A STUDY OF THE COPPER INDUSTRY

YEARS 1955 AND 1956, AND FIRST TWO MONTHS OF 1957

U. S. PRODUCTION, CONSUMPTION, IMPORTS, EXPORTS, STOCKS, AND PRICES

Source: U. S. Bureau of Mines
: Engineering and Mining Journal
: Wall Street Journal

Many people have been alarmed over the recent drop in copper prices from 46 cents per pound to 32 cents per pound, and they are now wondering when the decline will stop.

To try and find an answer to this question, the Arizona Department of Mineral Resources has made a study of the copper industry, with a view of determining the cause of the abnormal fluctuations of the past two years.

The Department has compiled data on copper production, consumption, imports, exports, stocks and prices in the United States, by months for the years 1955 and 1956.

The study discusses conditions in the copper industry during 1955 and 1956, indicating how the law of supply and demand brought about the fluctuations in copper prices during this period. The report further treats of the happenings in the copper market during January and February of this year (1957).

1955

According to Table II, supplies of refined copper in the United States were about 6.3% larger than in 1954, while the consumptive demand was 19.71% larger. Although domestic mine production had increased 19%, it did not reach the high level promised by expanded operating rates at established as well as new mines; this failure resulted chiefly from serious work stoppages at several important mines in the third quarter of the year. Consumptive demand for refined copper rose more than production on a tonnage basis. Prices of domestic copper moved upward sharply during the year 1955, but, because foreign prices rose even more sharply, did not attract increased quantities of metal from abroad to the United States market. There were many unsatisfied buyers; more copper would have been sold and shipped had it been available. The inexorable law of supply and demand naturally had its effect on copper prices. The poor showing for refined copper consumption in July to September in 1955 was caused by brass mill vacations in July, by disastrous floods due to August hurricanes, and by reduced supplies caused by the production strikes mentioned above.

Major U. S. producers, conscious of their competitive position with respect to such other materials as aluminum, plastics and steel, did their best to avoid the sharp fluctuation (30 cts in January, 33 cts in February and March, 36 cts from April through July, 38 cts in August, 43 cts the remainder of the year). However, they were reluctantly compelled to revise their prices periodically. London prices fluctuated between 38 cts and 50 cts during the year. Sellers other than the major producers quoted a variety of prices to domestic consumers - the highest in the course of the year being 53 cts a pound. Substantial quantities were sold by custom smelters at 50 cts.

Demand played an important part in the upward surge of inflation in the market. New records of consumption were set in the area outside the Iron Curtain. Improvement occurred both in the U. S. and outside it. In this country the use of copper re-attained the high level of 1953; in the rest of the world the use of copper was about 50% above 1953.

But good demand was not the principal explanation for the price crisis. Another explanation lay in an unexpected series of major interruptions in operations by producers. The year started with a serious and prolonged strike in Northern Rhodesia, the principal supplier of the British consuming market, and the second largest producer of copper in the Western World in 1954. During the summer months there was a 45-day strike at many of the leading U. S. mines. Finally, in December, the Chilean copper industry was struck for the last three weeks of the year.

1956

Short supplies continued into the year 1956, and in February the large producers established a price of 46¢ a pound, while outside sellers at times realized better than 50¢. In the second quarter, with mine production showing substantial gains, demand began to falter, and the old law of supply and demand again began to work, this time in reverse. While production was increasing, consumptive demand was decreasing. When new three-year labor contracts with the Mine-Mill Union were agreed on in June, buyers concluded that there would be no major strikes in the United States during the year, and the large producers reduced their price - to 40¢ a pound by July 10th to 12th. This price was maintained until October 25th, when the producers dropped their price to 36¢ a pound. Meantime demand was slacking off from over 151,000 tons per month at the end of December 1955 to less than 110,000 tons at the end of 1956. Refined stocks increased from 34,000 tons at the beginning of the year to 78,000 tons at the end. Blister stocks rose from 201,000 tons to 261,000 tons during the same period. As to supplies and consumptive demand for the year as a whole, supplies increased 6.18% over the preceding year, while consumptive demand increased only 0.53%.

For the first three or four months of 1956, copper sellers, and especially the producers, had very profitable times. London Metal Exchange prompt bid price reached about 54½¢ late in March, 1956; in a few months it had dropped about 22¢ to a low of 32.9¢. Custom smelters reached about the same high price and came down to under 35¢ for U. S. customers by January, 1957. Dealers went to 55¢ in the U. S. and dropped to a low of about 34¢.

U. S. producers raised the price from 43¢ delivered to 46¢ late in February, and the Rhodesian Selection Trust Companies raised their prices to about 48¼ cts.

By June 1956, U. S. custom smelters were at 40¢ but producers were still at 46¢. When, by July 10th & 12th, the producers dropped their price from 46¢ to 40¢, London had reached about 35¼¢.

Government in early 1956 diverted much copper destined for the U. S. stockpile to industry. In December 1955, ODM had deferred about 14,000 tons. In March it deferred until December 31, 1956, about 36,000 tons. Near the end of 1956, the United States Department of Commerce liberalized copper export limitations.

Last October (1956), when copper's price was cut to 36 cents a pound from 40 cents, two official announcements were made of domestic curtailment of copper production. The total of about 4,000 tons involved, however, was small in comparison to the high rate of output.

JANUARY AND FEBRUARY, 1957

Although the producers maintained a price of 36¢ during January, the custom smelters and dealers were having difficulty disposing of their copper at 34¼¢ to 35¢. Then, on February 1st the producers offered their copper at 34¢, while the custom smelters offered to sell at 32½¢ to 32 3/4¢, and the Rhodesian Selection Trust Companies reduced their price to about 31¼¢ per pound.

When the above price cuts were made, many sellers as well as buyers expressed the belief that there was nothing to hold prices at the above levels; and some openly predicted further cuts. It is possible that further curtailment might be sufficient to get output to less than consumption by fabricators, but the impact of any further curtailment would not occur immediately. Some observers believe the important factor is the 437,187 tons held in stock by U. S. fabricators. Only about 18 months ago they had 304,000 tons.

In the middle of February the big producers announced another cut in the price of copper to 32¢. This brought custom smelter prices to 31 cents, but there still seems to be no evidence of an increase in demand. London prices hit the 30-cent level.

One bright spot in the copper picture has been the surprising increase in copper deliveries to fabricators in January, especially the deliveries outside the U. S. A. According to the Copper Institute, these latter deliveries amounted to 143,589 tons in January, 1957, as compared to an average of 113,500 tons during the year 1956. Deliveries inside the U. S. A. for January amounted to 120,000 tons as compared with an average of only 106,500 tons during the last six months of 1956.

Copper producers are studying the supply-demand picture for some possible action. Some insist it would be wise to build up producer inventories so the industry would not be caught short, as they were in 1956.

Many of the older copper producers would probably do well enough if copper should return to 30¢, but some of the newer operations might not. These apparently need a large output to get average costs down to a reasonable point. They might be unable to cut back, but perhaps might even have to expand.

Mine production outside the United States has been rising and new developments give prospect for large increases. The latter, however, may have to reach high production rates to be economic, and this may take years, if the experience of the United States is any criterion:

Anticipating a post-war demand for copper to rebuild and re-equip industry after the ravages of World War II, and to fill the vacuum of post-war scarcities in transportation, housing, and consumers' durable goods, the large producers in Arizona, Michigan, Montana and Nevada made plans to take care of this demand by developing new properties and expanding old ones. Developing large new mines takes from four to twelve years (the San Manuel took twelve), and the extraordinary demand (further accentuated by the Korean War) caught some of the mines

with their plants not fully developed. Hence, producers were unable to meet demand, and buyers, anxious to get the metal, bid prices up beyond reason. A side-light on this copper price rise is the consequent rise in the cost of production. For example, a copper miner's wage in 1947-49 was $1.43 per hour. This has jumped to $2.43 per hour in January of this year. And the three-year agreement which the unions obtained when copper was 46 cents, calls for another raise in July of this year, and again another raise next year. Meanwhile, copper has dropped from 46 cents to 32 cents. And of course supplies, which are in turn affected by the increased cost of labor, have also advanced tremendously. The new producers, with ores containing only 12 to 16 pounds of recoverable copper per ton of ore, are unquestionably going to be seriously affected in a 32-cent copper market, with labor and supply costs based on a 46-cent copper price.

The rising population and the desire of that population for higher living standards create a potential for much greater use of copper, and to meet this increased demand, producers all over the world have been taking steps to increase their capacity. The Engineering and Mining Journal has tabulated their estimate of what this capacity will be over the next six years:

	U. S. Capacity	Other Capacity	World Capacity
		(Thousands of Short Tons)	
1956	1,130	2,183	3,313
1957	1,190	2,315	3,505
1958	1,226	2,391	3,617
1959	1,237	2,444	3,681
1960	1,244	2,578	3,822
1961	1,278	2,652	3,930
1962	1,278	2,666	3,944

With not much likelihood of production costs coming down, it would seem that a copper price of 32 to 35 cents per pound will be necessary to permit a normal profit of four cents a pound for the payment of dividends to the investors in these copper enterprises.