The Mineral Industry of Nigeria

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The hydrocarbon sector dominated the Nigerian economy. According to data compiled by the U.S. Energy Information Administration (2005), Nigeria's production of crude petroleum and condensate exceeded that of Kuwait and the United Arab Emirates in 2004, which moved Nigeria up to the position of ninth leading producer in the world (by volume). Nigeria, which was a member of the Organization of the Petroleum Exporting Countries (OPEC), remained Africa's leading oil producer. In addition to hydrocarbons, artisanal miners and companies produced columbium (niobium) and tantalum, gold, lead, tin, and zinc ores; copper, lead, steel, and tin; and industrial mineral commodities such as barite, cement, clays, coal, feldspar, gemstones, gypsum, phosphate rock, and stone.

In 2004, hydrocarbons accounted for about 34% of the country's gross domestic product (GDP). Revenues of $25.1 billion, which were attributed to natural gas and oil, accounted for 86% of total Government revenues. Controversy continued to cloud the Government's distribution of oil income (Central Bank of Nigeria, 2005, p. 127, 140; Adeshida and Aziken, 2004§[1]; Alabi, Okafor, and Bassey, 2004§; Akwa Ibom State Government, undated§).

Real GDP growth was 6% in 2004. The GDP based on purchasing power parity was estimated to be about $159.8 billion, and the GDP per capita based on purchasing power parity was estimated to be about $1,120. Despite the nation's significant oil income, Nigeria was 162d on a list of 178 countries ranked by GDP per capita by the International Monetary Fund. Nigeria's GDP per capita rank was skewed by its position as the most populous country in Africa. Estimates of Nigeria's population in 2004 varied from about 126 million to about 143 million, which was about as much as the combined population of the next two most populous countries in Africa (Egypt and the Democratic Republic of the Congo). When compared to other countries on a list of the world's top 10 leading oil-producing nations, only China, Russia, and the United States had larger populations than Nigeria (U.S. Energy Information Administration, 2005; International Monetary Fund, 2005§; U.S. Central Intelligence Agency, 2005§).

Government Policies and Programs

Under the Mining and Minerals Decree No. 34 of 1999, the Federal Government holds all mineral rights. In February 2004, the Government launched the Nigerian Extractive Industries Transparency Initiative in conjunction with the international Extractive Industries Transparency Initiative. The Nigerian Extractive Industries Transparency Initiative Bill, which was drafted in 2004, would require annual revenue and tax audits of companies that participate in the mining or petroleum sectors.

The Government began a new economic reform program in 2004. Proposals under the National Economic Empowerment and Development Strategy (NEEDS) included the diversification of the national economy and the deregulation, privatization, and promotion of the industrial sector. Other NEEDS goals were to improve the enforcement of contracts; to improve the power generation, telecommunication, and transportation infrastructure; to improve the security of lives and property; to improve access to finance; and to increase local processing of minerals and exports of processed mineral commodities. The NEEDS also proposed to reduce further the high cost of project finance, which adversely affected domestic companies without recourse to international funding. The prime interest rate in Nigeria dropped to about 19.2% in 2004 from 26% in 2001, which was significantly higher than the average prime rate of about 4.5% available in the United States in 2004 (Nigerian National Planning Commission, 2004, p. 9-11, 76-78; Katz and others, 2005, p. 91; Board of Governors of the Federal Reserve System, 2005§).

The NEEDS identified several constraints on the development of the nation's solid mineral sector, which included the dearth of proven mineral reserves, illegal mining, the lack of infrastructure, the lack of mineral production and processing capacity, the smuggling of minerals out of the country, the uncompetitive legal and regulatory structure, and unfavorable domestic fiscal policies. The Government proposed to address these problems by enforcing existing regulations that impact artisanal and small mining operations and by completing a national register of mining leases, licenses, and rights. The Government also proposed to authorize the Nigerian Geological Survey Agency to regulate the solid mineral sector. Other proposals made in the NEEDS included the completion of a comprehensive geologic survey of the 923,768-square-kilometer nation, the creation of support services and technical assistance programs for artisanal and small-scale mining operations, the establishment of licensed mineral-buying centers, the promotion of environmental awareness, the promotion of mining cooperatives, and a review of mining legislation (Nigerian National Planning Commission, 2004, p. 77-79).

In October, the Government allocated $165,000 to a program that would fund mineral processing assistance, mining skills development, and other training for artisanal and small-scale miners. In December, the World Bank Group approved a $120 million Sustainable Management of Mineral Resources Project that would fund many of the initiatives proposed by the NEEDS.

To infuse new funding into moribund Government-owned mineral operations and to combat the international reputation for corruption, inefficiency, and political patronage that many of the public enterprises in Nigeria had acquired, the Government continued to attempt to commercialize state-owned companies (Bureau of Public Enterprises, 2003§). The Federal Government's Bureau of Public Enterprises (BPE), which was part of the National Council on Privatisation, managed the process through which mineral commodity production and processing companies were privatized. The short-term success

[1]References that include a section mark (§) are found in the Internet References Cited section.

of the privatization program was limited owing to the continued financial, legal, and political difficulties experienced by the domestic and international companies and consortia that had been selected by the BPE to acquire state-owned enterprises in 2003 and 2004 (Gabriel, 2004§; Nigerianewsnow.com, 2004§; Ige, 2005§; Oduniyi, 2005§).

The Pensions Act of June 2004 established a new national pension program that required both private sector employees and employers to contribute a minimum of 7.5% of an employee's emoluments (basic salary plus housing and transportation allowances) to the fund. Employers also were required to maintain life insurance policies for each employee in an amount no less than three times the employee's annual compensation. Development of applicable pension regulations was underway (Katz and others, 2005, p. 50-56).

Trade

In 2004, official oil exports, which were valued at $20.67 billion, and natural gas exports, which were valued at $2.02 billion, accounted for 96.4% of total Nigerian exports. Official crude oil exports were reported to be 741 million barrels (Mbbl), which was a 10% increase compared with oil exports in 2003. Estimates of illegal oil exports, which primarily were siphoned from crude oil pipelines in the Niger Delta, ranged from 15 million to 70 million barrels per year. Of the official crude oil exports in 2004, about 281.6 Mbbl (or about 38% of total crude oil exports) was exported to the United States, which was a 10.5% increase compared with that of 2003; 96.3 Mbbl to India, which was up from about 87.5 Mbbl in 2003; 62.2 Mbbl to Spain, which was an increase of 10.1% compared with that of 2003; about 48.2 Mbbl to France, which was a 0.1% decline compared with that of 2003; about 39.3 Mbbl to Brazil, up from a revised 26.7 Mbbl in 2003; and 36.3 Mbbl to countries in West Africa, which was a 10% increase compared with that of 2003 (Central Bank of Nigeria, 2005, p. 159, 164; Agence France-Presse, 2004§).

In 2004, imports of refined petroleum products, which were valued at $2.1 billion, accounted for 18.6% of total imports compared with 25.3% in 2003. Refined petroleum imports declined from a revised $2.65 billion in 2003 because of improved domestic refinery operations. To promote local production, the Government prohibited the importation of barite, bentonite, and kaolin. Imports of cement in bags and bulk cement in volumes of less than 10,000 metric tons (t) also were banned (Central Bank of Nigeria, 2005, p. 159; Katz and others, 2005, p. 61-62).

Commodity Review

Metals

Aluminum.—The Government and Ferrostaal AG concluded negotiations in which Ferrostaal's interest in the Aluminum Smelter Co. of Nigeria Ltd. (Alscon) declined to 7.5% from 20%. The subsequent tender of 77.5% equity in Alscon by the BPE was acquired by a consortium lead by the BFI Group Corp. of the United States. The BFI Group submitted a $1 million non-refundable bid bond, but by August, the BFI Group was disqualified by the BPE for failure to pay 10% of the $410 million purchase price within 15 working days after the receipt of the confirmation of the successful bid. The BFI Group claimed that it had not received timely notification and that the contract called for payment within 15 working days after the Share Purchase Agreement was signed. After the failure of subsequent negotiations with the BPE, the BFI Group pursued its options with the Nigerian and United States Governments (Akwaya, 2004§; Ige, 2005§).

Copper.—In 2004, Sun & Sand Industries Ltd. began to remelt copper scrap and to produce copper alloys and ingots at a plant at Ota in Ogun State.

Iron and Steel.—In 2003, the Government had awarded a 10-year contract to complete the construction of the Ajaokuta Steel Co. Ltd. (ASC) plant to a consortium managed by Solgas Energy Ltd. of the United States (initial construction of the ASC facility had begun in 1980.) The Government reportedly had agreed to pay ASC workers' salaries through yearend 2004, but in May 2004, the Government announced that it would unilaterally cut public sector iron and steel workers' salaries by more than 50% for the remainder of the year. In August 2004, workers at ASC went on strike and the Government terminated Solgas' ASC contract. The Government subsequently awarded Global Infrastructure Holdings Ltd. (a subsidiary of Ispat Industries Ltd. of India) a 10-year concession to complete and operate the ASC plant. In November, Global Infrastructure commissioned a 130,000-metric-ton-per-year (t/yr)-capacity wire rod mill to process steel billet imported from the Ukraine. In December, Global Infrastructure began steel bar production at the plant's light steel mill and initiated procedures to start up the blast furnace in 2005 (Steel Times International, 2005; Nwachuku, 2004§; Oduniyi, 2005§).

To facilitate the Government's privatization of the steel plant and rolling mill of Delta Steel Co. Ltd., the BPE began negotiations in 2004 to pay compensation to communities from which the Government appropriated land for the Delta Steel facility. The compensation was for crops destroyed in 1979 when construction of the Delta Steel facility began. In the 2004 request for bids to become the core investor of Delta Steel, BUA International Ltd. submitted the highest bid, but after initial negotiations with BUA, the BPE cancelled the tender (Thisday, 2004§).

The BPE's privatization of the National Iron Ore Mining Co. Ltd. and the Jos, the Kaduna, the Katsina, and the Oshogbo steel rolling mills proceeded fitfully in 2004. The Katsina Investment and Property Development Co. Ltd., which was a Katsina State government company formed for the bid, was the high bidder for the Katsina Steel Rolling Co. Ltd., but the National Council on Privatisation revoked the bid (Okwe and Ohu, 2004§).

New steel operations in Nigeria included an electric-arc-furnace remelt facility and a 100,000-t/yr rolling mill (which would produce concrete-reinforcing bar) that were built for African Steel Mills Ltd. at Ikorodu in Lagos State and a 30,000-t/yr concrete-reinforcing bar mill, which would be operated by Sunflag Steel (Nigeria) Ltd., that was built at the Iganmu Industrial Estate complex in Lagos (Nav Bharat Engineering Works, 2004§; Yaya, 2004§).

Industrial Minerals

Cement.—In 2004, domestic consumption of cement was estimated to be between 10 million metric tons per year (Mt/yr) and 12 Mt/yr. Nigeria's installed cement production capacity was about 6 Mt/yr. Domestic production was supplemented by imported bulk cement, which was bagged primarily at terminals in or near Lagos and Port Harcourt. The Central Bank of Nigeria (2005, p. 70-71) reported a lull in domestic cement production in 2004 because a number of cement companies had suspended or terminated operations. Increased fuel costs impacted the remaining companies, most of which were powered by fuel oil (Holcim Ltd., 2005, p. 40; U.S. Securities and Exchange Commission, 2005§).

Unlike the metals sector privatization attempts, the rejuvenation of the cement sector by the infusion of funds after the privatization of the state-owned cement companies has been generally successful. The Lafarge Group of France obtained the formerly state-owned 900,000-t/yr-capacity Ashakacem Plc in Gombe State and the two privatized facilities of West African Portland Cement Co. Plc (WAPCO) in Ogun State when it acquired Blue Circle Industries Ltd. in 2001. In 2003, WAPCO commissioned a new 1-Mt/yr-capacity plant at Ewekoro to replace the 40-year-old 600,000-t/yr plant and at yearend 2004, WAPCO's Ewekoro and Shagamu plants had a combined capacity of 2.1 Mt/yr (U.S. Securities and Exchange Commission, 2005§).

Dangote Industries Ltd. of Nigeria, which bagged imported bulk cement in Lagos and Port Harcourt, acquired local manufacturing capacity in 2001 when it became the core investor in the Benue Cement Co. Plc. Rehabilitation of the 900,000-t/yr Benue plant at Gboko was completed in 2004. Dangote also proceeded with a proposed 4.7-Mt/yr-capacity cement plant at Obajana in Kogi State, a 2.3-Mt/yr cement plant at Ibese in Ogun State, and a 2.3-Mt/yr cement plant in Odukpani near Calabar in Cross River State (Dangote Group, 2004§).

In 2004, the Cement Co. of Northern Nigeria, in which Scancem International ANS had acquired 51% interest in 2000, finished the rehabilitation of the 500,000-t/yr-capacity plant at Sokoto, and Edo Cement Co. Ltd., which also was a subsidiary of Scancem, continued the rehabilitation of the cement plant formerly operated by the Bendel Cement Co. Ltd. at Okpella. Edo had acquired the majority interest in Bendel in 2003 and, in 2004, began bagging imported cement at the facility (Aderinokun, 2003§).

Employees of the coal-burning Nigercem Plc. reportedly had not been paid since June 2000. In October 2002, the idle operation was privatized; Eastern Bulkcem Co. Ltd. (EBC) acquired 60% interest. EBC, which bagged imported bulk cement near Port Harcourt, had proposed to rehabilitate the Nigercem facility, but there was no apparent activity in 2004 (Obi, 2005§).

In 2003, investors joined with the Akwa Ibom State government to form Quality Cement Co. Ltd. (Quacem) and proposed to build a facility at Ikot Abasi. Quacem initially was to bag imported cement and eventually would manufacture cement. At yearend, the scheduled October 2004 bagging startup date had slipped to mid-2005 (Akwa Ibom State Government, 2005§).

Nitrogen.—The sale in 2003 of the National Fertilizer Co. of Nigeria Ltd. (NAFCON) to the joint venture of Sino Africa Petrochemical Co. Ltd. and Foskor Ltd. of South Africa was voided by the BPE after the joint venture failed to provide the initial payment. The Government's continuing investigation into the financial status of NAFCON reported unverified claims against the company of about $202 million, of which separation allowances and unpaid wages of former employees accounted for about $72 million. In 2004, the BPE prepared to request another round of bids for NAFCON and prequalified several companies interested in bidding to acquire the NAFCON facility, which had produced ammonia and urea until financial difficulties forced the company to stop operations in 1999 (Guardian, The, 2004b§; Nigerianewsnow.com, 2004§; Nwigwe, 2004§).

Mineral Fuels

Coal.—The Ministry of Solid Minerals Development received a $410,800 grant from the U.S. Trade and Development Agency for a feasibility study on the redevelopment of Nigeria's coal resources. For the 20 years prior to the start of the civil war in the mid-1960s, Nigeria had produced between 500,000 t/yr and 1 Mt/yr of coal (Oyelaran-Oleyinka, 1995§; Guardian, The, 2004a§).

Natural Gas.—Construction continued on Nigeria Liquefied Natural Gas Ltd.'s (NLNG) natural gas liquefaction trains 4 and 5 at Finima on Bonny Island. Completion of the trains was expected in 2005. In July, NLNG approved the construction of the 4-Mt/yr-capacity liquefied natural gas (LNG) train 6, which, when completed in 2007, would raise the NLNG's facility's capacity to about 22 Mt/yr of LNG and 5 Mt/yr of liquefied petroleum gas. In 2004, the Serious Fraud Office of the United Kingdom and the U.S. Federal Bureau of Investigation initiated separate investigations into alleged bribes paid by the TKSJ consortium, which comprised (in order of consortium initials) Technip S.A. of France, M.W. Kellogg Co. of the United States (which subsequently was acquired by Halliburton Co. and merged with Halliburton's Brown and Root division), Snamprogetti S.p.A. of Italy, and Japanese Gas Corp. The alleged bribes were to obtain contracts to build the initial LNG trains for NLNG. In 2003, the Tribunal de grande instance de Paris launched an investigation into alleged bribery by TKSJ (Africa Energy Intelligence, 2004; Nigeria Liquefied Natural Gas Ltd., 2004).

Engineering work continued on the proposed Brass River LNG facility, the proposed Escravos gas-to-liquids project, and the East Area Additional Oil Recovery project, which included a proposed 42,000-barrel-per-day (bbl/d) expansion of the current (2004) 38,000-bbl/d-capacity natural-gas-liquids (NGL) plant on Bonny Island (Igbikiowubo, 2004§).

In November, the World Bank authorized a $125 million guarantee to support the West African gas pipeline, and in December, West African Gas Pipeline Co. Ltd. (WAPCo) approved the final investment decision to proceed with the construction of the $590 million 678-kilometer pipeline that was designed to deliver Nigerian natural gas to Benin, Ghana, and Togo. The pipeline was expected to be operational in 2006 and was expected to transport about 13.3 million cubic meters per day of natural gas at maximum capacity (West African Gas Pipeline Co. Ltd., 2004).

Petroleum.—Despite civil violence directed at the international oil company facilities and intertribal conflicts that adversely impacted production operations, Nigerian oil production continued to climb in response to increased international oil prices and the associated increased production quota authorized by OPEC for the last six months of the year (Organization of the Petroleum Exporting Countries, 2005, p. 6).

The BPE received numerous responses to the request for expressions of interest in the privatization of 51% interest in each of Nigerian National Petroleum Corp. (NNPC)'s four crude oil refineries that it issued in 2003. Most of the responses, however, were from consortia of domestic and international small- to medium-sized entrepreneurial, marketing, and trading companies and not from major international oil companies. In 2004, operations at NNPC's Kaduna and Warri refineries were suspended for about a month because of vandalization of crude oil supply pipelines. The Kaduna refinery had been closed from April to November 2003 for the same reason.

In March 2004, the Government proposed to increase domestic refining capacity to 2 million barrels per day (Mbbl/d) by 2006 from the current (2004) capacity of about 445,000 bbl/d, although actual refined product output was significantly lower. To supplement the production of NNPC's refineries, the Government had issued 18 provisional licenses for private refineries. In 2004, the private refinery license holders were seeking primarily financing and technical partners. In December 2004, the NNPC requested that its joint venture partners refine in Nigeria at least one-half of the oil they produced in Nigeria (Nwama, 2004§; Odunyi and Ezigbo, 2004§).

Outlook

The Government expects to continue efforts to attract local and foreign investors to the Nigerian mineral industry, but except for coal, columbium (niobium) and tantalum, granite, gypsum, iron ore, limestone, natural gas, oil, and tin, known resources of most mineral commodities have not been considered large enough to generate significant international interest. Some exploration has been conducted in Nigeria for higher-value commodities, such as gold and tantalum. The completion of comprehensive geologic and geophysical surveys may generate additional prospects that could attract the interest of exploration companies. National industrial development could be enhanced by the rehabilitation of the iron and steel sector.

Nigeria's extensive deposits of limestone, the infusion of domestic and foreign investment in recently privatized cement operations, and the Government's promotion of natural gas, which traditionally had been burned off at oilfield gathering stations, has resulted in the proposed construction of new cement plants and the rehabilitation or expansion of existing plants that could nearly triple Nigerian cement production capacity by 2007.

The development of additional natural gas infrastructure in Nigeria could attract additional energy-intensive mineral processing facilities. The rising price of oil on the international market could provide an opening for the redevelopment of Nigerian coal reserves if, within the limitations of international treaties such as the Kyoto Protocol, domestic and international electricity-generating plants increase their demand for coal.

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TABLE 1
NIGERIA: ESTIMATED PRODUCTION OF MINERAL COMMODITIES[1, 2]

(Metric tons unless otherwise specified)

Commodity[3]		2000	2001	2002	2003	2004
METALS						
Columbium (niobium) and tantalum:						
Gross weight, concentrate		469	610	156 [r, 4]	383 [r, 4]	100
Nb content		200 [r]	250 [r]	65 [r]	160 [r]	40
Gold	kilograms	52 [4]	37 [4]	40	50	30
Iron ore, gross weight	thousand metric tons	25 [4]	25 [4]	25	--	--
Lead:						
Lead-zinc ore		165 [4]	247 [4]	250	250	200
Metal, refined		5,000	5,000	5,000	5,000	5,000
Steel		--	--	--	--	10,000
Tin:						
Mine output, cassiterite concentrate:						
Gross weight		3,502 [4]	3,677 [4]	1,004 [r]	2,341 [r]	1,300
Sn content		2,760 [4]	2,870 [4]	790 [r]	1,800 [r]	1,000
Metal, smelter		25	25	25	25	25
INDUSTRIAL MINERALS						
Barite[5]		5,000	5,000	5,000	5,000	6,000
Cement, hydraulic	thousand metric tons	2,500	2,400	2,100	2,300 [r]	2,300
Clays:						
Kaolin		165,765 [4]	209,478 [4]	200,000	200,000	210,000
Unspecified		50,412 [4]	60,474 [4]	60,000	60,000	50,000
Feldspar		1,449 [4]	1,811 [4]	1,800	1,800	1,700
Gypsum		530,262 [4]	609,800 [4]	300,000 [r]	100,000	100,000
Stone:						
Granite	thousand metric tons	2,016 [4]	2,419 [4]	2,500	2,500	2,000
Limestone	do.	3,326 [4]	3,392 [4]	11,415 [r, 4]	7,408 [r, 4]	2,100
Marble	do.	117 [4]	129 [4]	1,551 [r, 4]	840 [r, 4]	150
Shale	do.	142 [4]	163 [4]	130	130	70
Topaz	kilograms	25 [4]	1 [4]	10	10	10
MINERAL FUELS AND RELATED MATERIALS						
Coal, bituminous		11,536 [4]	11,495 [4]	43,482 [r, 4]	23,089 [r, 4]	9,000
Natural gas:						
Gross	million cubic meters	47,537 [4]	57,530 [4]	50,000 [r]	53,000 [r]	57,747 [4]
Dry	do.	21,945 [4]	39,640 [4]	30,000 [r]	31,000 [r]	34,411 [4]
Petroleum:				94%		
Crude	thousand 42-gallon barrels	783,000	823,000	773,000	825,000 [r]	900,400 [4]
Refinery products:						
Liquefied petroleum gases	do.	170	1,000	2,300	2,000	2,200
Gasoline	do.	8,000	24,400	22,400	20,000	22,000
Kerosene	do.	5,100	12,500	11,800	12,000	13,000
Distillate fuel oil	do.	7,600	18,900	18,800	19,000	21,000
Residual fuel oil	do.	10,400	21,500	17,200	17,000	18,000
Unspecified	do.	1,200	700	4,000	4,000	4,300
Total	do.	32,500	79,000	76,500	74,000	80,500

[r]Revised. -- Zero.
[1]Estimated data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes data available through September 30, 2005.
[3]In addition to the commodities listed, amethyst, aquamarine, bitumen, copper (secondary), diamond, emerald, garnet, lime, monazite, phosphate rock, ruby, rolled-steel products, rutile, sand and gravel, sapphire, soda ash, talc, tourmaline, tungsten, zinc, and zircon are produced, but information is inadequate to estimate output.
[4]Reported figure.
[5]Considerably more barite is produced but is considered to be commercially unusable.

TABLE 2
NIGERIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2004

(Metric tons unless otherwise specified)

Commodity		Major operating companies	Location of main facilities	Annual capacity
Aluminum		Aluminum Smelter Co. of Nigeria, Ltd.	Smelter at Ikot Abasi	193,000 [1]
Cement		Dangote Cement Works	Ibese	2,300,000
Do.		United Cement Co. of Nigeria	Calbar	2,000,000
Do.		West Africa Portland Cement Co. Plc	Ewekoro	1,500,000
Do.		Ashakacem plc	Ashaka	900,000
Do.		Benue Cement Co. Plc	Benue State	900,000
Do.		Nigercem Co. Plc	Nkalagu	600,000 [1]
Do.		West Africa Portland Cement Co. Plc	Shagamu	600,000
Do.		Cement Co. of Northern Nigeria	Sokoto	500,000
Do.		Edo Cement Co. Ltd.	Okpella	450,000 [2]
Coal		Nigerian Coal Corp.	Enugu	150,000
Columbium (niobium) and tantalum		Artisanal	Jos region	70
Copper, secondary		Sun & Sand Industries Ltd.	Ota	NA
Iron and steel:				
Iron ore		National Iron Mining Co. Ltd.	Itakpe	5,500
Steel:				
Steel, crude		Ajaokuta Steel Co. Ltd.	Blast furnace at Ajaokuta	1,350,000 [2]
Do.		Delta Steel Co. Ltd.	Electric arc furnaces at Aladja	1,000,000 [2]
Do.		African Steel Mills Ltd.	Electric arc furnace at Ikorodu	NA
Rolling mills		Delta Steel Co. Ltd.	Aladja	300,000 [2]
Do.		Jos Steel Rolling Co. Ltd.	Jos rolling mill	210,000 [1]
Do.		Katsina Steel Rolling Co. Ltd.	Katsina rolling mill	210,000 [1]
Do.		Oshogbo Steel Rolling Co. Ltd.	Oshogbo rolling mill	210,000 [1]
Do.		Ajaokuta Steel Co. Ltd.	Ajaokuta	130,000
Do.		African Steel Mills Ltd.	Rolling mill at Ikorodu	100,000
Do.		Sunflag Steel (Nigeria) Ltd.	Rolling mill at Lagos	30,000
Natural gas, liquefied		Nigeria Liquefied Natural Gas Ltd.	Finima, Bonny Island	8,900
Nitrogen, ammonia		National Fertilizer Co. of Nigeria Ltd.	Onne	365,000 [1]
Petroleum				
Crude	million 42-gallon barrels	Various joint ventures with Nigerian National Petroleum Corp.	Niger Delta and offshore	910
Refined petroleum products	do.	Port Harcourt Refining Co. Ltd.	Old Port Harcourt refinery	22
Do.	do.	do.	New Port Harcourt refinery	55
Do.	do.	Warri Refinery and Petrochemicals Co. Ltd.	Warri refinery	43
Do.	do.	Kaduna Refinery and Petrochemicals Co. Ltd.	Kaduna refinery	38
Tin		Artisanal	Mines at Dutse Nkura	30
Do.		do.	Mines at Jos (Gurum)	30
Do.		Makeri Smelting Co. Ltd.	Refinery at Jos	1,000 [1]

NA Not available.
[1]Closed.
[2]Under rehabilitation.