COPPER

By a Special Contributor

In 2003 copper prices began to realise their true potential and led the LME base metals complex higher as significant production cuts coincided with a resurgence in economic growth in the main consuming economies of the US and Far East Asia. The realisation that Chinese demand was growing exponentially helped to send prices surging through resistance. In Europe, however, there was no significant demand growth and this acted as a drag on copper prices, pegging the year-end cash price peak on the London Metal Exchange to US$2,321/t (US$1.05/lb).

Without doubt, however, the key driver in the second half of the year surge in prices was from the supply-side. Data from the International Copper Study Group (ICSG) show global mine production in 2003 up by just 0.7% to 13.67 Mt. This, in turn, led to a 1.0% fall in refined production to 15.25 Mt. Demand totalled 15.45 Mt, and at year end there was a global deficit of 312,00 t, compared with a 197,000 t surplus at the end of 2002.

Market developments

Early in the year, and in line with the rest of the LME-traded metals, copper prices were influenced by fund activity as money was diverted into metals, away from the more poorly-performing equity markets. This led to a mini rally in January and February, with three-months prices advancing from US$1,562/t to a 22-month high of US$1,746/t. There was a modest correction before prices began to rise again on growing supply disruptions and recognition of the potential for Chinese buying to drive the market higher.

The market was unsettled during the second quarter by the hostilities in Iraq and the Severe Acute Respiratory Syndrome (SARS) that gripped most of Southeast Asia, but these considerations were soon shrugged off, and by mid-year prices began to advance strongly once more. In August, the long-term resistance at US$1,750/t (79.4¢/lb) was breached and three-month quotes quickly moved into the US$1,825-1,830/t range. A small correction then ensued as the funds took their profits but they returned to the market as buyers during the final quarter of the year as it became evident that the strength of demand in the US and Asia was gathering significant momentum, and that supply disruptions were tightening metal availability to the market.

For the first time in three years, the three-months price surged through US$2,000/t (US$0.91/lb). Copper closed the year at US$2,303/t (US$1.04/lb) and the three-month price average for the year was US$1,789/t, a year-on-year gain of 13.4%.

Stocks underwent a significant drawdown in 2003 as the recovery in demand significantly outpaced supply. The reported drawdown in all stocks for 2003 was 269,000 t, which fell short of the calculated (supply-demand) refined


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copper deficit of 312,000 t. Notable stock changes during the year included the reported 200,000 t stock accumulation by Codelco. The increase in producer inventories partly compensated for the steep fall in stocks at the metal exchanges.

LME stocks fell by just over 48%, to 430,525 t, and on the Comex in the US, stocks fell by 42% to 254,900 t. In Shanghai, however, metal stocks rose by 28% to 120,600 t, as more and more metal was shipped to the main Chinese entry point to feed the country's almost insatiable demand for copper.

Refined metal stocks held by producers and consumers declined slightly: producer stocks fell from 239,600 t to 237,900 t, and consumers stocks declined from 159,300 t to 146,900 t.

Production

Given the notable number of closures and temporary production curtailments, it is not surprising that Western world refined copper output fell 2.3% year-on-year to 11.49 Mt in 2003. On a global basis, though, refined production fell by just 1.0% to 15.25 Mt, with Chinese production rising by 8.6% to 1.77 Mt to set yet another production record. European Union output fell 8.2% to 1.73 Mt as a result of numerous capacity reductions and closures. The other main producing region, the US, saw refined production fall by 12.5% to 1.32 Mt as numerous capacity closures and curtailments cut into production.

According to ICSG data, global mine production during 2003 increased by just 0.7% to 13.67. Four of the world's top ten copper mines were subjected to supply disruptions of either a technical or labour nature. The most significant disruption was at Grasberg in Indonesia. The consequent reduced production of concentrates seriously impeded raw material supply to the smelters and led to a sharp decline in smelter stockpiles (and indirectly to the drawdown in LME inventories). Global refined production fell by 1.0% to 18.25 Mt, secondary supply was unable to fill the supply-demand gap. Scrap production fell by 10%.

The main supply disruptions occurred during the latter part of the year and included:

- Furukawa's suspension of operations at its Port Kembla smelter/refinery complex in Australia in September because of technical problems and a shortage of concentrates and the resulting low treatment and refining charges.

- Noranda's restructuring programme at its Horne smelter in Quebec, which will reduce annual anode production from 186,000 t to 145,000 t, by mid-2004.

- A fire at a solvent extraction plant at Phelps Dodge's Morenci operation in mid-October, halted production for three days but triggered a bullish market reaction.

- An earthquake in October forced the closure of a copper mine in China's Yunnan Province. The stoppage was only temporary, but the impact on market sentiment was substantial.

- Following a pit wall failure on October 9 at the giant Grasberg mine in Indonesia, Freeport McMoRan Copper & Gold estimated that fourth quarter copper production would be 32,000 t below target. However, other estimates from the copper market put the actual loss at closer to 100,000 t, spread over the final quarter of the year and on into the first half of 2004. Smelters such as Pan Pacific Copper, LG Nikko, Mitsubishi Materials and Sumitomo were all affected by the shortfall in concentrate supply and had to revise their own production targets

- December saw the threat of a labour dispute at the 180,000 t/y Highland Valley mine in Canada.

Secondary or scrap material is an important part of the supply/demand balance. Based on data supplied by the World Bureau of Metal Statistics (WBMS) and the ICSG, scrap recovery on a global basis from refined copper fell 3.0% in 2003 to 1.70 Mt, whereas demand from manufacturers increased by 1.3% to 3.86 Mt. Although reliable statistics on Chinese scrap demand are unavailable, anecdotal evidence indicates that Chinese buyers were very active in the European and US markets, and were prepared to pay premiums, irrespective of quality and in spite of strong rises in international freight rates.

On the back of increased demand for industrial commodities as a result of the resurgent growth in the global economy (except in Europe), world refined copper demand last year rose by 2.6% to 15.45 Mt. However, it should be noted that this number includes the 11.9% growth in China, where demand in December alone, was almost 300,000 t. Western demand in 2003 grew by just 0.02% to 11.54 Mt

The Chinese economy continued to register double-digit growth and there was exceptionally strong demand for copper by the automotive, construction, electronics, power and telecommunications sectors. According to the WBMS, Chinese refined copper production in 2003 grew by 8.6% to 1.77 Mt, whereas demand grew by almost 12% and exceeded 3.00 Mt. The shortfall was met by imports, estimated by the WBMS at some 1.36 Mt, a year-on-year increase of 15%. Such was the demand for imported copper that by the end of the year the problem was not so much sourcing the metal from the international market but unloading the countless ships waiting outside ports such as Shanghai, and transporting the product within the country. Chile supplied 654,707 t of the imported copper and Kazakhstan 228,562 t. Exports of refined copper fell by almost 16%.

In the European Union, refined copper demand in 2003 fell by 0.6% as the region remained gripped by an economic malaise. In the main consuming countries, demand fell across the board. In Germany, demand fell by 5.3% to 1.01 Mt, French demand fell by 1.8% to 551,300 t, Italian demand by 1.2% to 664,700 t, Spanish demand by a staggering 19.4% to 263,000 t and UK demand by 7.1% to 242,000 t.

In the US, although demand fell by 2.0% to 2.97 Mt over the whole year, the final three months saw very good growth.

In the Far East, refined copper consumption, excluding China, Uzbekistan, Kazakhstan and North Korea, registered year-on-year growth of just 0.04% to 4.13 Mt. However, when these countries are added back into the total, Asian consumption rose 4.6% to 7.28 Mt. Asian demand excluding China is dominated by Japan which saw its copper consumption increase year-on-year as its domestic economy began to pull itself out of the malaise that it has been in for almost a decade.

'000 t	**2000**	**2001**	**2002**	**2003**
Mine production	13,227	13,620	13,575	13,636
Mine capacity	14,199	14,445	15,077	15,581
Mine capacity utilisation (%)	93.2	94.3	90.0	87.5
Primary refined production	12,644	13,766	13,517	13,541
Secondary refined production	2,125	1,863	1,834	1,653
Refined production	14,769	15,629	15,351	15,194
World refined capacity	16,966	17,697	18,277	18,738
Refineries capacity utilisation (%)	87.1	88.3	84	81.1
World refined usage ([1])	15,131	14,894	15,153	15,506
Refined stocks end of period	1,291	1,997	2,081	1,812
Refined balance	362	735	197	312
LME cash price (US$/t)	1,814	1,578	1,558	1,780

Source: ICSG
([1]) Based on EU apparent usage