	151800
1975	728	68045	68773	5500	154500	160000
1976	779	86003	86782	4800	184100	188900
1977	-	-	-	5000 a/	180000 a/	185000 a/
1978	-	-	-	-	205000 a/	205000 a/

a/ Estimate

Note: The bulge in total consumption of grey cloth in the late 1960s and early 1970s (1969 through 1971 in the table above) was due to the importation of large quantities of unbleached cotton print cloth for use in the recently established printed fabrics industry which had not yet integrated backward. In 1972, firms integrated backward to the weaving and finishing stages following government directives to do so.

Source: Textile Consult S.H., Survey of the Nigerian Textiles Market, June 1979.

Table 4 - TEXTILES - ESTIMATED DEMAND AND SUPPLY, 1978 and 1982
(million meters)

	Domestic Production	Estimated Imports	Total Supply	Demand	"Repressed Demand" (4)-(3)	Demand Deficit (4)-(1)	Domestic Production as % of Total Supply (1)-(3)	Domestic Production as % of Total Demand (1)-(4)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Textiles (all kinds)								
1978	550	150	700	1000	300	450	79	55
1982	604	100	703	1215	512	611	86	50
Baft								
1978	30	-	30	92	62	62	100	32
1982	30	-	30	110	80	80	100	27
Shirtings								
1978	166	22	188	269	81	103	88	62
1982	173	15	188	321	133	214	92	54
African Prints								
1978	136	90	226	306	80	170	60	44
1982	165	60	225	379	154	214	73	43

Notes: Total demand for various categories of textiles is hypothesized to grow over the four year period at rates ranging from 4.5 to 5.3 percent per year. Population is projected to grow at 2.6 percent per year. Unrecorded imports are projected to fall by 1982 to two-thirds their estimated levels in 1978, even though the gap between estimated total demand (including repressed demand) and domestic supply is projected to grow in absolute terms from 450 million meters to 511 million meters for all categories combined, and to increase for each category of textiles except sheetings.

Projected increases in output are modest: 9 percent for baft, 1.8 percent for shirrings, 19 percent for African prints and,

Source: Textile Consult S. H., Survey of the Nigerian Textiles Market, June 1979.

Table 5 - DOMESTIC DEMAND AND SUPPLY OF CEMENT, 1969-1978

	Domestic Production (000 tons)	Domestic Demand (000 tons)	Deficit (000 tons)	Production as % of Demand	Per Capita Consumption (kgs)	Population (million)	GDP Per Capita (₦)
1969	646	749	103	86.3	11.6	64.6	132.6
1970	689	1148	459	60.0	17.3	66.2	163.7
1971	769	1731	962	44.4	25.5	67.8	179.8
1972	1139	1848	709	61.6	26.6	69.5	179.0
1973	1188	2043	855	72.0	28.7	71.2	184.8
1974	1235	2281	1046	54.1	31.2	73.0	197.8
1975	1256	2988	1732	42.0	39.9	74.8	190.9
1976	1298	3648	2350	35.6	47.6	76.7	207.1
1977	1369	4919	3550	27.8	62.5	78.7	212.7
1978	1635	6002	4367	27.2	74.5	80.6	465.1

Source: Martin, A Review of the Demand and Supply of Cement in Nigeria, World Bank (mimeo), 1979.

Table 6 - PROJECTIONS OF DOMESTIC DEMAND AND SUPPLY OF CEMENT, 1979 - 1985

	Domestic Production (000 tons)	Domestic Demand (000 tons)	Deficit (= imports) (000 tons)	Production as % of Demand	Consumption Per Capita (kg)	Population (millions)
1978 (actual)	1635	6002	4367	27.2	74.5	80.6
Case A						
1979	2330	6452	4122	36.1	78.1	82.6
1980	3420	6936	3516	49.3	81.9	84.7
1981	4270	7456	3186	57.3	85.9	86.8
1982	4930	8015	3085	61.5	90.0	89.0
1983	5060	8616	3558	58.7	94.5	91.2
1984	5110	9262	4152	55.2	99.1	93.5
1985	5110	9957	4847	51.3	103.9	95.8
Case B a/						
1979	2330	6002	3672	38.3	72.7	82.6
1980	3420	6002	2582	57.0	70.9	84.7
1981	4270	6452	2182	66.2	74.3	86.8
1982	4930	6936	2006	71.1	77.9	89.0
1983	5060	7456	2396	67.9	81.8	91.2
1984	5110	8015	2905	63.8	85.7	93.5
1985	5110	8616	3506	59.3	89.9	95.8

a/ Cases A and B differ only with respect to the assumption concerning domestic demand. While the domestic demand is assumed (in case A) to increase by 7.5 percent between 1978 and 1979, such a growth rate (by assumption) is deferred until the period 1980-81 in case B.

STATISTICAL APPENDIX

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Table 1: PRODUCTION TRENDS OF PRINCIPAL CROPS, 1962-1980
(Thousand Metric Tons)

Crop	1962	1965	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	Average Annual Growth Rates (%) a/ 1962-70	1970-80
Food Crops															
Maize	652	841	1,299	938	1,064	547	1,215	1,300	1,300	1,350	1,480	1,500	1,550	9.0	1.8
Sorghum	4,100	3,700	3,816	3,140	3,561	2,968	3,500	3,680	3,680	3,750	3,760	3,785	3,800	-0.9	-0.1
Millet	2,530	2,729	2,763	2,946	3,048	2,350	2,800	2,865	2,865	2,950	3,100	3,130	3,200	1.1	1.0
Rice (paddy)	258	232	343	388	447	487	525	515	534	647	515	600	725	3.6	12.1
Roots & Tubers	20,823	21,698	25,134	25,288	25,847	26,087	26,997	27,518	28,230	27,730	28,755	27,665	28,775	2.4	1.4
Cassava	7,400	8,200	10,206	9,172	9,570	9,600	10,000	10,500	10,800	10,600	10,500	10,500	11,000	4.1	0.8
Export Crops															
Cotton	103	142	272	115	137	144	90	110	183	243	111	110	90	12.9	-10.4
Groundnut (in shell)	1,923	1,978	1,581	1,554	945	350	400	280	500	300	450	540	570	-2.4	-9.7
Cocoa (beans)	182	187	305	257	241	215	214	215	165	202	160	180	175	6.7	-5.4
Palm Oil	504	574	540	600	590	590	600	640	655	660	670	650	675	0.9	2.3
Palm Kernels	437 b/	456	299	307	270	231	310	300	295	302	239	335	345	-4.6	1.4
Rubber	62	71	65	62	57	66	78	68	52	59	58	60	-	0.6	-0.9 c/

a/ Compound growth rates for 8 and 9 years, respectively.
b/ 1961
c/ 1970-79

Source: FAO, Production Yearbook, various issues.

Table 2: QUANTITY, VALUE AND UNIT VALUE of MAJOR NON-OIL EXPORTS

	1961	1965	1970	1975	1976	1977	1978	1979	Growth Rate 1961-70	Growth Rate 1970-79
Quantity ('000 Tons)										
Groundnuts	502.0	520.0	291.2	0.0	1.6	0.8	0.0	0.0	-6.0	-56.9
Groundnut Oil	45.9	92.2	90.3	0.3	0.0	0.5	0.2	0.0	7.8	-53.4
Groundnut Cake	75.9	114.6	162.1	6.9	31.1	8.5	5.2	1.3	8.8	-41.5
Palm Kernels	417.2	422.2	185.3	171.4	272.0	181.7	115.7	72.3	-8.6	-9.9
Palm Kernel Oil	0.0	1.0	32.8	21.1	13.4	15.4	39.3	51.4	-	5.1
Palm Kernel Cake	0.8	4.0	30.1	23.5	27.9	10.5	40.7	76.0	49.6	10.8
Palm Oil	167.2	152.3	7.6	31.3	3.3	0.5	3.2	0.0	-29.1	-10.2
Rubber	55.8	69.0	59.3	47.8	27.4	35.4	29.4	24.0	0.7	-9.6
Raw Cotton	48.7	24.9	28.3	0.0	0.0	9.2	3.2	24.9	-5.9	-1.4
Seed Cotton	74.1	71.3	96.0	0.2	0.0	0.4	9.9	1.5	2.9	-37.0
Cottonseed Caked	0.0	0.0	0.0	*	15.9	28.0	16.4	7.1	-	-
Cocoa Beans	186.9	305.6	195.9	194.7	223.0	165.0	191.7	125.0	0.5	-4.8
Cocoa Paste	0.0	0.0	9.1	9.7	5.0	6.8	3.7	4.0	-	-8.7
Cocoa Butter	0.0	0.0	9.4	9.3	6.0	7.7	4.2	7.5	-	-2.5
Cocoa Power and Cake	0.0	0.0	0.5	0.5	0.8	1.4	1.8	1.5	-	12.9
Tin Metal	0.6	10.7	10.9	4.7	3.2	3.0	3.1	0	38.0	-14.5
Timber and Plywood										
Hides and Skins										
Bran and Milling Products	0.0	0.0	0.0	38.0	74.0	155.0	140.0	155.0	-	-
Oilseed Cake and Meal	76.7	118.5	192.2	30.4	74.9	47.0	62.3	84.4	10.7	-8.7
Value ('000 US Dollars)										
Groundnuts	90251.0	105854.0	60842.0	0.0	267.0	127.0	0.0	0.0	-4.3	-58.6
Groundnut Oil	13977.0	28035.0	32611.0	260.0	0.0	500.0	200.0	0.0	9.9	-47.1
Groundnut Cake	5407.0	14704.0	15454.0	925.0	3441.0	1523.0	670.0	200.0	12.4	-38.3
Palm Kernels	55688.0	74314.0	30435.0	30030.0	43376.0	52942.0	29090.0	25300.0	-6.5	-2.0
Palm Kernel Oil	0.0	316.0	11660.0	11990.0	5065.0	5819.0	21200.0	39000.0	-	14.4
Palm Kernel Cake	59.0	308.0	2359.0	3137.0	2850.0	1504.0	4500.0	10000.0	50.7	17.4
Palm Oil	37035.0	38055.0	1590.0	6264.0	829.0	200.0	1000.0	0.0	-29.5	-5.6
Rubber	30730.0	30769.0	24596.0	17707.0	18500.0	25000.0	19850.0	22000.0	-2.4	-1.2
Raw Cotton	31140.0	16750.0	18385.0	0.0	0.0	15665.0	6514.0	47000.0	-5.7	11.0
Seed Cotton	5337.0	4922.0	5863.0	77.0	0.0	368.0	993.0	150.0	1.0	-33.5
Cottonseed Cake	0.0	0.0	0.0	8.0	1840.0	3900.0	2000.0	930.0	-	-
Cocoa Beans	94490.0	119534.0	186305.0	294050.0	349327.0	482600.0	595200.0	363000.0	7.8	7.7
Cocoa Paste	0.0	0.0	3022.0	6848.0	5777.0	28540.0	14650.0	15000.0	-	19.5
Cocoa Butter	0.0	0.0	18573.0	33170.0	23068.0	59678.0	27700.0	36000.0	-	7.6
Cocoa Powder and Cake	0.0	0.0	161.0	439.0	1987.0	6424.0	7100.0	5000.0	-	46.5
Tin Metal	1400.0	41700.0	46500.0	28100.0	21400.0	25000.0	28870.0	0.0	47.6	-5.8
Timber and Plywood										
Hides and Skins			8296.0	11038.0	10877.0	6019.0				
Bran and Milling Products	.0	.0	0.0	3000.0	7200.0	16000.0	13000.0	17000.0	-	-
Oilseed Cake and Meal	5466.0	15012.0	17813.0	4070.0	8175.0	6927.0	7170.0	11130.0	14.0	-5.1
Unit Value (US$/Ton)										
Groundnuts	180.0	204.0	209.0	0.0	167.0	159.0	0.0	0.0	1.7	-3.8
Groundnut Oil	305.0	304.0	361.0	867.0	.0	1000.0	1000.0	0.0	1.9	13.6
Groundnut Cake	71.0	128.0	95.0	134.0	111.0	179.0	129.0	154.0	3.3	5.5
Palm Kernels	133.0	176.0	164.0	175.0	159.0	291.0	251.0	350.0	2.4	8.8
Palm Kernel Oil	0.0	316.0	355.0	568.0	378.0	378.0	539.0	759.0	0.0	8.8
Palm Kernel Cake	74.0	77.0	78.0	133.0	102.0	143.0	111.0	132.0	0.6	6.0
Palm Oil	222.0	250.0	209.0	200.0	251.0	400.0	313.0	0.0	-0.7	5.2
Rubber	551.0	446.0	415.0	370.0	675.0	706.0	675.0	917.0	-3.1	9.2
Raw Cotton	639.0	673.0	650.0	0.0	0.0	1703.0	2036.0	1888.0	0.2	12.6
Seed Cotton	72.0	69.0	61.0	385.0	0.0	920.0	100.0	100.0	-1.8	5.6
Cottonseed Cake	0.0	0.0	0.0	320.0	116.0	139.0	122.0	131.0	0.0	0.0
Cocoa Beans	506.0	391.0	951.0	1510.0	1566.0	2925.0	3105.0	2904.0	7.3	13.2
Cocoa Paste	0.0	0.0	332.0	706.0	1155.0	4197.0	3959.0	3750.0	0.0	30.9
Cocoa Butter	0.0	0.0	1976.0	3567,0	3845.0	7750.0	6595.0	4800.0	0.0	10.4
Cocoa Powder and Cake	0.0	0.0	322.0	878.0	2484.0	4589.0	3944.0	3333.0	-	29.7
Tin Metal	2333.0	3897.0	4266.0	5979.0	6688.0	8333.0	9313.0	0.0	6.9	10.3
Timber and Plywood										
Hides and Skins										
Bran and Milling Products	0.0	0.0	0.0	79.0	97.3	103.0	93.0	109.0	0.0	0.0
Oilseed Cake and Meal	71.0	127.0	92.0	134.0	109.0	147.0	115.0	132.0	2.9	4.1

*Negligible.
Source: FAO, Trade Yearbook, various issues.

Table 3: INDICES OF AVERAGE WEEKLY PRICES (C.I.F.) IN LONDON OF NIGERIA'S MAJOR AGRICULTURAL EXPORT COMMODITIES

(1974 = 100)

	Weights	1975	1976	1977	1978	1979	1980	1981 /a
All Commodities	100.0	67.0	106.7	166.3	141.3	152.7	126.4	11.1
Benniseed	5.4	91.0	90.6	114.9	145.0	138.5	119.9	130.6
Cocoa	15.3	76.7	131.9	250.8	193.9	183.4	104.7	108.7
Coffee	10.8	103.4	227.2	409.4	216.5	273.9	169.5	170.7
Copra	5.6	36.6	39.4	62.2	76.6	100.7	55.3	55.4
Cotton Lint	13.2	81.4	118.6	109.3	114.2	118.0	120.6	123.5
Ginger	14.8	78.8	79.6	152.5	159.0	214.5	59.8	59.8
Groundnuts	5.1	68.1	64.7	95.5	102.6	92.9	88.7	94.0 /b
Groundnut Oil	9.9	80.9	72.3	91.0	105.5	72.2	87.5	89.9
Palm Kernels	4.0	45.2	50.8	74.1	82.3	105.1	55.2	65.3
Palm Oil	6.0	63.7	57.3	79.1	88.5	92.1	71.9	80.1
Rubber	7.5	90.8	146.4	157.0	166.4	152.2	147.8	134.8
Soyabeans	2.4	74.8	77.4	107.3	104.4	108.3	101.9	104.0

/a As of March 1981.

/b As of February 1981.

Source: Central Bank of Nigeria.

Table 4: PURCHASES AND PRICES OF OIL PALM PRODUCE, 1971-80

Year	Purchases		Producer Price				Average f.o.b. Price	
			Current		Deflated		Current	
	P.O	P.K	P.O	P.K	P.O	P.K	P.O	P.K
	--('000 Mt)--		----------(₦/Mt)----------					
1971	20	268	89	59	145	96	n.a.	n.a.
1972	13	231	98	59	156	94	n.a.	n.a.
1973	26	306	203	130	305	195	n.a.	n.a.
1974	66	250	265	150	354	201	n.a.	n.a.
1975	35	170	265	150	265	150	n.a.	157
1976	3	154	295	150	242	123	n.a.	236
1977	n.a.	173	355	150	240	101	n.a.	248
1978	n.a.	240	355	150	193	81	n.a.	174
1979	n.a.	231	450	180	220	88	n.a.	n.a.
1980	n.a.	197	495	200	242	98	n.a.	n.a.

n.a. = not available

P.O. = Palm Oil; P.K. = Pal Kernel

Source: Purchases - Nigerian Palm Produce Board and Central Bank of Nigeria.

Producer Prices - Nigerian Palm Produce Board and Central Bank of Nigeria.

Average f.o.b. Price - Central Bank of Nigeria.

Table 5: PURCHASES AND PRICES OF COCOA, 1970-80

YEAR	PURCHASES ('000 mt)	PRODUCER PRICE (₦/Mt)
1970	308	310
1971	257	310
1972	241	310
1973	215	450
1974	214	660
1975	217	660
1976	166	660
1977	204	1,030
1978	161	1,030
1979	144	1,200
1980	114	1,300

* Estimated: in the second half of 1980 the unit value had fallen to about ₦1,000/Mt.

Source: Purchases - (1970-77) - Nigerian Cocoa Board

Producer Prices - (1970-73) - Nigerian Cocoa Board
(1974-80) - Central Bank of Nigeria

Table 6: PURCHASES AND PRICE OF COTTON, 1960-80

Year	Purchases Seed Cotton ('000 Mt)	Purchase Price Seed Cotton (₦/Mt)
1960	151	n.a.
1965	129	n.a.
1970	113	n.a.
1971	110	n.a.
1972	137	133.9
1973	81	113.4
1974	143	201.6
1975	170	308.0
1976	246	308.0
1977	117	330.0
1978	117	330.0
1979	117	330.0
1980	78	400.0

n.a. = not available.

Source: Purchases - (Seed Cotton - Nigerian Cotton Board and Central Bank of Nigeria.
Purchase Price - (Seed Cotton) - Nigerian Cotton Board.

Table 7: PURCHASES AND PRICES OF GROUNDNUTS, 1960-80

Year	Purchases ('000 Mt)	Producer Prices (₦.Mt)	C.i.f. European Ports ($/Mt)	C.i.f. European Ports (₦/Mt)
1960	619	75	197	141
1965	977	68	206	147
1970	381	63	230	164
1971	301	67	249	177
1972	511	80	261	172
1973	42	92	393	259
1974	161	165	607	382
1975	42	250	452	278
1976	12	250	424	265
1977	5	275	551	355
1978	0.4	290	618	393
1979	18	350	564	308
1980	-	420	n.a.	n.a.

n.a. = not available.

Source: Purchases - (1960-75) - Groundnut Board.
(1976-78) - Central Bank of Nigeria.

Producer Price - Nigerian Groundnut Board.

C.i.f. European Ports - Oil World.

Table 8: NIGERIA - PURCHASES AND PRICES OF RUBBER

Year	Purchase ('000 Mt)	Producer Price				Average f.o.b. Price
		RSS 1	RSS 3	NSR 5L	NSR 20	
		(N/Mt)				
1977	25	550	530	575	530	529
1978	22	550	530	575	530	692
1979	21	680	640	690	640	696
1980	20	795	755	795	745	n.a.

n.a. = not available.

Source: Purchase - Central Bank of Nigeria.
Producer Price - Central Bank of Nigeria.
Average f.o.b. price - Central Bank of Nigeria.

Table 9: GUARANTEED MINIMUM PRICES OF FOOD CROPS

(Naira per ton)

	1976	1977	1978	1979 /a	1980	1981	Growth Rate (1976-81)
Beans	-	180	180	345	345	362	15.0 /b
Cassava (Processed)	85	110	110	n.a.	n.a	n.a.	n.a.
Maize	95	130	130	200	200	210	14.2
Millet	80	110	110	220	220	321	26.0
Rice (milled)	-	400	400	570	570	596	8.3 /b
Rice (paddy)	185	240	240	329	329	345	10.9
Sorghum	80	110	110	210	210	220	18.4
Wheat	-	*	*	235	235	247	n.a.
Yams	85	120	120	*	n.a	n.a.	n.a.

n.a. - Not available.
/a Revised.
/b 1977-81.

Source: Technical Committee on producer prices, Central Bank of Nigeria.

TABLE 10: COMMODITY BOARD'S OPERATIONAL SCHEDULE AND PRODUCER PRICES, 1977/78 - 80/81
(₦ Per Ton unless Stated Otherwise)

	Cocoa	Palm Oil		Palm Kernels	Rubber		Groundnuts	Seed Cotton
		Special	Technical		Latex	Processed		
1977/78								
Operational Expenses	167.8	118.0	118.0	84.0	182.5	-	111.6	198.1
Producer Prices	1030.0	355.0	325.0	150.0	365.0	-	275.0	330.0
Cost Price Ratio[a/] (%)	16.3	33.2	36.3	56.0	50.0	-	40.6	60.0
1978/79								
Operational Expenses	367.8	118.0	118.0	128.3	392.5	392.5	111.6	198.1
Producer Prices	1030.0	355.0	325.0	150.0	365.0	575.0	290.0	330.0
Cost Price Ratio[a/] (%)	35.1	33.2	36.3	85.5	107.5	68.3	38.5	60.0
1979/80								
Operational Expenses	383.6	125.9	125.9	136.5	402.3	402.3	136.8	211.4
Producer Price	1200.0	450.0	400.0	180.0	420.0	690.0	350.0	330.0
Cost Price Ratio	32.0	28.0	31.5	75.8	45.8	58.3	39.1	64.1
1980/81								
Operational Expenses	389.6	125.9	125.9	154.5	402.3	402.3	136.7	211.4
Producer Price	1300.0	495.0	440.0	200.0	485.0	795.0	420.0	400.0
Cost Price Ratio[a/] (%)	30.0	25.4	28.6	77.3	82.9	50.6	32.5	52.9
Growth Rates(1977-80)%								
Operational Expenses	23.4	1.6	1.6	16.5	21.8	0.8[b/]	5.2	1.6
Producer Price	6.0	8.7	7.9	7.5	7.4	11.4[b/]	11.2	4.9
Cost Price Ratio[a/]	16.5	-6.5	-5.8	8.4	13.5	-9.5[b/]	-5.4	-3.1

a/ Operational Expenses ÷ producer price x 100.

b/ Growth rates for 1978/79 - 80/81.

Source: Data provided by the Nigerian Commodity Boards.

Table 11 : INDEX OF MANUFACTURING PRODUCTION

(Base: 1972 = 100; Weights: 1972 Value Added)

	Weights	1971	1972	1973	1974	1975	1976	1977	1978	1979 a/	1980 b/	Growth Rates 1971-80 %
Vegetable Oil	6.2	118.5	100.0	151.2	43.8	35.7	24.4	4.8	15.4	16.3	12.5	-22.1
Sugar	2.6	112.4	100.0	98.6	106.5	125.8	88.7	123.2	111.8	116.2	122.2	0.9
Sugar Confectionery	4.5	61.2	100.0	101.0	86.9	118.4	127.1	207.3	201.6	199.4	210.7	14.7
Soft Drinks	5.6	76.7	100.0	161.5	154.0	224.9	322.1	303.5	332.2	433.5	486.3	22.8
Beer (including Stout)	28.2	84.6	100.0	130.5	148.4	178.5	191.0	185.6	285.2	310.8	364.3	17.6
Cigarettes	20.3	95.3	100.0	89.7	96.7	107.0	128.3	122.0	129.0	117.3	116.8	2.3
Cotton Textiles	24.4	120.3	100.0	127.3	118.8	144.9	161.0	172.9	167.1	184.2	196.2	5.6
Other Textiles	4.5	45.3	100.0	133.5	393.7	611.0	1051.8	964.7	1129.3	1297.1	1412.9	46.6
Footwear	1.6	109.9	100.0	85.0	111.4	122.6	110.0	123.5	119.3	128.8	127.9	1.7
Paint & Allied Products	1.8	92.0	100.0	122.2	113.8	151.7	180.2	241.8	280.3	274.6	316.0	14.7
Soap and Detergent	12.6	88.5	100.0	161.3	168.6	177.9	228.1	328.4	362.5	325.5	340.3	16.1
Refined Petroleum Products	4.8	45.5	100.0	127.0	124.4	105.4	128.0	123.6	124.5	150.6	189.3	17.2
Other Petroleum Products	17.0	95.0	100.0	118.7	40.6	160.8	84.9	86.6	74.6	93.1	119.9	2.6
Pharmaceutical	1.8	109.7	100.0	141.2	84.9	148.3	239.8	186.5	352.9	227.2	238.7	9.0
Rubber	1.1	117.2	100.0	78.5	68.3	140.1	99.6	109.3	122.6	112.6	113.8	-0.3
Cement	6.0	65.8	100.0	112.5	108.7	115.6	115.4	117.1	139.6	161.9	162.0	10.5
Tin Metal	1.4	105.1	100.0	85.5	79.2	161.4	54.3	47.4	42.6	40.9	40.0	-10.2
Roofing Sheets	3.5	90.9	100.0	114.2	82.3	137.9	161.2	214.7	191.7	218.6	250.0	11.9
Vehicle Assembly	0.7	120.3	100.0	118.4	130.7	302.2	698.6	1097.3	992.7	1138.9	1363.9	31.0
Radio, Changers, T.V. Assem.	1.3	135.3	100.0	97.9	66.2	108.0	119.1	128.6	95.7	187.4	240.8	6.6
TOTAL	150.2	92.8	100.0	123.6	119.5	147.7	182.2	193.5	221.4	237.5	263.6	12.3

a/ Revised

b/ Estimates

Source: Central Bank of Nigeria, Annual Reports, December 1977 and 1979

Table 12: INDUSTRIES RECEIVING NEGATIVE NET EFFECTIVE PROTECTION IN 1977

Industry	Nominal Rate of Protection (%)	Net Effective Rate of Protection Assuming 35 percent Overvaluation of the Naira (%)	Net Effective Rate of Protection Assuming 50 percent Overvaluation of the Naira
A. Nominal Rate of Protection < 35%			
1) Meat products	0	-22	-31
2) Dairy products	4	-25	-37
3) Groundnut oil and cake	-2	-174	-79
4) Cottonseed oil and cake	18	-1	-11
5) Palm oil milling* (doubtful)	0*	-25*	-35
6) Sugar factories and refineries	8	-13	-23
7) Ovaltine substitutes, etc.	23	-1	-19
8) Tea and coffee	16	-10	-23
9) Prepared animal feeds	10	-29	-80
10) Soft drinks and carbonated waters	22	-4	-13
11) Cotton yarn	5	-20	-35
12) Grey baft (possibly)	10 ∽ 30	-16 ∽ +13	-20 (average)
13) Finished textile fabrics (possibly)	14 ∽ 40	-22.3∽+130	-43 (average)
14) Wooden fixtures and furniture (possibly)	35 ∽ 55	-12 ∽ +10	-38 (average)
15) Drugs and Medicine	8	-15	-34
16) Cement	0	-30	-41
17) Cotton wool and gauze	17	-5	-55
18) Matchets	8	-16	-33
19) Natural rubber	0	-25	-35
20) Tin smelting	0	-23	-32
21) Agricultural machinery and equipment	0	-25	-35
22) Industrial machinery and equipment	11	-22	-31
B. Nominal Rate of Protection < 50% (not listed in A.)			
1) Flour	10	10	-15
2) Bakery products	40	26	-38
3) Beer breweries	27	6	-10
4) Knitting-fishing nets	35	25	-9
5) Wearing apparel except footwear	44	8	-9
6) Tanneries and leather finishing	8	8	--6
7) Sawmills, planing and other wood mills	26 - 33	13 - 28	-2 (average)
8) Fertilizers	21	6	-5
9) Disinfectants, insecticides and fungicides	12	1	-14
10) Tire and tube industries	22	2	-13
11) Bricks and tiles	17	4	-11
12) Concrete products: asbestos roofing sheets and pipes	18	2	-12
13) Cast iron products	45	20	-1
14) Aluminum sheets, coils and circles	10	0	-1
15) Metal furniture and fixtures without "approved user status"	30	18	-2
16) Structural metal products -			
Iron rods	21	8	-7
Trailers and tankers	18	15	-9
Windows and doors	20	11	-6
17) Motorcycles	15	16	-4

* According to Bertrand and Robertson, however, the oil palm subsector report suggests a positive and large net effective protection for oil palm milling in recent years.

Source: Bertrand, J. and Robertson, M., "An Analysis of Industrial Incentives and Location in Nigeria", World Bank, 1978.

Table 13: INDUSTRIES RECEIVING NEGATIVE NET EFFECTIVE RATE OF PROTECTION IN 1979/80 ASSUMING 35 PERCENT OVERVALUATION OF NAIRA

Industry	Nominal Rate of Protection (%)	Net Effective Rate of Protection (%)
Meat and Poultry Products		
- Meat Products**	10	-20.6
Dairy Products		
- Tinned Milk	20	-25.0
- Assorted Dairy Products (Mainly yogurt and flavored drinks)	15	-16.5
Vegetable and Oil Milling		
- Groundnut oil	14.5	-23.5
- Cottonseed oil	9.7	-1.0
- Palm oil	0	-33.3
Sugar Cubing**	34	-40.0
Cocoa Butter and Cake	2	-52.7
Beer and Stout*	25 ~ 40	-6.1 ~ 15.6
Soft Drinks**	20 ~ 35	-18.9 ~ 3.4
Spinning, Weaving and Finished Textiles		
- Sewing Thread**	10 ~ 20	-26.8 ~ 16.3
- Yarn from synthetic fiber	10 ~ 20	-20.1 ~ 6.7
- Gray baft*	20 ~ 40	-2.1 ~ 4.0
Leather Belts	35	-2.8
Lumber	0	-30.1
Toilet and Tissue Paper**	25	-46.6
Industrial Gases	10 ~ 20	-32.4 ~ -18.4
Fertilizers	0 ~ 10	-62.4 ~ 26.2
Paints**	25 ~ 33 1/3	-3.4 ~ 36.0
Drugs and Medicine	8	-36.1
Vaseline Products	20	-8.8
Blended Lubricating Oils and	2.1	-26.3
Tires and Tubes	20 ~ 30	-15.9 ~ 13.0
Other Rubber Products		
- Natural rubber, fully integrated	0	-25.4
- Natural rubber, non-integrated	0	-53.7
Bricks and Tiles		
- Terra 220 tiles	12	-26.1
- Structural clay products	20 ~ 33 1/3	-8.4 ~ 4.3
Cement	9	-31.1
Concrete-Asbestos Roofing Sheets and Pipes**	18 ~ 25	-3.4 ~ 8.3
Iron Rods	20	-12.7
Aluminum Sheets, Coils, and Circles	5 ~ 10	-23.0 ~ 8.2
Matchets	8	-31.7
Trailers, tippers, and Tanks**	15 ~ 20	-14.1 ~ 3.2
Presses and Crushes	0	-38.6
Tape Saws, Block Molding, Machines, etc.	5	-22.7
Insulated Electric Cable**	10 ~ 30	-28.1 ~ 10.1
Tugs, Barges and Small Boats	5	-24.6
Ball Point Pens	30	-2.3

* Under import ban
**Requires import license.

Source: James W. Robertson, "The Structure of Industrial Incentives in Nigeria, 1979-80", World Bank, September 15, 1981.

Table 14: INDUSTRIES RECEIVING POSITIVE NET EFFECTIVE RATE OF PROTECTION, ASSUMING 35% CURRENCY OVERVALUATION, 1977

Industry	Nominal Rate of Protection (%)	Net Effective Rate of Protection (%) Assuming 35 percent Exchange Rate Overvaluation	Net Effective Rate of Protection (%) Assuming 50 percent Exchange Rate Overvaluation
A. Nominal Rate of Protection < 30%			
1) Grain mill products	10	10	-15
2) Beer and stout*	27	6	-10
3) Grey baft	10 ∽ 30	-16 ∽ 13	-20 (average)
4) Yarn from synthetic fiber	22 ∽ 45	53 ∽ 800	102 (average)
5) Waste cotton blankets	23	15	0
6) Tanneries and leather finishing*	8	8	-6
7) Sawmills and other wood mills	26 ∽ 33	13 ∽ 28	-2 (average)
8) Fertilizers	21	6	-5
9) Pesticides	12	1	-14
10) Paints, etc.*	28	19	1
11) Tire and tube industries	22	2.2	-13
12) Plastic shoes	15	269	192
13) Plastic sheeting and imitation leather	23	189	119
14) Mirrors	28	75	50
15) Bricks and tiles	17	4	-11
16) Concrete products*	18	2	-12
17) Metal containers	25	17	
18) Metal furniture and fixtures			
- with Approved User Status	30	69	42
- without Approved User Status	30	18	-2
19) Iron rods	21	8	-7
20) Trailers and tankers	18	15	-0
21) Windows and doors	20	11	-6
22) Enamelware	19	32	6
23) Galvanized iron sheets*	16	39	14
24) Electrical cables	20	60	20
25) Shipbuilding and repairing - small boats	28	18	5
26) Motor vehicles			
- engine capacity 1800 ccs	25	44	19
27) Motorcycles	15	16	-4
28) Ink	20	109	20
B. 30 ≤ Nominal Rate of Protection ≤ 50%			
1) Bakery products*	40	26	-38
2) Chocolate confectionary*	40	79	62
3) Cigarettes	45	18	2
4) Finished textile fabrics	14 ∽ 40	-22.3 ∽ 130	-43 (average)
5) Yarn from synthetic fiber	22 ∽ 45	53 ∽ 800	102 (average)
6) Tarpaulins	34	137	60
7) Fishing nets	35	25	-9
8) Knitted fabrics*	35	158	106
9) Wearing apparel except footwear	44	8	-9
10) Leather products and substitutes	35 - 45	21 - 74	23 (average)
11) Sawmills and other woodmills	26 ∽ 33	13 ∽ 28	-2 (average)
12) Containers, boxes of paper and paperboard	45	35	11
13) Pulp, paper and paperboard	40	33	9
14) Electrodes	35	127	68
15) Soap, detergents, perfumes, and cosmetics*	43	39	15
16) Glass containers	42	31	8
17) Cast iron products*	45	20	-1
18) Metal containers	40	46	25
19) Television, radio, communication equipment	45	47	23
20) Electrical equipment and housewares	35	290	199
21) Motor vehicles			
- engine capacity 1800-2000 ccs	40	50	27
22) Ballpoint pens	35	16	0
C. Nominal Rate of Protection > 50%			
1) Spirits	58	40	13
2) Cordage	62	n.a.	n.a.
3) Leather footwear	51	83	54
4) Wooden furniture and fixtures*	35 - 55	-12 - 10	-38 (average)
5) Foam cushions and mattresses	55	54	25
6) Ceramic tableware	66	56	28

*Industries with excess profits (in 1977) thought sufficient to permit absorption of losses from a removal of all market distortions.

a/ NRP = Nominal Rate of Protection

Source: Bertrand, J. and Robertson, M., "An Analysis of Industrial Incentives and Location in Nigeria", World Bank, 1978.

Table 15 : BASIC INDUSTRIAL INDICATORS FOR SELECTED NIGERIAN MANUFACTURING ESTABLISHMENTS[1a]

(1973 - 1977)

	Number of Establishments (1)	Number Employed (2)	Wages & Salaries (N'000) (3)	Gross Output (N'000) (4)	Industrial Costs (N'000) (5)	Value Added (N'000) (6)	Net Capital Expenditure (N'000) (7)	Non-industrial Costs (N'000) (8)	Value Added Content of Output (%) (9)=(6)÷(4)	Wage Content of Value Added (%) (10)=(3)÷(6)	Value Added per Worker (N'000) (11)=(6)÷(2)	Investment Output Ratio (%) (12)=(7)÷(5)	Average Wages & Salaries (N'000) (13)=(3)÷(2)
Vegetable Oil Milling													
1973	46	6270	2733	61511	46194	15317	1879	9103	25	18	2443	12	436
1974	35	7285	2243	49748	28992	20756	-138	4119	42	11	2849	*	308
1975	46	25826	9621	47460	29070	18570	17532	5449	39	52	719	94	373
1976	43	16878	8838	65401	45548	19853	9261	2931	30	45	1176	47	524
1977	47	23817	10367	85109	61517	23591	6263	3106	28	44	991	27	436
Rate of Change (73-77)	0.4	30.5	30.5	6.7	5.9	9.1	27.1	-19.4	2.3	19.6	-16.5	17.6	0.0
Textiles (Spinning & Weaving)													
1973	73	39364	22196	159150	96825	62297	16327	32868	39	36	1583	26	564
1974	70	39829	27955	209803	119593	90210	7045	33645	43	31	2265	8	702
1975[2]	68	50241	54072	378063	211329	166734	64434	42138	44	32	3319	39	1076
1976	41	55009	65263	421207	285417	135790	64008	19443	32	48	2469	47	1186
1977	57	64961	85426	511959	285158	226441	71791	55109	44	38	3486	32	1321
Rate of Change (73-77)	-4.9	10.6	30.5	26.5	24.1	29.5	34.2	10.9	2.4	1.1	17.1	4.2	18.6
Made-up Textile Goods													
1973	15	3007	1614	11593	8050	3544	1818	2567	31	46	1179	51	537
1974	14	4425	3267	28017	18678	9339	3412	3775	33	35	2111	36	738
1975	18	4641	3904	26148	14388	11760	3294	4897	45	33	2534	28	841
1976	15	3926	3761	26997	14545	12452	3807	3457	46	30	3172	31	958
1977	17	7006	6662	43683	22106	21577	19194	7386	49	31	3080	89	951
Rate of Change (73-77)	2.5	18.4	32.5	30.5	22.5	43.5	61.0	23.1	9.6	-7.6	21.5	11.8	12.1
Leather Footwear													
1973	18	3981	3645	20208	11978	8230	1683	2502	41	44	2067	8	916
1974	19	4119	4203	23474	10906	12568	620	3555	54	33	3051	5	1020
1975	20	4208	5202	44459	14726	29733	1691	20508	67	17	7066	6	1236
1976	18	4528	6891	30772	15047	15725	2008	7345	51	44	3473	13	1522
1977	17	4249	7172	31545	15317	16229	1898	10215	51	44	3819	12	1688
Rate of Change (73-77)	-1.1	1.3	14.5	9.4	5.0	14.6	2.4	32.1	4.4	0.0	13.0	8.5	13.0
Saw Milling													
1973	116	5424	5420	22136	10455	11680	2995	2289	53	46	2153	26	999
1974	108	9612	6346	24432	11727	12705	1085	6498	52	50	1322	9	660
1975	139	12114	9711	39124	17027	22097	16311	4190	56	44	1824	74	802
1976	185	16875	17238	45232	30971	14259	20465	138792	32	121	845	144	1022
1977	166	19945	19045	75796	35685	40111	20354	7748	53	47	2011	51	905
Rate of Change (73-77)	7.5	29.8	28.8	28.0	27.9	28.0	46.5	27.5	0.0	0.4	-1.4	14.4	2.0

Table 15 (con't): BASIC INDUSTRIAL INDICATORS FOR SELECTED NIGERIAN MANUFACTURING ESTABLISHMENTS[a]

(1973 - 1977)

	Number of Establishments (1)	Number Employed (2)	Wages & Salaries (N'000) (3)	Gross Output (N'000) (4)	Industrial Costs (N'000) (5)	Value Added (N'000) (6)	Net Capital Expenditure (N'000) (7)	Non-indus-Trial Costs (N'000) (8)	Value Added Content of Output (%) (9)=(6)÷(4)	Wage Content of Value Added (%) (10)=(3)÷(6)	Value Added per worker (N'000) (11)=(6)÷(2)	Investment Output Ratio (%) (12)=(7)÷(5)	Average Wages & (N'000) (13)=(3)÷(2)
Other Wood & Cork Products													
1973	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1974	3	50	26	149	6	143	46	2	96	18	2860	32	520
1975	11	1616	1671	25822	17085	8737	2225	1680	34	19	540/	25	1034
1976	5	456	492	4513	2346	2167	1171	709	48	23	4752	54	1079
1977	5	474	538	3688	1803	1885	1105	565	51	29	3977	59	1135
Rate of Change (74-77)	13.6	75.2	135.0	150.0	**	90.0	168.0	**	17.1	12.7	8.6	16.5	21.5
Wooden Fixtures & Furniture													
1973	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1974	84	5066	2846	13824	7875	5948	507	1826	43	48	1174	9	582
1975	126	7787	5603	27318	14076	13243	5836	2343	48	42	1701	44	720
1976	117	7831	5212	49120	27187	21933	13488	3337	45	24	2801	61	666
1977	121	8307	8007	56301	31873	24426	14594	6115	43	33	2940	60	964
Rate of Change (74-77)	9.6	13.1	29.5	42.0	41.9	42.8	188.0	35.1	0.0	-8.9	25.9	61.0	14.5
Containers & Paper Board													
1973	10	1763	1825	15816	10007	5809	231	1754	37	31	3295	4	1035
1974	11	1852	2554	25748	16076	9658	475	2190	38	26	5215	5	1379
1975	14	2121	3601	32671	19274	13397	1970	2956	41	27	6316	15	1698
1976	24	3523	4628	48900	29131	19769	3025	3807	40	23	5611	15	1314
1977	14	2941	6044	59089	35697	23392	4352	7377	40	26	7954	19	2055
Rate of Change (73-77)	7.0	11.1	27.0	32.0	28.9	32.0	80.0	33.0	1.6	-3.5	19.3	36.5	14.7
Paper Products													
1973	8	1605	1459	17525	10337	7188	909	1826	41	20	4479	13	909
1974	8	1947	2200	27548	18342	4207	555	3839	33	24	4729	6	1130
1975	11	2993	5218	49512	33128	16384	3310	5576	33	32	5462	20	1743
1976	10	3110	4318	51121	31422	19699	13008	386	39	222	6334	66	1388
1977	12	3412	5574	68498	41561	26935	14631	10160	39	21	7894	54	1634
Rate of Change (73-77)	8.5	16.3	31.0	32.0	32.0	30.5	74.0	41.0	-1.0	1.0	12.0	33.0	12.4
Printing & Publishing													
1973	68	8298	9308	35293	16523	18771	3496	4002	53	50	2262	19	1122
1974	76	9147	11373	46283	21148	21535	5363	5071	50	53	2354	25	1243
1975	98	12396	13884	69207	27632	41574	83981	5619	60	33	3354	202	1120
1976	97	12455	27659	101077	37115	63962	91677	1916	63	43	5135	143	2221
1977	99	13387	22055	114321	43150	71171	97754	5743	62	31	5316	137	1647
Rate of Change (73-77)	7.8	10.0	18.8	26.5	21.5	30.5	94.0	7.5	3.1	-9.1	18.8	48.5	8.0
Types & Tubes													
1973	9	2274	2883	24522	11376	13146	1166	5876	54	22	5781	9	1268
1974	9	2646	3776	33516	12794	20721	147	3562	62	18	7831	*	1427
1975	7	1772	3101	26780	9653	17127	265	1567	64	18	9665	2	1750
1976	9	2467	5839	41702	18649	23053	3831	2481	55	25	9345	17	2367
1977	9	2517	4678	46479	9769	36709	2314	5584	79	13	14584	6	1859
Rate of Change (73-77)	0.0	2.0	10.2	13.6	-3.0	22.9	14.7	-1.0	7.9	-10.0	20.5	-7.8	8.0

Table 15 (con't): BASIC INDUSTRIAL INDICATORS FOR SELECTED NIGERIAN MANUFACTURING ESTABLISHMENTS[a]

	Number of Establishments	Number Employed	Wages & Salaries (₦'000)	Gross[b] Output (₦'000)	Industrial[c] Costs (₦'000)	Value[d] Added (₦'000)	Net Capital[e] Expenditure (₦'000)	Non-industrial[f] Costs (₦'000)	Value Added Content of Output (%)	Wage Content & Value Added (%)	Average Productivity of Labor (₦)	Investment Output Ratio (%)	Average Wages & Salaries (₦'000)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)=(6)÷(4)	(10)=(3)÷(6)	(11)=(6)÷(2)	(12)=(7)÷(6)	(13)=(3)÷(2
Cement													
1973	5	2861	2989	30744	9636	21107	19021	15671	69	14	7377	90	1045
1974	5	2796	3913	40174	11867	28307	10478	5007	70	14	10124	37	1400
1975	5	2158	2380	14017	5384	8634	14033	2556	62	28	4001	163	1103
1976	5	3621	6043	54373	14460	39913	44251	2475	73	15	11023	111	1669
1977	8	5482	7090	58481	16381	42100	41343	4516	72	17	7680	98	1293
Rate of Change (73-77)	9.9	13.9	18.9	13.7	11.2	14.8	16.8	-21.9	0.9	4.0	0.8	1.7	4.3
Concrete Products													
1973	22	2877	1717	12008	6184	5825	1281	1495	49	29	2025	22	597
1974	28	3452	2452	19986	8461	11525	-39	3474	58	21	3339	*	710
1975[2]	44	5856	5588	41536	18977	22559	5683	5927	54	25	3852	25	954
1976	54	5946	5625	50215	22596	27619	12816	3517	55	20	4645	46	946
1977	67	7301	9565	68070	33379	34691	6859	4081	51	28	4752	20	1310
Rate of Change (73-77)	25.0	20.5	27.2	41.5	40.0	42.8	39.9	22.5	0.8	-0.7	18.6	-2.0	17.0
Iron, Steel & Non-Ferrous Metals													
1973	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1974	18	2462	2185	56682	38125	18556	844	2657	33	12	7537	5	778
1975	6	720	822	29007	4714	24293	956	959	84	3	33740	4	1142
1976	10	2289	3139	57940	24779	33161	1352	3351	57	9	14487	4	1371
1977	11	2804	3004	64591	30063	37028	72	2999	57	8	13205	*	1071
Rate of Change (73-77)	-11.6	3.3	8.3	3.3	-5.7	18.9	-45.9	3.1	14.6	-9.7	15.1	-	8.3
Motor Vehicle Assembly													
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	12	1966	1530	47472	27172	20300	224	1953	43	8	10326	1	778
1975	11	3603	3759	188506	136303	52203	4895	3627	28	7	14489	9	1043
1976	16	10019	10376	375150	303870	71820	5732	53048	19	14	7168	8	1036
1977	17	8914	18458	533662	463199	65473	19010	51623	12	28	7345	29	2071
Rate of Change (73-77)	9.1	46.0	87.0	84.0	101.0	34.0	**	190.0	-27.5	37.0	-8.2	190.0	28.5
Other Manufacturings													
1973	618	84288	61977	823930	417015	407443	63272	210411	49	15	4834	16	735
1974	545	80611	70931	875609	446140	429471	40537	153953	49	17	5328	9	880
1975	666	106191	122408	1571461	852991	718289	137922	221652	46	17	6764	19	1153
1976	627	122752	177521	2391092	1161217	1229335	156514	148156	51	14	10015	13	1446
1977	751	148923	226331	2560819	1371611	1194689	360379	379868	47	19	8022	30	1520
Rate of Change (73-77)	4.0	12.0	29.5	25.5	26.2	24.0	41.0	12.5	-0.9	4.8	10.6	13.4	15.6
Total													
1973	1008	162012	117766	1234936	654580	580357	113078	290364	47	20	3582	19	727
1974	1045	175299	147800	1518851	787902	820949	71161	235126	47	21	4113	10	843
1975	1290	244243	250545	2611091	1425757	1185334	364338	333644	45	21	4853	5	1026
1976	1276	271685	352843	3814810	2064300	1750510	446414	397151	46	20	6443	26	1299
1977	1418	324440	440016	4382091	2498269	1886448	681913	562195	43	23	5814	36	1356
Rate of Change (73-77)	7.1	14.9	30.1	28.5	30.9	26.5	43.5	14.1	-1.8	2.8	10.2	13.6	13.3

* Neglible.
** More than 500 percent.

a/ Data refer to manufacturing establishments employing ten or more persons.

b/ Gross output is the value of sales products, plus receipts for resale of goods sold in the same condition as when bought, value of contract work, receipt for maintenance and repairs, value of assets produced for own use or minus the value of inventory changes in finish goods and work in progress.

c/ Industrial costs consist of costs of materials, fuel, electricity, goods sold in the same condition as when bought, contract work done by others on own materials and repairs and maintenance work done by others.

d/ Value-added means census value added and it is the difference between gross output and industrial costs.

e/ Net capital expenditure is the cost of new and used capital equipments purchased by establishments during the year under survey plus the value of assets produced by own employees, less proceeds from the sale of any capital assets already held by the establishment.

f/ Non-industrial costs are the incidental expenses which are not part of costs of the raw materials, e.g. administrative expenses.

Source: Federal Office of Statistics

Table 16: REAL WAGE TRENDS IN NIGERIAN MANUFACTURING, 1962-1981

(1972 = 100)

Year	Money Wages Average Manufacturing Wage/Earnings All Employees	Real Average Manufacturing Wage (= average earnings per worker divided by cost of living index)	Government Minimum Money Wage	Government Minimum Real Wage	"Real Labor Cost" in Manufactureing (= average earnings per worker divided by manufacturing price index)
1962	58	89	43	66	-
1963	63	100	43	68	-
1964	67	105	56	88	-
1965	69	106	56	86	95
1966	79	111	56	79	100
1967	82	115	56	79	107
1968	83	124	78	116	112
1969	80	107	78	104	100
1970	83	101	78	107	94
1971	96	97	88	89	94
1972	100	100	100	100	100
1973	111	106	100	95	120
1974	131	106	128	104	134
1975	160	91	223	127	129
1976	200	91	231	105	127
1977	-	-	231	93	-
1978	-	-	248	80	-
1979	-	-	253	73	-
1980 /a	-	-	280	98	-
1981 /a	-	-	485	109	-

/a Estimate.

Source: World Bank, Nigeria Basic Economic Report No. 3341-UNI of August 17, 1981.

Table 17 : REVENUE FROM CUSTOM AND EXCISE DUTIES FOR SELECTED COMMODITIES
(₦ thousands)

	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80 /a	1980 /b	1981 /c
Import Duties	364366	705058	761639	1059028	1263275	903261	639803	1016275
Live Animals	2190	5541	5268	12858	15700	46293	13500	22500
Vegetable Products	3840	7710	14585	29204	23600	38273	18749	31250
Animal & Vegetable Fats and Oils	1413	1902	5626	10811	13700	17997	10499	17500
Prepared Foodstuffs	15071	22830	28217	46515	53600	72457	18000	30000
Beverage	7267	34683	39876	39872	67600	3510	7499 /d	12500 /d
Tobacco	3395	1802	2749	2286	5500	1052	14286	2713
Mineral Fuels, Lubricants, Oil and Bituminous	16778	16112	4357	4114	28700	4685	11250	18750
Chemicals	21528	39514	41488	61474	65600	74356	45000	25000
Resins, Plastic & Rubber	12319	25159	12989	31801	28700	36946	14999	25000
Leather & Travelling Goods	2474	4413	3959	1637	5000	2814	149	250
Wood	14987	4431	5363	14059	15600	8850	7799	13000
Paper Making Materials	17227	128	90	98	200	170	374	625
Paper, Paper Board and Prints	12049	15256	17401	24968	30600	19103	14999	25000
Textiles	41939	115524	102646	75171	135700	1499	33595	2500
Footwear & Headgear	3986	11906	18032	29450	25600	4164	374	625
Base Metals	50166	96690	90623	134144	115800	112662	88499	147500
Machinery & Equipments	48333	110717	140332	234324	208600	136461	149999	250000
Vehicles	44528	116851	144515	176080	218375	131524	135000	225000
Furniture	2022	11357	15733	17240	23600	13632	-	-
Others NES	42854	62532	67790	112922	181500	156813	55233	166562
Export Duties	7001	4244	6776	4531	9175	456	1708	2848
Animals, Birds & Reptiles	147	1145	8	4	1000	23	37	63
Banana	1641	4	-	-	-	-	-	-
Hides and Skins	1147	232	261	289	1000	146	45	75
Rubber	347	4	6	*	10	2	-	-
Scrap Metals	35	34	64	27	100	37	118	198
Slag, Tin	52	4	1	3	15	219	4	6
Wood and Timber	254	138	31	3	50	-	4	6
Others NES	3378	2683	6405	4205	7000	28	1500	2500
Excise Duties	149032	112246	163589	179398	302625	318578	406163	854448
Tobacco	5282	10665	19199	19226	31050	7926	22501	37501
Beverage	33278	30084	38264	54131	92800	99635	90000	150000
Oils and Gas	16604	38790	47739	56700	78600	4785	90000	200000
Cereal Flour	297	-	*	*	*	-	-	-
Batteries (Motor Vehicles)	13445	1399	16	87	500	1641	1500	2500
Carpets	3712	11936	332	105	3000	3089	7500	12500
Iron Netting and Fencing	653	-	153	*	-	10	-	-
Building Materials	2994	-	25	*	5000	46	-	-
Ball Point Pens	9408	-	-	-	-	180	375	625
Liquified Petroleum Gas	1762	1057	21136	123	5000	1184	3750	6250
Textiles	10421	307	1169	21843	23800	34986	22500	37500
Food Preparations	5219	-	10110	2929	18600	2869	-	-
Plastic Wares	37	-	1897	2731	3000	2869	750	1050
Sewing Machines	390	2928	280	364	2000	633	1500	2500
Tires	556	-	2	*	2000	2402	1875	3125
Others NES	44974	15080	24318	21159	37275	156323	163912	400897
Fees	1296	1932	2110	4893	5500	11458	8325	13875
TOTAL	521695	823480	934114	1247850	1580575	1233753	1055999	1887446

NOTE: Components may not add up due to rounding.

* Negligible
/a Actual revenue.
/b Approved estimates.
/c Estimates.
/d Wine and spirits only.

Source: Custom and Excise Board, Federal Ministry of Finance.

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