

The Mineral Industry of Cyprus

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The mineral resources of Cyprus continued to hold an important place in the country's economy in 1968. The mineral industry's contribution to the gross domestic product (GDP) was estimated to approximate its share in 1967, when it accounted for \$27 million,² or 6.4 percent, of a GDP of \$419 million.³ In 1967, the mineral industry spent an estimated \$21.4 million in Cyprus for wages, taxes, rents, royalties, supplies and equipment; payments to the Government totaled \$743,000.⁴ In 1968, an estimated 5,000 persons were employed in mining and quarrying operations; most worked above ground.

Mineral prospecting, mainly for copper and sulfur minerals, continued in 1968. At the beginning of the year, there were 76 prospecting permits covering 293 square kilometers, about the same as that a year previous.⁵ The Geological Survey of Cyprus and the United Nations Special Fund, ex-

ploring together, found indications of new cuprous pyrite deposits north of the Troodos Mountains. The economic potential of the discoveries is to be determined. Most of the mining companies continued development and prospecting programs. Cytechno, Ltd., a recently formed Cyprus company, reportedly established the existence of new, economically exploitable reserves of asbestos and iron pyrites.

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² Where necessary, values have been converted from Cyprus pounds (C£) to U.S. dollars at the rate of C£1=US\$2.80. In November 1967, the rate was changed to C£1=US\$2.40; this change was not incorporated in the conversions in this chapter.

³ Economic Report, 1967, Republic of Cyprus. Statistics and Research Department, Ministry of Finance, Nicosia, 1968, p. 2.

⁴ Petropoulos, P. G. Annual Report of the Senior Mines Officer for the Year 1967. Nicosia, 1968, p. 3.

⁵ Page 5 of work cited in footnote 4.

PRODUCTION

The pattern of mineral output in Cyprus in 1968 was generally similar to that in 1967. Output of both chromite and cement continued to increase at a rapid rate.

Copper production rose, reversing the downward trend that began in 1966. Output of total gypsum dropped, but production of calcined gypsum rose sharply. Output of bentonite more than doubled.

Table 1.—Cyprus: Production of mineral commodities

(Metric tons unless otherwise specified)

Commodity	1964	1965	1966	1967	1968
METALS					
Chromite.....	3,000	4,990	10,464	21,806	25,104
Copper ¹	13,000	20,450	17,757	15,507	17,086
NONMETALS					
Asbestos.....	12,478	15,986	22,180	17,642	17,242
Bentonite.....	1,553	3,048	2,947	4,531	10,160
Cement.....	70,000	98,357	98,560	186,708	241,344
Gypsum:					
Crude.....	45,000	60,975	45,061	45,700	20,320
Calcined.....	30,000	20,325	20,540	16,300	30,480
Lime.....	• 40,000	73,550	• 76,000	• 82,000	• 85,000
Mineral pigments:					
Terre verte.....	10	10	NA	17	7
Umber.....	• 6,000	14,532	5,590	11,326	6,118
Yellow ocher.....	• 400	304	102	463	650
Pyrites (sulfur content)..... thousand tons..	329	483	386	413	420
Salt.....	NA	5,355	4,013	6,687	4,816

• Estimate. NA Not available.

¹ Estimated content of concentrates, cement copper, and cuprous pyrite; excludes content in iron pyrites ore that may or may not be recovered.

TRADE

The trade balance of Cyprus in 1967 continued to be favorable in mineral commodities and unfavorable in total trade. Compared with 1966, the trade balance in minerals was less favorable, and minerals' share of total trade was reduced. The values of mineral trade and total trade for recent years follow:

	Value (million dollars)		Mineral commod- ities' share of total (percent)
	Mineral commod- ities ¹	Total trade	
Exports:			
1966.....	34.2	77	44
1967.....	25.0	83	30
Imports:			
1966.....	21.4	158	14
1967.....	21.9	167	13
Trade balance:			
1966.....	+12.8	-81	XX
1967.....	+3.1	-84	XX

XX Not applicable.

¹ Values given are for only those commodities listed in tables 2 and 3 of this chapter.

By value, copper continued to be the most important mineral export, accounting for \$14.9 million, or about 60 percent of the value of total mineral exports in 1967. Pyrite ranked second with a total of \$6.9 million. Petroleum refinery products were again the chief mineral imports, being valued at \$11.1 million. Dominating the petroleum category were fuel oils (\$5.4 million) and motor gasoline (\$3 million). Imports of iron and steel semimanufactures totaled \$7.6 million.

Table 2.—Cyprus: Exports of mineral commodities

(Metric tons)

Commodity	1966	1967	Principal destinations, 1967
METALS			
Chromite.....	2,541	27,381	Mainland China 11,331; Austria 7,550; Canada 6,300.
Copper:			
Concentrate.....	58,682	45,341	Spain 16,790; West Germany 12,131; Japan 11,848.
Cement.....	14,778	8,914	West Germany 4,195; Japan 3,152; Spain 1,567.
Cuprous pyrite.....	164,248	186,621	West Germany 112,032; Netherlands 74,589.
NONMETALS			
Asbestos, crude.....	19,191	18,839	Denmark 5,034; United Kingdom 3,191; Thailand 2,770; Belgium 2,306.
Gypsum:			
Crude.....	56,543	13,162	Taiwan 10,262; Lebanon 2,900.
Calcined.....	1,215	298	Lebanon 251.
Mineral pigments:			
Ocher.....	319	463	United States 332; United Kingdom 67.
Terre verte.....	12	16	NA.
Umber:			
Crude.....	747	853	United States 545; United Kingdom 287.
Burnt.....	4,684	5,388	United States 3,537; United Kingdom 1,349.
Pyrite.....	746,819	721,660	Italy 331,732; Belgium 145,835; Netherlands 131,656.
Others.....	4,182	5,189	Israel 4,948.

NA Not available.

Table 3.—Cyprus: Imports of mineral commodities

(Metric tons unless otherwise specified)

Commodity	1966	1967	Principal sources, 1967
METALS			
Aluminum and alloys.....	406	424	Greece 191; Italy 67; United Kingdom 57.
Copper, including brass.....	89	51	Belgium 27; Netherlands 6; New Zealand 6.
Gold..... troy ounces.....	15,706	16,084	United Kingdom 16,052.
Iron and steel:			
Pig iron.....	259	361	United Kingdom 244; U.S.S.R. 117.
Ferroalloys.....	5	5	All from United Kingdom.
Semimanufactures.....	50,369	59,151	France 17,648; Belgium 7,933; Italy 6,189; West Germany 5,993.
Lead and alloys.....	281	97	United Kingdom 85.
Tin and alloys..... long tons.....	607	613	United Kingdom 606.
Zinc and alloys.....	64	211	Belgium 200.
NONMETALS			
Asbestos.....	* 102	165	United Kingdom 97; West Germany 43.
Cement.....	87,675	17,837	Greece 8,629; Israel 4,098; United Kingdom 1,999.
Clays.....	* 159	316	United Kingdom 149; Italy 100.
Fertilizer materials, manufactured:			
Nitrogenous.....	* 42,536	27,680	East Germany 7,479; United Kingdom 6,311; Italy 4,789; Portugal 3,773.
Phosphatic.....	26,160	20,233	Portugal 8,560; Yugoslavia 6,079; Lebanon 2,993.
Potassic.....	376	297	All from France.
Pumice.....	551	1	NA.
Salt.....	320	216	United Kingdom 201.
Stone, building:			
Unworked..... value.....	\$24,248	NA	
Worked..... do.....	\$9,456	NA	
Sulfur.....	2,023	-----	
MINERAL FUELS			
Asphalt and bitumen, natural.....	12,460	15,460	Spain 6,675; United Arab Republic 3,912; Israel 3,150.
Coal.....	522	177	All from West Germany.
Coke.....	350	209	All from West Germany.
Petroleum refinery products:			
Motor, thousand 42-gallon barrels..... gasoline.....	607	660	Italy 275; Netherlands Antilles 195.
Aviation gasoline..... do.....	20	14	Netherlands Antilles 9; United Kingdom 5.
Kerosine..... do.....	239	272	Italy 91; Netherlands Antilles 37; Greece 60.
Jet fuel..... do.....	28	-----	
White spirits and solvents..... do.....	3	3	United Kingdom 1; Netherlands Antilles 1.
Gas oil..... do.....	642	743	Italy 378; Netherlands Antilles 154.
Fuel oil, including diesel..... do.....	1,298	1,317	U.S.S.R. 888; Italy 296; France 91.
Lubricating oil and grease..... do.....	32	36	United Kingdom 24; Netherlands 4.
Other, including pitch and wax..... do.....	3	4	United Kingdom 3; West Germany 1.

* Revised. NA Not available.

COMMODITY REVIEW

METALS

Chromite.—Chromite exports in 1967 were about 10 times higher than those in 1966 because of the continuation of high prices on the world market and the steady development program of Hellenic Mining Co. Ltd., which obtained the mines in 1964. The chromite mines are in the Troodos Mountains, and the treatment plant is at Ayios Nikolaos.

Copper.—During the year, Skouriotissa was the chief mine of Cyprus Mines Corp. The reserves at the Mavrovouni mine were nearing depletion. The planned output of ore in 1968 for Skouriotissa was about 600,000 tons, compared with about 75,000 tons for Mavrovouni.

The principal mine of Hellenic Mining Co. Ltd., in 1968 continued to be Kalavassos. Most of the mine's output was from the Mousoulos ore body. In 1967, development work at the mine totaled 580 feet of shafts and 6,335 feet of drifts.

In 1967, the Limni Mines of Cyprus Sulphur and Copper Co. Ltd., yielded 446,705 tons of ore, from which 19,476 tons of copper concentrate was obtained. Proven reserves totaled about 2 million tons averaging 1.1 percent copper. The continued exploitation of these low-grade reserves depends on the continuation of high prices for copper on the world market.

NONMETALS

Asbestos.—The Cyprus Asbestos Mines, Ltd., quarried 3.5 million tons of rock in 1967, up from 2.5 million tons in 1966. About 1.2 million tons were milled to produce 11,688 tons of long-grade fibers and 8,072 tons of short-grade fibers. In 1967 the Asbestos Cement Factory at Moni manufactured 31 tons of flat sheets, 874 tons of corrugated sheets, and 180 tons of molded goods.

Cement.—In 1968, cement was produced by the Cyprus Cement Co., Ltd., and Vassiliko Cement Works, Ltd.; the latter began production about 1967. The combined output of these plants is making Cyprus more self-sufficient in cement.

Fertilizer Materials.—Preparations were underway during the year to build a fer-

tilizer plant costing an estimated \$5 million near Larnaca. The owners of the plant will be Cyprus Cooperative Confederation (50 percent), the country's major importer and distributor of fertilizers, the Cyprus Orthodox Archbishopric, and Anastassis Leventis, a local businessman (25 percent each). Using the island's pyrite deposits and imported ammonia, the plant will have the capacity to produce 80,000 tons per year of superphosphate and ammonia-based fertilizers.

Gypsum.—United Gypsum, Ltd., continued to account for most of the gypsum produced. Limassol Chemical Products apparently continued to rank foremost among the several smaller producers.

MINERAL FUELS

During the latter part of 1968, Forest Oil Co. and Jack Grynberg and Associates, both U.S. companies, completed negotiations for an exploration venture with Industrija Nafta-Zagreb (INA), a Yugoslav State-owned petroleum company. Forest Cyprus Corp., Forest's subsidiary, obtained a license in Cyprus in late 1962 for 8,900 square kilometers and made extensive seismic surveys before its exploration was stopped by the civil disorder that erupted in 1963. Instead of resuming exploration after stability was restored, Forest farmed out the license to Grynberg, who arranged for the present agreement with INA. INA is to drill the first well (to about 9,000 feet) at its own expense. Thereafter, all future operating expenses of the new enterprise will be shared. The Cyprus Government is to receive 50 percent of the profits from any petroleum produced.

During the year, the Government was considering granting an oil exploration license to Cytex, a local company, for a small area near Limassol. In 1967, Terabyss, another Cyprian company, was granted a license covering a 1,140-square-kilometer area in the Paphos District.

Construction of the 10,000-barrel-per-day refinery planned for Larnaca by Cyprus Oil Refining Co., Ltd., had not yet begun at yearend 1968. The delay was due to the failure of the Government and the company to resolve several issues. There were reports that construction of the \$17 million refinery was expected to begin in 1969.