

# COPPER (Cu)

## THE COMPANY'S INDUSTRY POSITION

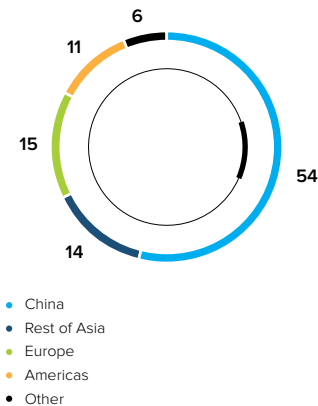
**No 11**

**IN THE COPPER MINING INDUSTRY (%)**



Sources: Wood Mackenzie, corporate reports, Company data

## REFINED COPPER CONSUMPTION BY REGION IN 2020 (%)



## KEY TRENDS IN THE COPPER MARKET

Copper was priced at USD 6,200/t early in 2020 but slumped to USD 4,600/t in March amid an escalating COVID-19 pandemic. However, already in April, when lockdowns were lifted and the economy started recovering, copper price trend reversed its trajectory to become positive. In the second half of the year, this price rally intensified bolstered by government support, further production recovery in China, growing investor optimism after positive results of coronavirus vaccine trials were announced, and expectations of accelerated road transport electrification.

Towards the year end, the positive price trend was driven by disruptions to mine operations in Latin American, a new policy of copper scrap recategorization in China, and expectations of additional green economy investments in the United States announced by the new administration. These developments contributed to the copper price peaking at USD 7,964/t in December 2020, a fresh high since 2013.

Despite the global economy taking a hit from the COVID-19 pandemic, global consumption of copper cathodes decreased by only 1% in 2020. This was primarily due to a 4% growth in China's consumption, as the Chinese economy posted a V-shape recovery following a two-month lockdown in early 2020, which boosted demand for copper in the second half of the year. Consumption ex-China slipped 7% in the reporting period.



Copper mine production decreased by 1.5% in 2020; however, the draw-down of copper concentrate inventories boosted refined copper output by 2%. As a result, the market flipped to a marginal surplus of less than 2% of annual consumption.

Stocks held in Shanghai Futures Exchange and London Metal Exchange warehouses kept growing in Q1 2020, peaking early in Q2, then starting to fall as the global economy recovered, and hitting record lows towards the year end amid lower global copper output and increased buying.

The LME copper price averaged in 2020

**6,181** USD/t  
up 3% from USD 6,000/t a year prior.

**AVERAGE ANNUAL COPPER PRICES (USD/T)**

2015	2016	2017	2018	2019	2020
5,494	4,863	6,166	6,523	6,000	6,181

Source: London Metal Exchange

**MARKET BALANCE**

In 2020, the refined copper market was close to balance, with a surplus of less than 2% of the total market volume, or 544 kt. In 2020, total exchange inventories dropped by 13% to 265 kt (304 kt at year-end 2019), or at little more than four

days of global consumption. The fall in exchange inventories was driven by stock relocation to non-exchange warehouses, mostly in China.

**REFINED COPPER MARKET BALANCE (MLN T)**



Sources: Company data, Wood Mackenzie

## CONSUMPTION

Given its high electrical and thermal conductivity, ductility and corrosion resistance, copper is widely used in various industries. Up to 75% of refined copper produced globally is used for manufacturing electrical conductors, including various types of cable and wire. Key copper-consuming industries include construction, electrical and electronic equipment manufacturing, power industry, transport, mechanical engineering, various equipment and consumer goods production.

China remains the largest copper consumer globally, accounting for 54% of the total in 2020. Despite the pandemic, the Chinese economy posted a V-shape recovery as early as Q1 2020. China imported 4.5 mln t of refined copper in 2020, up 30% y-o-y. Copper scrap imports fell 35% to 0.8 mln t due to China's tighter requirements for imported scrap quality. Copper concentrate imports decreased marginally by 1% to 5.4 mln t. Refined copper consumption in China rose by 4% to 12.5 mln t.

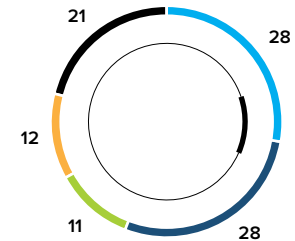
Copper demand in developed markets was shrinking in 2020, with consumption in Europe (the Group's key market for copper cathodes) declining by 5.7% in 2020, in North America by 7.2%, in Middle East by 8.9%, and in Asia excluding China by 10%. Russia increased its copper consumption by 2%.

In 2020, global refined copper consumption totalled

**23.4 mln t**  
down 1%, or 0.3 mln t, y-o-y.

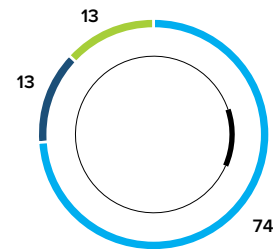
### REFINED COPPER CONSUMPTION BY INDUSTRY

END USE BY INDUSTRY (%)



- Construction
- Power grids
- Heavy engineering
- Transport
- Consumer goods and equipment

FIRST USE (%)



- Wire rod
- Pipe
- Rolled products

Sources: Company data, Wood Mackenzie

## PRODUCTION

In 2020, global refined copper output rose by 2%, or 0.4 mln t, y-o-y to 23.9 mln t. The biggest growth came from China, which is firmly on track to deliver smelting and refining capacity expansions. In 2020, refined copper production in China grew by 1% to 9.16 mln t, while its share in total global output reached 38%. Copper ore mined locally supports just 20% of total Chinese production, with the remaining 80% covered by imported copper concentrates and scrap copper.

Refined copper output increased by 1% in Asia on the back of growth in Japan and the Philippines; dropped 8% in North America, driven primarily by declines in the US market; rose by 2% in South America (Chile and Peru); and went up by 3% in Europe (led by Germany, Finland and Bulgaria).

In 2020, global copper mine production fell 1.5% to 20.6 mln t due mostly to the coronavirus pandemic and disruptions to Chilean and Peruvian mine operations caused by strikes

In 2020, mined production in Chile, the world's leading producer of copper, declined by 1% y-o-y to 5.8 mln t due to the coronavirus pandemic and short-lived strikes. Production in Peru dropped 13.5% to 2 mln t, also due to the pandemic.

A 6% growth in Africa's mined production to 2.59 mln t was mainly due to higher output from mines in the Democratic Republic of the Congo and Zambia.

China ramped up copper mine production by 4% to 1.8 mln t in 2020, while mined production in Indonesia grew 26% to 0.5 mln t driven by the continued ramp-up of underground operations at Grasberg. Mongolia and Myanmar posted marginal output increases.

Production in North America decreased by 2% to 2.58 mln t – down 3% and 4.5% in the USA and Canada, respectively, and up 1% in Mexico.

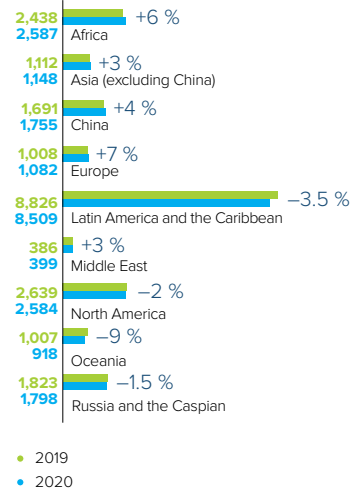
Russia's copper mine production increased by 2% in 2020.

### REFINED COPPER PRODUCTION IN 2020 (MLN T)



Sources: Company data, Wood Mackenzie

### COPPER MINE OUTPUT IN 2020 (KT)



Sources: Company data, Wood Mackenzie