

TABLE 1. WORLD REFINED COPPER PRODUCTION AND USAGE TRENDS

Thousand metric tonnes, copper

	2019	2020	2021	2022 p/	Jan-Dec			2023 p/			
					2022	2023	%ch.	Sep	Oct	Nov	Dec
World Copper Mine Production (Concentrate & SX-EW)	20,669	20,768	21,301	21,950	21,950	22,063	0.5%	1,882	1,935	1,897	1,962
World Copper Mine Capacity	24,328	25,197	26,247	27,041	27,041	28,247		2,341	2,427	2,356	2,442
Mine Capacity Utilization Rate (%)	85.0	82.4	81.2	81.2	81.2	78.1		80.4	79.7	80.5	80.3
Primary Refined Copper Production	20,152	20,829	20,815	21,248	21,248	22,375	5.3%	1,907	1,963	1,942	1,996
Secondary Refined Copper Production	4,007	3,843	4,149	4,153	4,153	4,551	9.6%	386	383	391	395
World Refined Copper Production (Primary & Secondary)	24,159	24,672	24,964	25,401	25,401	26,927	6.0%	2,293	2,345	2,333	2,391
Seasonally Adjusted World Refined Copper Production - monthly 1/					2,117	2,245		2,289	2,311	2,339	2,352
World Copper Refinery Capacity	29,565	30,216	30,733	31,426	31,426	32,263		2,666	2,760	2,677	2,772
Refinery Capacity Utilization Rate (%)	81.7	81.7	81.2	80.8	80.8	83.5		86.0	85.0	87.2	86.3
Secondary Refined as % in Total Refined Copper Production	16.6	15.6	16.6	16.4	16.4	16.9		16.8	16.3	16.8	16.5
World Refined Copper Usage 2/	24,321	24,953	25,216	25,835	25,835	27,013	4.6%	2,338	2,387	2,457	2,371
Seasonally Adjusted World Refined Copper Usage - monthly 1/					2,152	2,251		2,279	2,341	2,382	2,366
World Refined Copper Stocks (End of Period)	1,215	1,236	1,210	1,373	1,373	1,534		1,374	1,375	1,351	1,534
Period Stock Change	-12	21	-26	163	163	161		71	0	-23	183
Refined Copper Balance 3/	-162	-281	-252	-434	-434	-87		-45	-41	-123	20
Seasonally Adjusted Refined Balance 4/					-424	-75		10	-30	-43	-14
Refined Copper Balance Adjusted for Chinese bonded stock change 5/	-340	-171	-450	-561	-561	-113		-58	-64	-132	15
LME Copper Price 6/	6,000	6,181	9,317	8,797	8,797	8,478		8,271	7,940	8,174	8,394
Comex Copper Price 7/	272.10	280.29	424.94	400.37	400.37	385.33		372.29	359.96	371.84	385.15

p/ Preliminary

1/ See note below on seasonal adjustments. Figures in the year-to-date columns represent seasonally adjusted monthly averages.

2/ Apparent refined usage is used for the European Union (EU-15) instead of the accumulation of the individual countries' refined usage.

3/ Surplus or deficit is calculated using total refined production minus refined usage.

4/ Refined balance is calculated using seasonally adjusted total refined production minus seasonally adjusted refined usage.

5/ See note below on refined balance adjusted for Chinese bonded stock change.

6/ Averages for the period in US dollars per ton of copper.

7/ Averages for the period in US cents per pound of copper.

Note on refined balance adjusted for Chinese bonded stock change.

Beginning in January 2014 Bulletin, the International Copper Study Group (ICSG) introduced an additional line item for apparent world balance that includes an adjustment for assumed changes in Chinese bonded stocks. Historically, ICSG has only accounted for reported stock data in its statistics and therefore did not account for unreported stocks change in the calculation of apparent usage. In recent years anecdotal evidence has suggested that there have been substantial fluctuations in Chinese bonded stock levels and apparent consumption based on trade, production, and changes in exchange inventories may not adequately reflect industrial use in a given time period. ICSG acknowledges the distortion these unreported stock movements can cause in the calculation of the world copper refined balance and, effective with the January 2014 Bulletin, will include an additional line item - Refined World Balance Adjusted for Chinese Bonded Stock Changes. As there is no officially reported data for Chinese bonded stocks, ICSG will use an average of stock estimates provided by two consultants based on their ongoing research and analysis of the Chinese copper market to estimate the unreported inventory changes.

Note on seasonal adjustments:

The International Copper Study Group introduced seasonal adjustments in its supply usage table to help better assess the state of the copper market. The introduction of seasonally adjusted refined usage and refined balance figures was originally intended to account for the effects of variations in days per month and holiday periods in certain key copper using regions of the world. Starting with the April 2007 edition of the Copper Bulletin (January 2007 data), the International Copper Study Group will be using the U.S. Census Bureau's X-12 seasonal adjustment program to calculate seasonally adjusted refined usage, production, and balance figures in order to provide more analytically rigorous seasonally adjusted results. Seasonal adjustments have also been made for data from past years.

Each month the ICSG issues the above table in a Press Release which is also included in ICSG's web site:

www.icsg.org