Release of ICSG 2017 Statistical Yearbook

The International Copper Study Group released its 2017 Statistical Yearbook covering world copper supply and demand data for the 10-year period 2007-2016. The Yearbook is an excellent tool that allows an assessment of how the market has evolved over the last 10 years, and shows which countries increased or lost share in global copper production, usage and trade. The Statistical Yearbook is included as part of the ICSG Monthly Bulletin annual subscription and is also available for sale as a separate issue (€200 for orders originating from ICSG member countries and €300 for other orders).

World copper mine production rose by 31% during the 10-year period from 15.5 million metric tonnes (Mt) in 2007 to 20.4 Mt in 2016: both copper in concentrates and solvent extraction-electrowinning (SX-EW) production rose by around 30%.

- The SX-EW share of total mine production remained at 19% in 2016 compared with 2007.
- Although the mine capacity utilization rate averaged around 85% over the 10-year period, over the 2009-2011 period, as a result of numerous factors including labour unrest, accidents, technical problems, and world financial crisis-related temporary shutdowns/production cuts and delays in expanded/new supply, capacity utilization averaged 83% and mine production grew by a compound annual growth rate (CAGR) of only 0.9%.
- Mine production growth averaged 3.1%/y over the 10-year period but when excluding 2009-2011, growth was around 5%/y.
- Notable changes in mine production over 2007-2016 included increases of 1.16 Mt in Peru, 950,000 t in China, 805,000 t in the Democratic Republic of Congo (DRC) and 430,000 t in Mexico. Production in Chile, by far the largest world copper mine producer, remained unchanged. Consequently, the country's share in world production declined from 36% to 27% with Peru and China increasing their shares to 12% and 9% from 8% and 6% respectively. The revival of the African copper belt led to an increase in African copper mine output of around 1.1 Mt over the period.
- Output from countries that were minor producers in 2007, or where copper mining production was non-existent, increased by around 395,000 t.

World refined production rose by 30% from 17.9 Mt in 2007 to 23.3 Mt in 2016, with a CAGR of 3%.

- Primary (electrolytic and SX-EW) and secondary (from scrap) refined production increased by 28% and 41%, respectively.
- The share of secondary production in total refined production increased gradually from 15% in 2007 to around 18% in 2011-2013 before declining to below 17% in 2016.
- Over the full 10-year period, China's annual refined production increased from 3.5 Mt to 8.4 Mt, while production in Chile (the second leading refined copper producer) declined by 11% to 2.6 Mt.
- The expansion of electrolytic refinery capacity in India and Bulgaria and electrowon capacity in Mexico led to significant increases in annual output in these countries.
- With the start-up of several SX-EW plants production in the DRC grew from around 36,000 t in 2007 to 730,000 t in 2016. In North America, production fell by 5% to 2 Mt due to refinery closures in the United States and Canada. Refined production in the EU rose by 10% to 2.7 Mt over the same period.

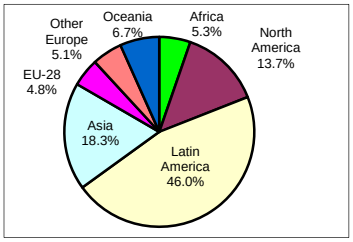
World apparent refined usage increased by 30% (CAGR of 3%) over the 10-year period from 18 Mt in 2007 to 23.5 Mt in 2016.

- Growth was driven by China[1] where apparent usage over the 10-year period more than doubled, increasing by around 6.7 Mt and its share of world usage grew to 50% from 27% in 2007.
- Conversely, world usage excluding China decreased by 10% (1.3 Mt) during the period, mainly due to the decline in refined usage in three of the major copper using regions, namely the EU (-20%), Japan (-22%), and the United States (-15%).
- However, usage increased significantly in the MENA region (116%) and in Asia ex-China/Japan region (21%).

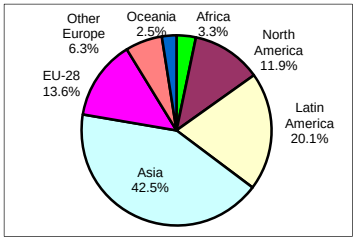
[1] In developing its global market balance, ICSG uses an apparent demand calculation for China that does not take into account changes in unreported stocks [State Reserve Bureau (SRB), producer, consumer, merchant/trader, bonded]. To facilitate global market analysis, however, an additional line item—Refined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

(World Refined Copper Usage and Supply Trends)

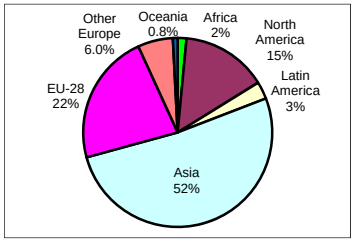
Share in World Mine Production (2007)



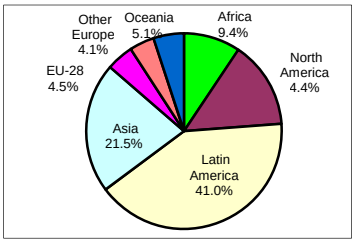
Share in World Refined Production (2007)



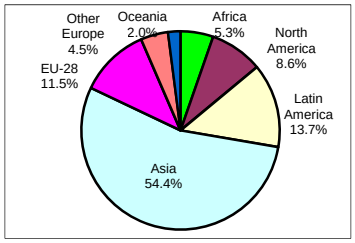
Share in World Refined Usage (2007)



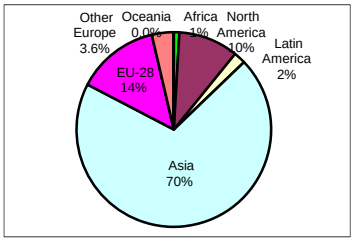
Share in World Mine Production (2016)



Share in World Refined Production (2016)



Share in World Refined Usage (2016)



World Refined Copper Usage and Supply Trends, 2007-2016

Thousand metric tonnes, copper

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World Mine Production	15,508	15,537	15,945	15,990	15,964	16,691	18,185	18,432	19,148	20,357
World Mine Capacity	17,921	18,563	19,153	19,252	19,455	20,014	20,767	21,562	22,473	23,483
Mine Capacity Utilization (%)	87	84	83	83	82	83	88	85	85	87
Primary Refined Production	15,155	15,366	15,386	15,744	16,133	16,598	17,255	18,576	18,925	19,473
Secondary Refined Production	2,739	2,825	2,847	3,236	3,468	3,596	3,803	3,915	3,945	3,866
World Refined Production (Secondary+Primary)	17,895	18,191	18,234	18,981	19,601	20,194	21,058	22,491	22,871	23,339
World Refinery Capacity	21,421	22,193	22,810	23,057	23,558	24,444	25,779	26,681	26,765	27,119
Refineries Capacity Utilization (%)	84	82	80	82	83	83	82	84	85	86
Secondary Refined as % in Total Refined Production	15.3	15.5	15.6	17.1	17.7	17.8	18.1	17.4	17.3	16.6
World Refined Usage 1/	18,036	17,888	17,899	19,141	19,713	20,473	21,396	22,880	23,041	23,493
World Refined Stocks End of Period	970	1,102	1,376	1,198	1,205	1,376	1,325	1,350	1,521	1,391
Period Stock Change	-105	132	275	-178	7	171	-52	25	171	-130
Refined Balance 2/	-141	304	334	-160	-113	-279	-337	-389	-170	-154
Refined Balance Adjusted for Chinese Bonded Stock Change 3/	NA	NA	443	17	-174	289	-585	-413	-273	-141
LME Copper Price 4/	7,126	6,952	5,164	7,539	8,811	7,950	7,322	6,862	5,494	4,863

1/ Based on EU apparent usage and Chinese apparent usage. 2/ Surplus/deficit is calculated using refined production minus refined usage. 3/ For details of this adjustment see footnote one in the last paragraph of this press release. 4/ Annual average in US dollars per tonne of copper.