

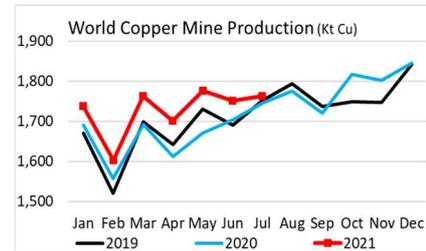


Copper: Preliminary Data for July 2021

The International Copper Study Group (ICSG) released preliminary data for July world copper supply and demand in its October 2021 Copper Bulletin. The Bulletin and ICSG online statistical database provide data, on a country basis, for copper mine, smelter, refined and semis production, copper refined usage, trade, stocks and prices. The bulletin is available for sale (annual subscription €550/€850 for orders originating from/outside institutions based in ICSG member countries).

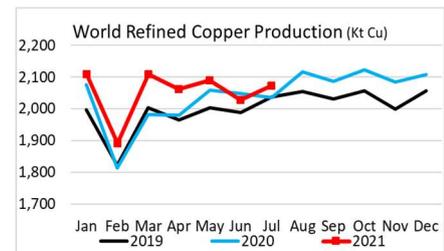
Preliminary data indicates that world copper mine production increased by 3.6% over the first seven months of 2021, with concentrate production increasing by around 5.5% and solvent extraction-electrowinning (SX-EW) declining by about 4.3%:

- World mine production started to recover in June 2020 as lockdown measures eased and the industry adapted to stricter health protocols. However, government imposed restrictions related to COVID-19 and preventative measures implemented by the industry to mitigate the impact of COVID-19 have continued to constrain output in a few countries this year.
- Production in Chile, the world's biggest copper mine producing country, was down by 1% in the first seven months of this year with a 2.2% growth in concentrate production being more than offset by an 9.8% decline in SX-EW output mainly due to lower SX-EW output at the Escondida mine.
- Output in Peru, the world's second biggest copper mine producing country, increased by 11% mainly because March-May production was up by 35% from a constrained March-May 2020 during which time the industry was severely impacted by a COVID-19 related country lockdown. Despite the recovery this year, production in the first seven months of 2021 was still 9% below that of the same period in 2019.
- Indonesian output increased by about 61% mainly due to the continued ramp-up of underground production at the Grasberg mine.
- Strong increases were also seen in the D.R.Congo and Panama due to additional output from new or expanded operations. Production in the United States remained essentially unchanged.



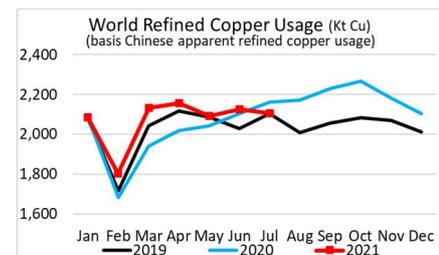
Preliminary data indicates that world refined copper production increased by about 2.6% in the first seven months of 2021 with primary production (electrolytic and electrowinning) up by 1.8% and secondary production (from scrap) up by 7%.

- Preliminary official Chinese refined production data indicates growth of 7%.
- Chilean total refined copper production (electrolytic and electrowinning) declined by 6.3% negatively impacted by a 9.8% reduction in electrowinning refined production.
- Refined production was up by 13.5% in the D.R. Congo due to the continued ramp-up of new or expanded SX-EW plants.
- Refined production increased by 10.5% in the United States mainly due to a recovery from 2020 operational issues at smelters.
- Preliminary data indicates falls in Brazil, Germany, Japan, Myanmar (SX-EW), Russia, Spain (SX-EW) and Sweden for various reasons including maintenance work, operational issues and the shutdown of SX-EW plants.
- Globally, secondary refined production (from scrap) increased by 7% with China being the biggest contributor to this growth.



Preliminary data indicates that world apparent refined copper usage increased by 3.3% in the first seven months of 2021:

- The COVID-19 related global lockdown has had a notable negative impact on the world economy and subsequently on key copper end-use sectors in all regions ex-China. Although usage started to recover in the 2nd half of 2020, global demand remains below pre-pandemic levels in most countries.
- World ex-China refined copper usage is estimated to have declined by about 9.5% in 2020. Usage over the first seven months of this year is estimated to have increased by about 7.5% compared to the same period of 2020 but is still 4.5% below that of the same period of 2019.
- Chinese apparent usage (excluding changes in bonded/unreported stocks) remained essentially unchanged.



Preliminary world refined copper balance in the first seven months of 2021 indicates an apparent deficit of about 138,000 t:

- In developing its global market balance, ICSG uses an apparent demand calculation for China that does not consider changes in unreported stocks [State Reserve Bureau (SRB), producer, consumer, merchant/trader, bonded]. To facilitate global market analysis, however, an additional line item - Refined World Balance Adjusted for Chinese Bonded Stock Changes - is included in the attached table that adjusts the world refined copper balance based on an average estimate of changes in bonded inventories provided by two consultants with expertise in China's copper market.
- Over the first seven months of 2021, the world refined copper balance, based on Chinese apparent usage (excluding changes in unreported stocks), indicated a deficit of about 138,000 t. The world refined copper balance adjusted for changes in Chinese bonded stocks indicated a market deficit of about 95,000 t.

Copper Prices and Stocks:

- Based on the average of estimates provided by two independent consultants, China's bonded stocks are thought to have increased by about 40,000 t in the first seven months of 2021 compared to the year-end 2020 level.
- As of the end of September 2021, copper stocks held at the major metal exchanges (LME, COMEX, SHFE) totalled 313,030 t, an increase of 61,855 t (+25%) from stocks held at the end of December 2020. Stocks were up at the LME (+105%) and down at COMEX (-27%) and SHFE (-41%).
- The average LME cash price for September was US\$ 9,324.07 /t, down 0.4% from the August average of US\$ 9,357.19 /t. The 2021 high and low copper prices through the end of September were US\$ 10,724.50 /t (on 10th May) and US\$ 7,755.50 /t (on 2nd Feb), respectively, and the year average was US\$ 9,188.25 /t (49% above the 2020 annual average).

(World Refined Copper Usage and Supply Trends table on next page)

Please visit the ICSG website www.icsg.org for further copper market related information.

World Refined Copper Usage and Supply Trends

Thousand metric tonnes, copper

	2018	2019	2020	2020	2021	2021			
				Jan-Jul	Apr	May	Jun	Jul	
World Mine Production	20,579	20,571	20,635	11,673	12,097	1,702	1,777	1,751	1,763
World Mine Capacity	24,073	24,184	24,794	14,343	15,029	2,127	2,207	2,144	2,225
Mine Capacity Utilization (%)	85.5	85.1	83.2	81.4	80.5	80.0	80.5	81.6	79.2
Primary Refined Production	20,028	19,987	20,635	11,747	11,953	1,718	1,739	1,680	1,729
Secondary Refined Production	4,035	4,028	3,875	2,247	2,408	343	350	347	345
World Refined Production (Secondary+Primary)	24,063	24,016	24,510	13,994	14,361	2,061	2,089	2,027	2,073
World Refinery Capacity	28,259	29,069	29,970	17,318	17,623	2,494	2,581	2,500	2,584
Refineries Capacity Utilization (%)	85.2	82.6	81.8	80.8	81.5	82.6	81.0	81.1	80.2
World Refined Usage 1/	24,480	24,405	24,989	14,035	14,499	2,156	2,091	2,125	2,105
World Refined Stocks End of Period	1,227	1,215	1,234	1,270	1,403	1,342	1,396	1,445	1,403
Period Stock Change	-148	-12	19	55	169	-23	54	49	-41
Refined Balance 2/	-417	-389	-479	-41	-138	-95	-2	-98	-31
Seasonally Adjusted Refined Balance 3/				-40	-148	-16	0	-68	1
Refined Balance Adjusted for Chinese bonded stock change 4/	-477	-567	-369	-64	-95	-84	15	-86	-49

Due to the nature of statistical reporting, the published data should be considered as preliminary as some figures are currently based on estimates and could change.

1/ Based on Chinese and EU apparent usage.

2/ Surplus/deficit is calculated using refined production minus refined usage.

3/ Surplus/deficit is calculated using seasonally adjusted refined production minus seasonally adjusted refined usage.

4/ For details of this adjustment see the paragraph of the press release on "World refined copper balance".