



Release of ICSG 2016 Statistical Yearbook

The International Copper Study Group released its 2016 Statistical Yearbook covering world copper supply and demand data for the 10-year period 2006-2015. It is an excellent tool that allows an assessment of how the market evolved in the last 10 years, and shows which countries increased or lost share in the 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).

According to ICSG data, world copper mine production rose by 28% during the 10-year period from 15 million metric tonnes (Mt) in 2006 to 19.1 Mt in 2015: copper in concentrates rose by 25% while solvent extraction-electrowinning (SX-EW) production rose by 39%. The SX-EW share of total mine production increased from 19% in 2006 to 20.5% in 2015. Although the mine capacity utilization rate averaged around 85% over this 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 0.7%. Mine production growth averaged 2.8%/y over the 10-year period but when excluding 2009-2011, growth was around 4.7%/y. Notable changes in mine production over 2006-2015 included increases of around 800,000 t in both China and the Democratic Republic of Congo (DRC), 650,000t in Peru and 400,000t in Chile. Chile remains by far the biggest world copper mine producer but its share in world production declined from around 36% to 30% with Peru and China both increasing their share to 9% from 7% and 6% respectively. The revival of the African copper belt led to an increase in African copper mine output of 1.2 Mt. Output from countries that were minor producers in 2006, or where copper mining production was non-existent, increased by around 410,000 t.

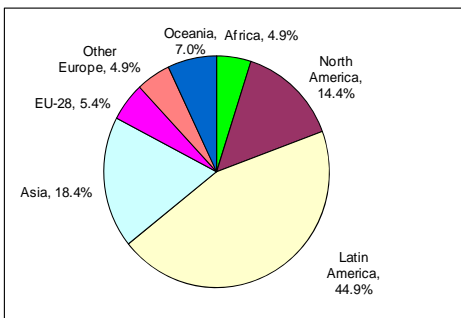
Over the 10-year period, annual world refined production rose by 32% from 17.3 Mt in 2006 to 22.9 Mt in 2015, with a CAGR of 3.2%. Primary (electrolytic and SX-EW) and secondary (from scrap) refined production increased by 29% and 51%, respectively. The share of secondary production in total refined production increased gradually from 15% in 2006 to around 18% in 2011-2013 declining to around 17% in 2014/2015. Over the full 10-year period, China's annual refined production increased from 3Mt to almost 8 Mt, while production in Chile (the second leading refined copper producer) declined by 4.5% to 2.7 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 25,000 t in 2006 to 800,000 t in 2015. In North America, production fell by 10% to 1.9 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 annual apparent refined copper usage increased by 36% (CAGR of 3.5%) over the 10-year period from 16.9 Mt to 23 Mt. Growth was driven by China¹ where apparent usage over the 10-year period tripled, increasing by around 7.7 Mt and its share of world usage grew to around 48% from around 20% in 2006. Conversely, world usage excluding China decreased by 12% (1.6 Mt) during the period, mainly due to the decline in refined usage in three of the major copper using regions, namely the EU (-23%), Japan (-22%), and the United States (-15%). However, usage increased significantly in the MENA region (140%) and in Asia ex-China/Japan region (15%).

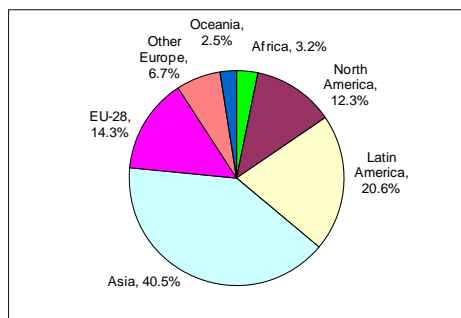
¹ In developing its global market balance, ICSG uses an apparent demand calculation for China—the leading global consumer of copper accounting for more than 45% of world demand—that does not take into account changes in unreported stocks [State Reserve Bureau (SRB), producer, consumer and merchant/trader]. To facilitate global market analysis, however, an additional line item—Refined World Balance Adjusted for Chinese Bonded Stock Changes—is included in the world summary on the next page 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 table on next page)

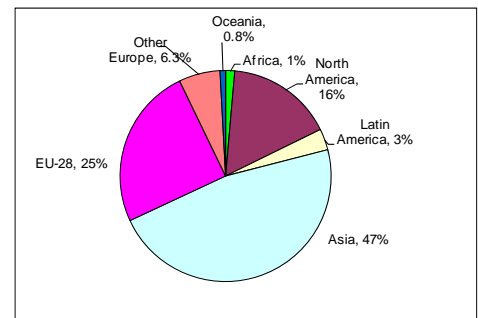
Share in World Mine Production (2006)



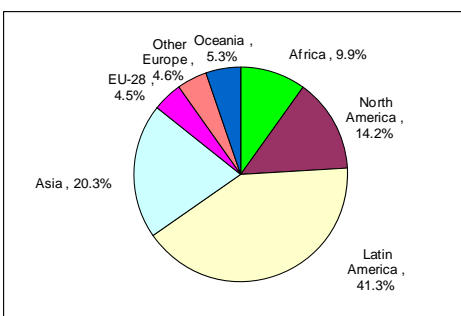
Share in World Refined Production (2006)



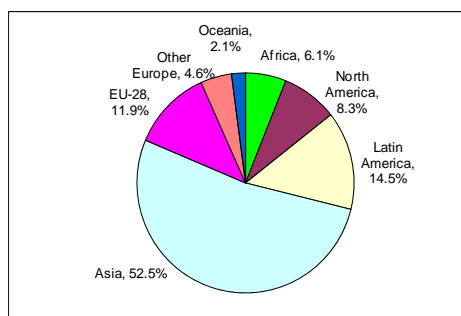
Share in World Refined Usage (2006)



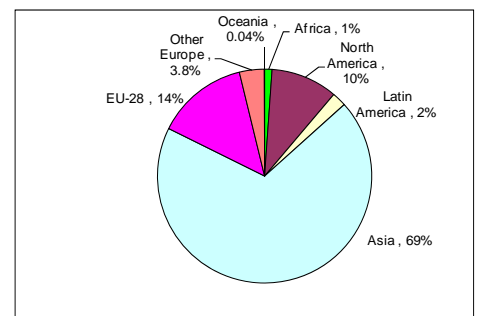
Share in World Mine Production (2015)



Share in World Refined Production (2015)



Share in World Refined Usage (2015)



World Refined Copper Usage and Supply Trends, 2006-2015

Thousand metric tonnes, copper

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
World Mine Production	14,983	15,508	15,537	15,945	15,990	15,964	16,687	18,171	18,435	19,128
World Mine Capacity	16,810	17,805	18,447	19,099	19,198	19,407	19,923	20,698	21,508	22,553
Mine Capacity Utilization (%)	89	87	84	83	83	82	84	88	86	85
Primary Refined Production	14,675	15,155	15,366	15,386	15,744	16,133	16,606	17,256	18,568	18,928
Secondary Refined Production	2,613	2,739	2,825	2,847	3,236	3,468	3,596	3,803	3,915	3,945
World Refined Production (Secondary+Primary)	17,288	17,895	18,191	18,234	18,981	19,601	20,203	21,060	22,483	22,873
World Refinery Capacity	20,344	21,578	22,353	23,140	23,387	23,898	24,784	26,104	27,045	27,331
Refineries Capacity Utilization (%)	85	83	81	79	81	82	82	81	83	84
Secondary Refined as % in Total Refined Prod.	15	15	16	16	17	18	18	18	17	17
World Refined Usage 1/	16,926	18,036	17,888	17,899	19,141	19,713	20,473	21,396	22,880	23,035
World Refined Stocks End of Period	1,075	970	1,102	1,376	1,198	1,205	1,376	1,325	1,350	1,521
Period Stock Change	265	-105	132	275	-178	7	171	-52	25	171
Refined Balance 2/	363	-141	304	334	-160	-113	-270	-336	-397	-163
Refined Balance Adjusted for Chinese bonded stock change 3/	NA	NA	NA	443	17	-174	298	-583	-421	-266
LME Copper Price 4/	6,727	7,126	6,952	5,164	7,539	8,811	7,950	7,322	6,862	5,494

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 ton of copper.