

TABLE 1. WORLD REFINED COPPER PRODUCTION AND USAGE TRENDS

2011-2017

Thousand metric tonnes, copper

	2011	2012	2013	2014	2015	2016	2016	2017	2016		2017	
							p/	Jan-Feb	Nov	Dec	Jan	Feb
World Mine Production	15,964	16,691	18,185	18,431	19,132	20,216	3,119	3,060	1,728	1,787	1,628	1,433
World Mine Capacity	19,455	20,004	20,747	21,541	22,431	23,420	3,735	3,895	1,962	2,035	2,043	1,852
Mine Capacity Utilization (%)	82.1	83.4	87.7	85.6	85.3	86.3	83.5	78.6	88.1	87.8	79.7	77.4
Primary Refined Production	16,133	16,598	17,257	18,565	18,924	19,443	3,189	3,095	1,598	1,671	1,626	1,469
Secondary Refined Production	3,468	3,596	3,803	3,915	3,945	3,866	593	662	340	345	345	317
World Refined Production (Secondary+Primary)	19,601	20,194	21,060	22,480	22,870	23,309	3,782	3,757	1,938	2,016	1,972	1,785
Seasonally Adjusted Refined Production - monthly <sup>1/</sup>							1,960	1,946	1,921	1,927	1,983	1,909
World Refinery Capacity	23,558	24,444	25,779	26,680	26,750	27,129	4,362	4,470	2,259	2,340	2,346	2,124
Refineries Capacity Utilization (%)	83.2	82.6	81.7	84.3	85.5	85.9	86.7	84.0	85.8	86.1	84.0	84.0
Secondary Refined as % in Total Refined Prod.	17.7	17.8	18.1	17.4	17.3	16.6	15.7	17.6	17.5	17.1	17.5	17.8
World Refined Usage <sup>2/</sup>	19,713	20,473	21,396	22,880	23,041	23,429	3,738	3,608	1,954	2,014	1,916	1,692
Seasonally Adjusted World Refined Usage - monthly <sup>1/</sup>							1,984	1,915	1,900	1,978	1,961	1,869
World Refined Stocks End of Period	1,205	1,376	1,325	1,350	1,521	1,403	1,587	1,450	1,304	1,403	1,402	1,450
Period Stock Change	7	171	-52	25	171	-118	66	47	-55	99	-1	48
Refined Balance <sup>3/</sup>	-113	-279	-335	-400	-171	-120	44	149	-17	1	55	93
Seasonally Adjusted Refined Balance <sup>4/</sup>							-49	62	21	-51	22	40
Refined Balance Adjusted for Chinese bonded stock change <sup>5/</sup>	-174	289	-583	-424	-274	-107	122	254	-32	-11	80	173
LME Copper Price <sup>6/</sup>	8,811	7,950	7,322	6,862	5,494	4,863	4,529	5,839	5,443	5,666	5,737	5,942
Comex Copper Price <sup>7/</sup>	398.41	361.32	333.69	312.05	250.54	219.85	204.22	265.64	246.64	256.68	261.86	269.43

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 three 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:

<http://www.icsg.org>