

Long-Suffering Smelters

Japan is the free world's second-largest consumer of nonferrous metals, next only to the United States. Its consumption of copper reached 1.35 million tons in fiscal 1986, aluminum 1.88 million tons, zinc 720,000 tons and lead 270,000 tons. Consumption levels have remained high in fiscal 1987, and particularly so for copper and aluminum, in line with the overall business recovery.

Copper demand is high among manufacturers of electronic and electric machinery and makers of brass mill products for buildings. Demand from electric wire and cable and telecommunications cable makers is also vigorous, as is demand related to housing construction. Fiscal 1987 consumption of copper ingots is estimated at 1.4 million tons, up 3% from the previous year. In fiscal 1988, copper demand is expected to remain high, although exports of electric wire and cable are likely to decrease as the yen appreciates against the U.S. dollar.

Aluminum demand in fiscal 1987 will be considerably higher than the previous year. Consumption of aluminum for cans is estimated at 220,000 tons, up 40% from the previous year. Demand from manufacturers of building materials is estimated at 830,000 tons, up 11%. Aluminum ingot consumption in fiscal 1987 is likely to hit a record 2 million tons, up 6%.

In fiscal 1988, too, aluminum demand is likely to remain brisk. Housing con-

struction will continue at a high level, while aluminum can demand is forecast at 5 billion units, up from an estimated 4.5 billion in fiscal 1987.

Yet despite this buoyant demand, Japanese nonferrous metal smelters are faring badly as the yen rises against the U.S. dollar. Aluminum smelting companies, in particular, have been forced to withdraw, in effect, from smelting work in Japan.

The Japanese aluminum smelting business expanded rapidly during the high economic growth of the 1960s. In the peak year of 1977, production amounted to 1.19 million tons of primary aluminum ingots. But sharply increased production costs brought on by the two oil crises in the 1970s and the resultant decline in their international competitiveness forced smelting plants to close down in rapid succession. A steep decline in the overseas aluminum market further accelerated this trend.

Since April 1987, there has been only one aluminum smelter in operation in Japan, producing slightly less than 30,000 tons of ingots a year—a virtual termination of aluminum smelting in Japan.

Copper, zinc, lead and other smelting businesses are also at crossroads. The yen's precipitous rise has destroyed the competitiveness of most of their domestic mines on the international market. Importing ores under dollar-denominated contracts, their smelting margins in yen



Photo: Nippon Light Metal Co.

An automobile wheel using new magnetic material; one result of diversification efforts being made by Japan's nonferrous metal firms.

terms have declined as a result of the yen's fast rise, forcing them to drastically rationalize their operations. Unremunerative smelting operations have been separated from their parent firms, being made into subsidiaries or shut down completely. The shutdown of domestic copper mines left domestic copper ores accounting for a bare 2% of the total ore consumed in copper ingot production in 1986, a far cry from the 11% in 1975.

Nonferrous metal companies have tried to cope by taking labor-saving measures at their remaining smelters and switching to yen-denominated ore import contracts. They are also diversifying into new businesses, from aluminum cans to electronic materials, industrial machinery, brass mill products and new industrial materials. They have acquired businesses, entered into mergers, set up subsidiaries and purchased production equipment. These investments stand in sharp contrast to the rationalization and labor-saving investments in their smelting divisions.

Nonferrous metal firms are further stepping up overseas operations in an attempt to reap some benefits from the strong yen. The share of their smelting divisions in total sales is declining steadily.

The success of these rationalization and diversification efforts will determine the future of the industry. So far, there has appeared to be some effect. Fiscal 1987 revenues and profits for the seven major nonferrous metal companies as a whole, though still low, are expected to be appreciably better than in the previous year.

(Kosuke Nakamura, economist)

Electrolytic Copper and Aluminum Supply and Demand

(1,000 metric tons)

	Output				Imports	Consumption	
		from domestic ore	from imported ore	from scrap			
Electrolytic copper	1975	818.9	90.4	651.6	42.4	168.0	806.2
	1980	1,014.3	48.5	841.0	75.8	227.7	1,364.6
	1985	936.0	29.2	773.2	87.1	356.1	1,360.9
	1986	943.0	21.2	806.4	70.8	272.4	1,169.4
Aluminum	1975	1,013.3	—	—	—	338.8	1,325.5
	1980	1,091.5	—	—	—	841.4	1,640.9
	1985	226.5	—	—	—	1,400.4	1,783.2
	1986	140.2	—	—	—	1,214.2	1,804.6

Source: Ministry of International Trade and Industry