



Release of ICSG 2020 Statistical Yearbook

The International Copper Study Group released its 2020 Statistical Yearbook covering world copper supply and demand data for the 10-year period 2010-2019. The Yearbook is an excellent tool that provides an assessment of how the market has evolved over the last 10 years, including trends in global copper production, usage, stocks and trade matrixes. **The Statistical Yearbook is included in the ICSG Monthly Bulletin annual subscription and is also available for sale as a separate report in PDF/Excel (€200 for orders originating from ICSG member countries and €400 for other orders).**

World copper mine production rose from 16 million metric tonnes (Mt) in 2010 to 20.5 Mt in 2019, with concentrate production rising by around 31% (3.9 MT) and solvent extraction-electrowinning (SX-EW) by 19% (0.6 Mt):

- The compound annual growth rate (CAGR) for world copper mine production averaged 2.9%/y over the 10-year period. However, average growth in the last three years has been lower at only 0.2% due to a series of operational constraints that negatively affected output in 2017 and 2019.
- There was a small decrease in the SX-EW share of total mine production, from 20.8% in 2010 to 19.3% in 2019. SX-EW annual output declined by about 500,000 t in Chile in the 10-year period but increased by around 730,000 t in the D. R. Congo.
- Notable changes in annual mine production levels over 2010-2019 included increases of 1.2 Mt in Peru (CAGR 8.5%), 500,000 t in China (CAGR 4%), 920,000 t in the D.R. Congo (CAGR 16%), and 500,000 t in Mexico (CAGR 14%). However, annual production in Chile, by far the largest world copper mine producer, increased by only 370,000 t (CAGR 0.8%). Consequently, the country's share of world production declined from 34% to 28% with Peru (the second largest copper mine producer) increasing its share from 8% to 12%. The revival of the African copper belt led to an increase in African annual output of around 1 Mt.

World refined copper production rose from 19 Mt in 2010 to 24.1 Mt in 2019, with a CAGR of 2.7%.

- Primary (electrolytic and SX-EW) and secondary (from scrap) refined production increased by 2.7%/y and 2.4%/y, respectively.
- The share of secondary production in total refined production fluctuated around 17% in the 10-year period.
- Over the 10-year period, China's annual refined production more than doubled from 4.5 Mt to 9.8 Mt (CAGR 9%), while production in Chile (the second ranked refined copper producer) declined by 30% from 3.2 Mt to 2.3 Mt (CAGR -4%). However, it should be noted that Chilean electrolytic refined output was constrained in 2019 due to temporary smelter shutdowns whilst undergoing upgrades to comply with new environmental regulations.
- In the United States, Japan and the EU compound annual growth rates averaged -0.5%, -0.1% and -0.1%, respectively.
- Expansion of electrolytic refinery capacity in Iran, Russia, South Korea and Turkey and electrowinning capacity in Mexico, Myanmar and Spain led to increases in annual refined production capacity in these countries.
- With the start-up of several SX-EW plants, annual refined production in the D.R. Congo grew from around 260,000 t in 2010 to 1.1 Mt in 2019 (CAGR 17.5%).

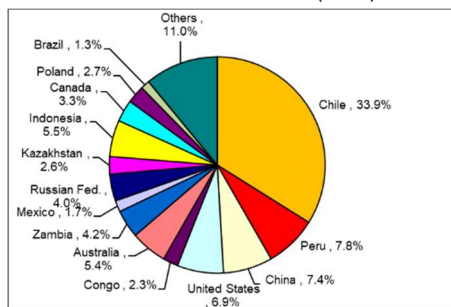
World apparent refined usage increased by 28% over the 10-year period, with a CAGR of 2.8%.

- Growth was driven by China¹ where apparent usage over the 10-year period grew by about 5.4 Mt (CAGR 6.3%). China's share of world usage grew to 51% in 2019 compared to 39% in 2010.
- World usage excluding China remained essentially unchanged over the 10-year period.
- Usage presented a CAGR of -0.8% in the EU, -0.9% in Japan, and +0.4% in the United States over the 10-year period.
- With the expansion of semis production capacity, refined copper usage increased significantly in the United Arab Emirates (CAGR 12%) and in Vietnam (CAGR 15%) and to a lesser extent in some South-East Asian countries (Indonesia 1.5%/y, Malaysia 3.5%/y and Thailand 5%/y). In contrast, closures of semis plants led to significant declines in usage in Egypt and Australia.

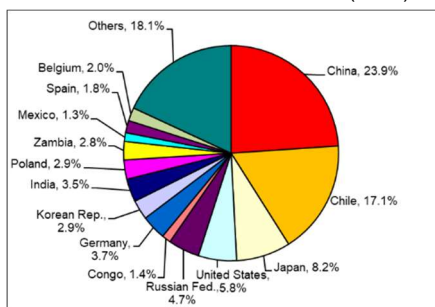
¹ ICSG uses an apparent refined usage calculation for China that does not take into account changes in unreported stocks [State Reserve Bureau (SRB), producer, consumer, traders, bonded].

(World Refined Copper Usage and Supply Trend Charts – by country)

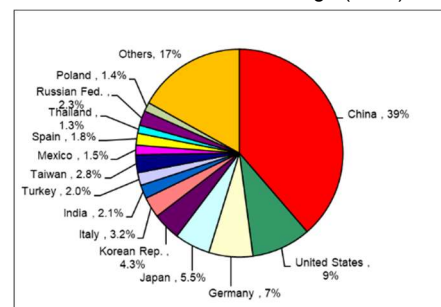
Share in World Mine Production (2010)



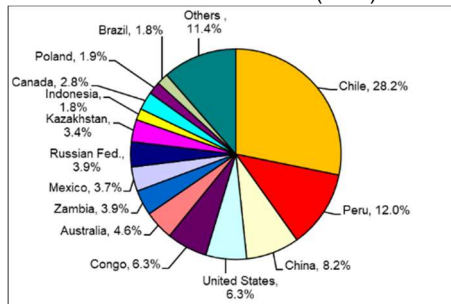
Share in World Refined Production (2010)



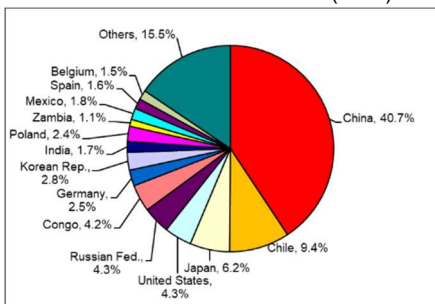
Share in World Refined Usage (2010)



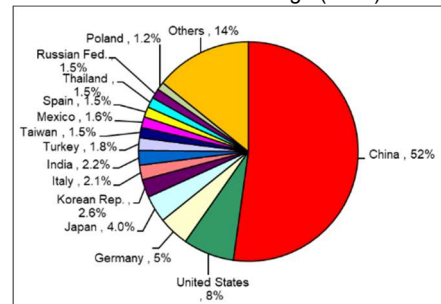
Share in World Mine Production (2019)



Share in World Refined Production (2019)



Share in World Refined Usage (2019)



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

World Refined Copper Usage and Supply Trends, 2010-2019

Thousand metric tonnes, copper

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
World Mine Production	15,987	15,960	16,687	18,185	18,422	19,153	20,393	20,058	20,565	20,528
World Mine Capacity	19,288	19,486	20,026	20,807	21,594	22,374	23,480	23,993	24,062	24,154
Mine Capacity Utilization (%)	83	82	83	87	85	86	87	84	85	85
Primary Refined Production	15,744	16,133	16,598	17,255	18,575	18,892	19,490	19,485	20,023	20,018
Secondary Refined Production	3,236	3,468	3,596	3,803	3,915	3,945	3,866	4,063	4,035	4,028
World Refined Production (Secondary+Primary)	18,981	19,601	20,194	21,058	22,490	22,838	23,356	23,548	24,058	24,047
World Refinery Capacity	22,987	23,483	24,444	25,733	26,609	26,742	26,983	27,545	27,979	28,794
Refineries Capacity Utilization (%)	83	83	83	82	85	85	87	85	86	84
Secondary Refined as % in Total Refined Prod.	17.1	17.7	17.8	18.1	17.4	17.3	16.6	17.3	16.8	16.8
World Refined Usage 1/	19,130	19,704	20,468	21,401	22,908	23,057	23,487	23,705	24,484	24,427
World Refined Stocks End of Period (4)	1,198	1,205	1,376	1,325	1,334	1,505	1,365	1,375	1,227	1,220
Period Stock Change	-178	7	171	-52	10	171	-140	10	-148	-7
Refined Balance 2/	-149	-103	-274	-343	-417	-219	-131	-157	-426	-381
Refined Balance Adjusted for Chinese bonded stock change 3/	28	-165	293	-590	-441	-322	-119	-154	-486	-559

1/ Based on EU apparent usage and Chinese apparent usage.

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

3/ In developing its global market balance, ICSG uses an apparent demand calculation for China that does not take into account changes in unreported stocks [State Reserve Bureau (SRB), producer, consumer, bonded]. To facilitate global market analysis, however, an additional line item—Refined World Balance Adjusted for Chinese Bonded Stock Changes—is included in the table that adjusts the world refined copper balance based on an average estimate of changes in bonded inventories provided by three consultants with expertise in China's copper market.

4/ Excludes unreported stocks