

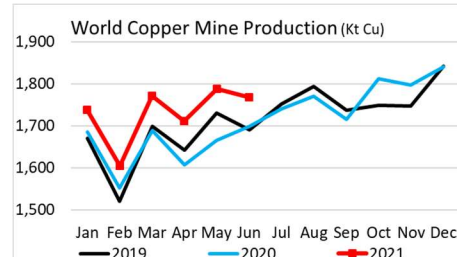


Copper: Preliminary Data for 1st Half 2021

The International Copper Study Group (ICSG) released preliminary data for June world copper supply and demand in its September 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).

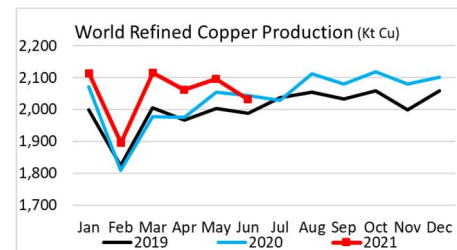
Preliminary data indicates that world copper mine production increased by 4.9% over the first Half of 2021, with concentrate production increasing by around 6.4% and solvent extraction-electrowinning (SX-EW) declining by about 1.5%:

- 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 1.2% in the first half of this year with a 2.5% growth in concentrate production being more than offset by an 11% decline in SX-EW output.
- Output in Peru, the world's second biggest copper mine producing country, increased by 14% 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, 1st half 2021 production was still 9% below that of 1st half 2019.
- Indonesian output increased by about 69% 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.



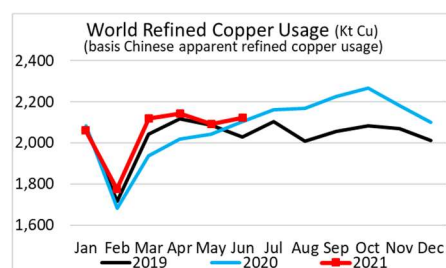
Preliminary data indicates that world refined copper production increased by about 3.2% in the first Half of 2021 with primary production (electrolytic and electrowinning) up by 3.5% and secondary production (from scrap) up by 1.7%.

- Preliminary official Chinese refined production data indicates growth of 6%.
- Chilean total refined copper production (electrolytic and electrowinning) declined by 7% as an increase of about 0.5% in electrolytic refined was more than offset by a 11% reduction in electrowinning refined production.
- In Africa, 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, and by 12% in Zambia, where output has recovered from smelters' operational issues and temporary shutdowns during 2019 and early 2020.
- Refined production increased by 14% in the United States mainly due to a recovery from 2020 operational issues at smelters.
- Preliminary data indicates falls in Brazil, Germany, Japan, 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 1.7% with China being the biggest contributor to this growth.



Preliminary data indicates that world apparent refined copper usage increased by 3.8% in the first Half 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% in 2020. Usage over the first half of this year is estimated to have increased by about 6% compared to the same period of 2020 but is still 4.7% below that of the first half 2019.
- Chinese apparent usage (excluding changes in bonded/unreported stocks) increased by around 1.5%.



Preliminary world refined copper balance in the first Half of 2021 indicates an essentially balanced market:

- 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 half of 2021, the world refined copper balance, based on Chinese apparent usage (excluding changes in unreported stocks), indicated a small deficit of about 2,000 t. The world refined copper balance adjusted for changes in Chinese bonded stocks indicated a market surplus of about 58,000 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 60,000 t in the first half of 2021 compared to the year-end 2020 level.
- As of the end of August 2021, copper stocks held at the major metal exchanges (LME, COMEX, SHFE) totalled 381,210 t, an increase 130,035 t (+52%) from stocks held at the end of December 2020. Stocks were up at the LME (+139%) and SHFE (+10%) and down at COMEX (-34%).
- The average LME cash price for August was US\$ 9,357.19 /t, down 0.8% from the July average of US\$ 9,433.59 /t. The 2021 high and low copper prices through the end of August 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\$ 9,170.36 /t (48% 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-Jun	Mar	Apr	May	Jun	
World Mine Production	20,579	20,571	20,575	9,899	10,380	1,771	1,711	1,788	1,767
World Mine Capacity	24,073	24,174	24,774	12,218	12,790	2,186	2,124	2,204	2,142
Mine Capacity Utilization (%)	85.5	85.1	83.1	81.0	81.2	81.0	80.5	81.1	82.5
Primary Refined Production	20,040	19,999	20,579	10,012	10,359	1,786	1,732	1,768	1,710
Secondary Refined Production	4,035	4,028	3,875	1,921	1,953	328	330	328	322
World Refined Production (Secondary+Primary)	24,075	24,028	24,454	11,933	12,313	2,114	2,063	2,096	2,032
World Refinery Capacity	28,259	29,069	29,970	14,769	15,039	2,574	2,494	2,581	2,500
Refineries Capacity Utilization (%)	85.2	82.7	81.6	80.8	81.9	82.1	82.7	81.2	81.3
World Refined Usage 1/	24,470	24,407	24,972	11,866	12,315	2,120	2,144	2,092	2,122
World Refined Stocks End of Period	1,227	1,215	1,234	1,329	1,434	1,362	1,337	1,388	1,434
Period Stock Change	-148	-12	19	114	200	83	-25	51	46
Refined Balance 2/	-395	-379	-518	67	-2	-6	-81	4	-90
Seasonally Adjusted Refined Balance 3/				27	-55	-42	-3	4	-68
Refined Balance Adjusted for Chinese bonded stock change 4/	-455	-557	-408	29	58	5	-70	21	-78

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".