FOCUS

Chinese Aluminium Market Overview

—— Contributed by Macquarie Bank Group Research

The Chinese aluminium market is undergoing major changes as production and consumption rise sharply. The lack of historical aluminium consumption data, particularly on a sector—by—sector basis makes it difficult to forecast future demand growth. Production statistics are available on a regional basis, however capacity expansion and production plans are less readily available. Chinese trade in aluminium is characterised by violent swings in imports and exports from month to month, making forecasting of the net trade position difficult.

☐ **Production**

Historical aluminium production statistics for China are readily available on a regional basis. However, forecasting of smelting capacity and production is made difficult by the large number of small—scale (5—30, 000tpa) facilities and a lack of information about their expansion and investment plans. Official Chinese production statistics show that there was dramatic growth in aluminium production between 1990 and 1994 (see table below), with output at non—CNNC plants more than doubling and output at CNNC plants rising by nearly 50 per cent.

Chinese Aluminium Production ('000t)

	1990	1991	1992	1993	1994	Change 90—94
Total	854	963	1096	1254	1498	644
of which: CNNC	510	553	555	618	735	225
Other	344	410	542	637	763	419

Data: CNNC

The increases in production were spread across a wide range of smelters, with many of the increases being incremental rises of less than 5, 000t. However, based on CNNC figures and our estimates, we believe that over 50 per cent of the expansions were accounted for by just nine smelters. Our estimates of production at these smelters are outlined in the table below. The "other" increases in production were split between a large number of small—scale smelters.

The rapid rise in production has continued in 1995, with official figures showing a year—on—year increase of over 17 per cent in the first nine months of the year. We expect Chinese aluminium production to reach 1. 65m tonnes this year, with the biggest increase coming from the Pingguo smelter, which started production in late 1994.

Main Changes in Chinese Smelter Production ('000t)

Plant	Province	1990	1994	Change
Baiyin Aluminium Plant	Gansu	8	45	37
Liancheng Aluminium Plant	Gansu	67	93	26
Lanzhou Aluminium Smelter	Gansu	51	85	34
Guizhou Aluminium Plant	Guizhou	72	134	62
Zhongzhou Aluminium Plant	Henan	0	50	50
Hunjiang Aluminium Plant	Jilin	7	27	20
Qintongxia Aluminium Plant	Ningxia	60	86	26

Qinghai Aluminium Plant				
	Qinghai	44	112	68
Yunnan Aluminium Plant				
	Yunnan	14	40	26
Other	**Various**	532	826	294
Total		855	1498	643

Data: CNNC, Macquarie Estimates

□ Trade

Although in the last five years China has generally been a net importer of aluminium, from month to month the net trade position has been extremely volatile. For example, in the first quarter of 1995 China was a net exporter of aluminium. Since this time, China has been a net importer of aluminium. This volatility is due to the fact that aluminium is traded on terminal markets in the West (the LME) and on exchanges within China (for example Shanghai). As a result, Chinese trade patterns reflect not only the underlying surplus or deficit within the Chinese market, but also differentials in prices between China and the West.

Trade in semi—fabricated products is much less volatile and has become an increasingly important feature of the Chinese market. Imports of semis have surged from 44, 000t in 1990 to 177, 000t in 1994, while exports have risen 18, 000t to 40, 000t over the same period. The table below shows a clear shift away from imports of unwrought aluminium, towards imports of semi—fabricated products, particularly thin—gauge foil and beverage can sheet and has provided a significant boost to demand for unwrought aluminium in neighbouring Asian countries.

Official Chinese Trade Statistics

	1990	1991	1992	1993	1994
Unwrought Aluminium and Alloy					
Imports	116	44	230	166	169
Exports	65	69	56	68	131
Net Imports	51	−25	174	98	38
Semi—Fabricated Products					
Imports	44	65	114	125	177
Exports	18	27	32	30	40
Net Imports	26	37	82	95	137

Source: Chinese Customs Statistics

□ Consumption

Chinese consumption of unwrought aluminium grew at an annual average rate of 15. 8 per cent per annum between 1990 and 1994. Nevertheless, consumption per head remains well below developed Western economies, at around 1kg per capita, compared with 17—22kg / capita in major developed Western economies. In addition to primary aluminium consumption, the table below also presents end—use consumption of aluminium, calculated as real consumption of primary aluminium, plus net imports of aluminium semi—fabricated products.

As noted above, imports of semi—fabricated products have been growing rapidly. In 1994 semies imports accounted for 8. 4 per cent of end—use consumption, compared with just 3. 0 per cent in 1990.

Chinese Aluminium Supply and Demand ('000t)

	1990	1991	1992	1993	1994
Production	850	956	1080	1254	1498
Net Imports	51	−25	174	98	38
Supply	901	931	1254	1352	1536
Real Consumption	835	1058	1328	1356	1500
Apparent Stock Change	66	−127	−74	−4	36
Net Semis Imports	26	37	82	95	137
End—Use Consumption	861	1095	1410	1451	1637

Source: CNNC, Macquarie Estimates