Mineral Industry Surveys

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COPPER IN JUNE 2022

In June 2022, domestic mine output of recoverable copper was 104,000 metric tons (t). The average daily mine production was 3,480 t, essentially unchanged from that in May 2022 and June 2021 (fig. 1). Year-to-date recoverable mine production was 624,000 t, 5% greater than that through June 2021 (table 2).

In the first six months of 2022, the largest increases in mined copper output were at Rio Tinto Group's Bingham Canyon Mine in Utah and Freeport-McMoRan Inc.'s Morenci and Safford Mines in Arizona. At Bingham Canyon, Rio Tinto transitioned to mining the south wall of the open pit in 2021 and mined the south wall for the entire first half of 2022, resulting in higher copper ore grades and recovery rates compared with those in 2021. Year-to-date production of copper contained in concentrates through June 2022 was 81,000 t, an increase of 14,000 t from that through June 2021 (Rio Tinto Group, 2022, p. 14, 27). Output of recoverable copper in the first half of 2022 rose by approximately 10,000 t at Morenci and 5,000 t at Safford from those in the first half of 2021, reflecting higher mining and milling rates (Freeport-McMoRan Inc., 2022, p. 5, II). The production increases at these three operations were partially offset by overall lower output from ASARCO LLC's three mines in Arizona, where combined copper production through June 2022 decreased by 7,330 t from that through June 2021, attributed by the company to lower ore grades at the Mission Mine and labor shortages in the United States (Grupo México, S.A.B. de C.V., 2021b, p. 6; 2022a, p. 6; 2022b, p. 7). At Capstone Copper Corp.'s Pinto Valley Mine in Arizona, year-to-date copper production was 2,230 t less than that in the first six months of 2021 because of plant maintenance and lower ore grades (Capstone Copper Corp., 2022, p. 21).

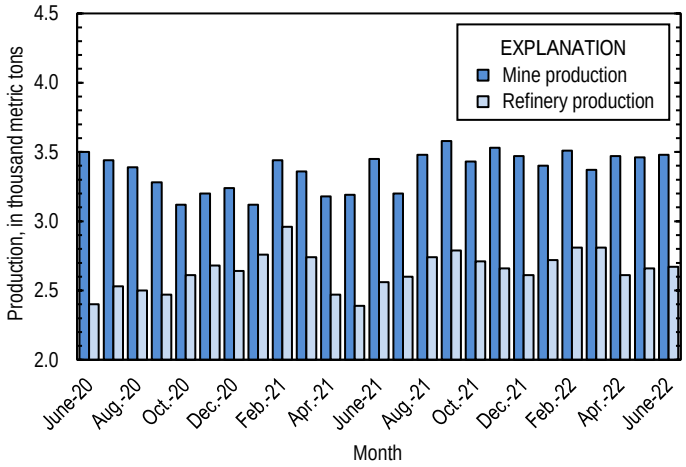

Figure 1. Average daily copper mine (recoverable) and refinery (primary and secondary) production in the United States from June 2020 through June 2022.

Owing to indefinite closures of ASARCO LLC's smelter in Arizona and electrolytic refinery in Texas since October 2019, smelter and electrolytic refinery production reported to the U.S. Geological Survey in June 2022 were withheld to avoid disclosing company proprietary data. Smelter and electrolytic refinery output in tables 3 and 4 are estimates based on information in annual and quarterly company reports. As of June 2022, ASARCO had not publicly announced when operations were expected to resume. The company's three copper mines and two electrowon refineries in Arizona continued to operate during the smelter and electrolytic refinery stoppages (Grupo México, S.A.B. de C.V., 2021a, p. 83).

Estimated smelter output in the United States was 30,000 t in June 2022. Year-to-date estimated smelter production was 195,000 t, 8% greater than that through June 2021 (table 3).

Total U.S. refinery production was 80,100 t in June 2022; data for electrolytic and electrowon output, as well as refined production from scrap, are reported in table 4. Average daily refinery production was 2,670 t, essentially unchanged from that in May and 4% higher than that in June 2021 (fig. 1). Year-to-date refinery output was 491,000 t, an increase of 3% relative to the same time period in 2021.

Publicly-reported production of refined copper at Rio Tinto's electrolytic refinery in Magna, UT (which did not include output from purchased and tolled third-party concentrates) was 72,900 t through June 2022, a decrease of 9,200 t from that through June 2021 owing to unplanned stoppages and labor shortages at the smelter. Freeport-McMoRan did not publicly report production of refined copper cathode at its electrolytic refinery in El Paso, TX. However, Freeport's total domestic production of copper in concentrates, most of which was refined at the El Paso facility, rose by 19% compared with that in the first six months of 2021 (Freeport-McMoRan Inc., 2022, p. III; Rio Tinto Group, 2022, p. 14, 27).

Prices

In June 2022, the average Commodity Exchange Inc. (COMEX) copper price was $4.13 per pound, a decline of 3% from $4.25 per pound in May and 6% lower than $4.40 per pound in June 2021 (fig. 2, table 11). The average U.S. dealers buying price of number 2 copper scrap was $3.22 per pound in June 2022, a slight decrease from $3.28 per pound in May and 7% less than $3.46 per pound in June 2021 (fig. 2, table 12).

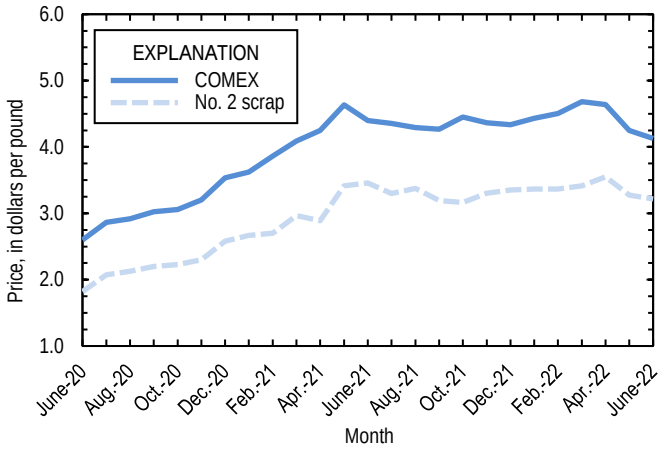

Figure 2. Monthly average Commodity Exchange Inc. (COMEX) copper price and no. 2 copper scrap U.S. dealers buying price from June 2020 through June 2022. Sources: Fastmarkets-AMM and S&P Global Platts Metals Week.

Stocks

Refined copper stocks in the United States totaled 125,000 t at the end of June 2022, a slight decrease from those in May and an increase of 49% compared with those in June 2021. COMEX stocks fell by 5,110 t (7%) and London Metal Exchange Ltd. stocks in U.S. warehouses were unchanged from those at the end of May (fig. 3, table 10).

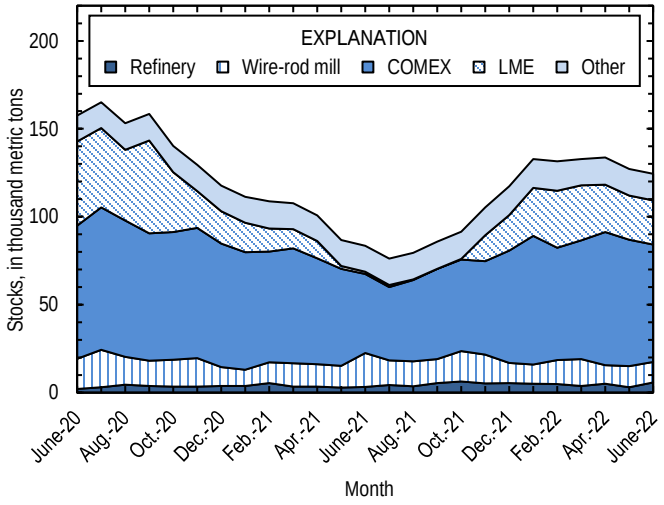

Figure 3. Domestic refined copper stocks at end of month, by type, from June 2020 through June 2022. Sources: London Metal Exchange Ltd., S&P Global Platts Metals Week, and U.S. Geological Survey.

Industry News

Chile.—Following the discovery of a leak on May 31 and subsequent repairs, Antofagasta plc restarted the concentrates pipeline at the Los Pelambres Mine on June 26. The company anticipated that the disruption would result in 15,000 t of lost copper output. In 2021, Los Pelambres was one of the leading copper mines in the world and produced 325,000 t of copper contained in concentrates (Antofagasta plc, 2022a, p. 70; 2022b).

On June 6, the Corporación Nacional del Cobre de Chile (Codelco) halted operations at the Ventanas smelter to conduct maintenance after approximately 100 people in nearby towns showed signs of exposure to sulfur dioxide emissions. On June 17, Codelco announced that it would permanently close the facility after the Government of Chile modified a law that required the company to smelt concentrates produced by the Empresa Nacional de Minería at Ventanas (Corporación Nacional del Cobre de Chile, 2022; Harris, 2022).

Peru.—At the Las Bambas Mine, majority-owned by MMG Ltd., copper production restarted on June 11 following a 51-day shutdown, the longest in the history of the mine. Protestors from nearby communities who had been occupying the mine site agreed to a 30-day truce to allow for negotiations between community and company leaders (Rochabrun and Aquino, 2022). Las Bambas has frequently been disrupted by protestors since starting operations in late 2015. In 2021, Las Bambas was one of the leading global copper mines and produced 290,000 t of copper in concentrates (MMG Ltd., 2022, p. 22).

United States.—On June 17, Aurubis AG began construction of a secondary copper smelter in Augusta, GA. The facility was expected to be fully operational in the first half of 2024 and to process 90,000 metric tons per year (t/yr) of complex copper-containing scrap, such as printed circuit boards and copper cables (Aurubis AG, 2022).

Wieland Group announced on June 30 that it broke ground for a secondary copper refinery in Shelbyville, KY. The facility was expected to produce 100,000 t/yr of refined copper from copper and copper-alloy scrap for use in manufacturing and semi-finished products (Toto, 2021; Wieland Group, 2022).

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TABLE 1

SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES[1]

(Metric tons, copper content, unless otherwise specified)

	Source table[2]	2021[p]	2022			
			April	May	June	January–June
Production:						
Primary (from ore):						
Mine, recoverable[3]	(2)	1,230,000	104,000	107,000	104,000	624,000
Smelter[e, 4]	(3)	360,000	30,000 [r]	30,000 [r]	30,000	195,000
Refinery:						
Electrolytic[e]	(4)	360,000	30,000 [r]	30,000 [r]	30,000	195,000
Electrowon	(4)	563,000	45,000	49,100	46,700	275,000
Total	(4)	923,000	75,000 [r]	79,100 [r]	76,700	470,000
Secondary (from copper-base scrap):[5]						
Refineries[6]	(5)	48,900	3,250	3,220	3,370	20,600
Ingot makers[e, 7]	(5)	51,600	4,300	4,300	4,300	25,800
Brass and wire-rod mills	(5)	655,000	53,700	53,400	53,500	323,000
Foundries, etc.[e, 7]	(5)	38,800	3,230	3,230	3,230	19,400
Consumption:						
Reported, refined copper	(7)	1,770,000	153,000	149,000	147,000	897,000
Apparent, primary refined and copper from old scrap[8]	(8)	1,960,000	150,000 [r]	170,000 [r]	167,000	969,000
Reported, purchased copper-base scrap (gross weight)	(9)	919,000	74,800	74,400	74,700	451,000
Stocks at end of period:						
Refined[9]	(10)	117,000	134,000	127,000	125,000	125,000
Blister and anodes	(10)	16,100	16,100	11,500	13,100	13,100
Price, U.S. producers cathode (cents per pound)[10]	(11)	432.264	473.388	434.929	422.540	453.068
Imports for consumption:[11]						
Ore and concentrates	(13)	11,000	609 [r]	--	1,440	4,930
Refined	(13)	919,000	64,800	74,300	75,900	438,000
Exports:[11]						
Ore and concentrates	(14)	347,000	23,100	29,400	24,200	156,000
Refined	(14)	47,600	2,820	2,890	1,720	15,700

[e]Estimated. [p]Preliminary. [r]Revised.

[1]Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

[2]Numbers in parentheses refer to the tables where these data are located.

[3]Includes the recoverable copper content of concentrates (of copper and other metals), copper produced by solvent extraction and electrowinning, and copper recovered as precipitates.

[4]May contain small quantities of copper from scrap.

[5]Copper recovered from copper-base scrap and converted to refined metal, alloys, and other forms. Does not include copper recovered from scrap other than copper-base.

[6]Electrolytically refined and fire-refined copper.

[7]Plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on the monthly average of 2020 annual data.

[8]Primary refined copper production plus copper recovered from old scrap (of copper-base and non-copper-base) plus refined imports for consumption minus refined exports, including adjustments for changes in refined stocks. Old scrap consists of copper items used by consumers.

[9]Stocks of refined copper at brass mills, exchanges, refineries, wire-rod mills, and other manufacturers.

[10]Source: S&P Global Platts Metals Week. Sum of the monthly average Commodity Exchange Inc. (COMEX) price and New York dealers cathode premium; reflects the delivered spot price of copper cathode to U.S. consumers by U.S. producers.

[11]Source: U.S. Census Bureau. See tables 13 and 14 for listings of the relevant Harmonized Tariff Schedule (imports) and Schedule B (exports) codes.

TABLE 2
MINE PRODUCTION OF COPPER IN THE UNITED STATES[1]

(Metric tons)

Period	Recoverable copper[2]			Contained copper		
	Arizona	Others[3]	Total	Electrowon	Concentrates[4]	Total
2021:[p]						
January–June	428,000	167,000	595,000	273,000	336,000	608,000
June	74,200	29,200	103,000	46,600	59,000	106,000
July	68,200	31,000	99,200	47,200	54,100	101,000
August	76,000	31,800	108,000	51,300	58,800	110,000
September	75,400	32,100	107,000	49,000	60,800	110,000
October	73,100	33,200	106,000	50,400	57,900	108,000
November	73,500	32,300	106,000	45,800	62,300	108,000
December	75,000	32,400	107,000	46,900	63,000	110,000
January–December	869,000	360,000	1,230,000	563,000	692,000	1,260,000
2022:						
January	72,200	33,200	105,000	45,500	62,200	108,000
February	66,500	31,600	98,100	40,400	60,000	100,000
March	73,100	31,200	104,000	48,600	57,900	106,000
April	71,500	32,700	104,000	45,000	61,400	106,000
May	74,600	32,600	107,000	49,100	60,100 [r]	109,000
June	72,400	32,000	104,000	46,700	59,800	107,000
January–June	430,000	193,000	624,000	275,000	361,000	637,000

[p]Preliminary. [r]Revised.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes the recoverable copper content of concentrates (of copper and other metals), copper produced by solvent extraction and electrowinning, and copper recovered as precipitates.
[3]Includes production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.
[4]Includes the contained copper content of concentrates (of copper and other metals) and copper recovered as precipitates.

TABLE 3
COPPER PRODUCED AT SMELTERS IN
THE UNITED STATES[1, 2]

(Metric tons, copper content)

Period	Anode production[e, 3]
2021:[p]	
January–June	180,000
June	25,000
July	30,000
August	30,000
September	30,000
October	30,000
November	30,000
December	30,000
January–December	360,000
2022:	
January	35,000
February	35,000
March	35,000
April	30,000 [r]
May	30,000 [r]
June	30,000
January–June	195,000

[e]Estimated. [p]Preliminary. [r]Revised.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Primary production. May contain small quantities of copper from scrap.
[3]To avoid disclosing company proprietary data, monthly smelter production data are estimated based on information in annual and quarterly public company reports and do not reflect actual production reported to the U.S. Geological Survey.

TABLE 4
U.S. PRODUCTION OF REFINED COPPER[1]

(Metric tons)

Period	From primary materials			From scrap[3]	Total refined
	Electrolytic[e, 2]	Electrowon	Total primary		
2021:[p]					
January–June	180,000	273,000	453,000	25,700	478,000
June	25,000	46,600	71,600	5,060	76,700
July	30,000	47,200	77,200	3,340	80,500
August	30,000	51,300	81,300	3,750	85,000
September	30,000	49,000	79,000	4,590	83,500
October	30,000	50,400	80,400	3,540	84,000
November	30,000	45,800	75,800	3,990	79,800
December	30,000	46,900	76,900	4,060	80,900
January–December	360,000	563,000	923,000	48,900	972,000
2022:					
January	35,000	45,500	80,500	3,990	84,400
February	35,000	40,400	75,400	3,280	78,700
March	35,000	48,600	83,600	3,490	87,100
April	30,000 [r]	45,000	75,000 [r]	3,250	78,300
May	30,000 [r]	49,100	79,100 [r]	3,220	82,300
June	30,000	46,700	76,700	3,370	80,100
January–June	195,000	275,000	470,000	20,600	491,000

[e]Estimated. [p]Preliminary. [r]Revised.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]To avoid disclosing company proprietary data, monthly electrolytically refined production data are estimated based on information in annual and quarterly public company reports and do not reflect actual production reported to the U.S. Geological Survey.
[3]Electrolytically refined and fire-refined copper.

TABLE 5
COPPER RECOVERED AS REFINED COPPER AND IN ALLOYS AND OTHER FORMS FROM PURCHASED COPPER-BASE SCRAP IN THE UNITED STATES[1, 2]

(Metric tons)

Period	Refineries[3]		Ingot makers[e, 4]		Brass and wire-rod mills		Foundries, etc.[e, 4]		Total[5]
	New scrap[e]	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2021:[p]									
January–June	10,100	15,600	2,360	23,500	311,000	22,100	4,580	14,800	404,000
June	1,680	3,390	394	3,910	50,100	3,430	763	2,470	66,100
July	1,680	1,660	394	3,910	50,400	3,330	763	2,470	64,600
August	1,680	2,080	394	3,910	50,500	3,540	763	2,470	65,400
September	1,680	2,910	394	3,910	51,300	3,130	763	2,470	66,500
October	1,680	1,860	394	3,910	51,900	3,490	763	2,470	66,400
November	1,680	2,320	394	3,910	50,900	3,080	763	2,470	65,500
December	1,680	2,380	394	3,910	48,500	2,480	763	2,470	62,600
January–December	20,100	28,800	4,730	46,900	614,000	41,100	9,160	29,600	795,000
2022:									
January	1,680	2,310	394	3,910	51,800	4,470	763	2,470	67,800
February	1,680	1,600	394	3,910	48,100	3,530	763	2,470	62,500
March	1,680	1,810	394	3,910	50,900	3,950	763	2,470	65,900
April	1,680	1,570	394	3,910	49,900	3,750	763	2,470	64,400
May	1,680	1,540	394	3,910	49,800	3,640	763	2,470	64,100
June	1,680	1,690	394	3,910	49,800	3,710	763	2,470	64,300
January–June	10,100	10,500	2,360	23,500	300,000	23,000	4,580	14,800	389,000

[e]Estimated. [p]Preliminary.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]New scrap refers to material generated during the manufacturing process. Old scrap consists of copper items used by consumers.

[3]Electrolytically refined and fire refined from scrap based on source of material at smelter or refinery level.

[4]Plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on the monthly average of 2020 annual data.

[5]Does not include an estimate, based on 2020 annual data, of 2,670 tons per month from new scrap and 1,870 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6

U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES[1]

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2021:[p]						
January–June	445,000	694,000	445,000	693,000	28,600	19,100
June	74,200	119,000	74,000	119,000	28,600	19,100
July	74,600	112,000	74,800	114,000	28,400	17,000
August	74,600	117,000	74,500	113,000	28,600	21,200
September	74,000	118,000	74,300	120,000	28,300	18,800
October	74,600	115,000	74,400	110,000	28,600	23,400
November	74,500	115,000	74,300	110,000	28,800	29,200
December	74,400	86,100	74,200	95,100	29,100	20,200
January–December	892,000	1,360,000	892,000	1,360,000	29,100	20,200
2022:						
January	74,300	117,000	74,300	114,000	29,100	25,400
February	76,000	103,000	75,800	107,000	29,300	19,300
March	76,900	118,000	77,000	116,000	29,300	21,500
April	76,300	117,000	76,100	112,000	29,500	26,200
May	74,200	112,000	74,300	116,000	29,400	21,900
June	74,800	111,000	74,900	115,000	29,300	17,200
January–June	453,000	679,000	452,000	681,000	29,300	17,200

[p]Preliminary.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7
U.S. CONSUMPTION OF REFINED COPPER[1]

(Metric tons)

Period	Brass mills	Wire-rod mills	Other plants[e, 2]	Total
2021:[p]				
January–June	207,000	657,000	31,100	896,000
June	34,200	112,000	5,180	151,000
July	34,400	108,000	5,180	147,000
August	34,500	113,000	5,180	153,000
September	34,700	112,000	5,180	152,000
October	34,700	109,000	5,180	148,000
November	34,300	110,000	5,180	150,000
December	34,700	81,800	5,180	122,000
January–December	415,000	1,290,000	62,100	1,770,000
2022:				
January	34,900	111,000	5,180	151,000
February	34,800	101,000	5,180	141,000
March	36,600	114,000	5,180	155,000
April	34,600	113,000	5,180	153,000
May	34,900	109,000	5,180	149,000
June	34,800	107,000	5,180	147,000
January–June	211,000	655,000	31,100	897,000

[e]Estimated. [p]Preliminary.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Chemical plants, foundries, ingot makers, and miscellaneous manufacturers. These plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on the monthly average of 2020 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER[1]

(Metric tons)

Period	Primary refined copper production	Copper in old scrap[2]	Refined imports for consumption[3]	Refined exports[3]	Refined stock change during period	Apparent consumption[4]
2021:[p]						
January–June	453,000	87,200	436,000	28,400	-34,200	982,000
June	71,600	15,100	69,600	6,880	-3,100	152,000
July	77,200	13,200	57,100	5,270	-7,320	150,000
August	81,300	13,900	105,000	1,830	3,260	195,000
September	79,000	14,300	90,700	2,300	6,480	175,000
October	80,400	13,600	92,300	3,490	5,550	177,000
November	75,800	13,600	60,000	2,630	13,900	133,000
December	76,900	13,100	77,300	3,630	11,900	152,000
January–December	923,000	169,000	919,000	47,600	-513	1,960,000
2022:						
January	80,500	15,000	140,000	2,530	15,500	218,000
February	75,400	13,400	34,300	3,110	-1,320	121,000
March	83,600	14,000	48,700	2,590	1,350	142,000
April	75,000 [r]	13,600	64,800	2,820	794	150,000 [r]
May	79,100 [r]	13,400	74,300	2,890	-6,470	170,000 [r]
June	76,700	13,600	75,900	1,720	-2,560	167,000
January–June	470,000	83,000	438,000	15,700	7,290	969,000

[p]Preliminary. [r]Reivsed.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Copper recovered from old scrap (of copper-base and non-copper-base) and converted to refined metal, alloys, and other forms. Includes reported monthly production and estimates for annual reporters based on the monthly average of 2020 annual data. Old scrap consists of copper items used by consumers.

[3]Source: U.S. Census Bureau. Includes Harmonized Tariff Schedule (imports) and Schedule B (exports) codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

[4]Primary refined copper production plus copper in old scrap plus refined imports for consumption minus refined exports minus refined stock change during period.

TABLE 9

U.S. CONSUMPTION OF PURCHASED COPPER-BASE SCRAP[1, 2]

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers[e, 3]		Brass and wire-rod mills[4]		Foundries, etc.[e, 3]		Total
	New scrap[e]	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2021:[p]									
January–June	10,400	16,100	6,300	27,600	359,000	23,200	5,380	17,400	466,000
June	1,730	3,490	1,050	4,600	58,200	3,680	897	2,900	76,600
July	1,730	1,710	1,050	4,600	58,500	3,520	897	2,900	74,900
August	1,730	2,140	1,050	4,600	58,700	3,750	897	2,900	75,800
September	1,730	3,000	1,050	4,600	59,300	3,260	897	2,900	76,800
October	1,730	1,920	1,050	4,600	59,900	3,630	897	2,900	76,700
November	1,730	2,390	1,050	4,600	59,000	3,240	897	2,900	75,800
December	1,730	2,450	1,050	4,600	56,500	2,610	897	2,900	72,800
January–December	20,700	29,700	12,600	55,200	711,000	43,200	10,800	34,800	919,000
2022:									
January	1,730	2,380	1,050	4,600	59,800	4,610	897	2,900	78,000
February	1,730	1,650	1,050	4,600	56,200	3,720	897	2,900	72,800
March	1,730	1,870	1,050	4,600	59,200	4,250	897	2,900	76,500
April	1,730	1,620	1,050	4,600	58,100	3,980	897	2,900	74,800
May	1,730	1,590	1,050	4,600	57,800	3,810	897	2,900	74,400
June	1,730	1,740	1,050	4,600	57,900	3,880	897	2,900	74,700
January–June	10,400	10,900	6,300	27,600	349,000	24,200	5,380	17,400	451,000

[e]Estimated. [p]Preliminary.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]New scrap refers to material generated during the manufacturing process. Old scrap consists of copper items used by consumers.

[3]Plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on the monthly average of 2020 annual data.

[4]Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
COPPER STOCKS IN THE UNITED STATES AT END OF PERIOD[1]

(Metric tons, copper content)

Period	Blister and anodes	Refined copper						
		Refineries	Wire-rod mills	Brass mills	Other[e, 2]	COMEX[3]	LME[4]	Total refined
2021:[p]								
June	10,300	3,230	19,300	7,950	6,850	45,000	1,180	83,500
July	12,300	4,410	14,000	8,190	6,850	41,600	1,180	76,200
August	12,000	3,620	14,200	8,330	6,850	46,100	400	79,500
September	10,200	5,400	13,700	8,670	6,850	51,200	125	86,000
October	15,700	6,400	17,200	8,640	6,850	52,100	325	91,500
November	15,900	5,250	16,300	9,080	6,850	53,200	14,700	105,000
December	16,100	5,440	11,500	9,500	6,850	63,800	20,200	117,000
2022:								
January	11,800	5,000	10,900	9,530	6,850	73,300	27,200	133,000
February	13,300	4,870	13,700	9,860	6,850	63,900	32,300	131,000
March	12,200	3,690	15,400	8,160	6,850	67,400	31,300	133,000
April	16,100	4,990	10,600	8,620	6,850	75,800	26,800	134,000
May	11,500	3,090	12,000	8,330	6,850	71,800	25,100	127,000
June	13,100	5,800	11,700	8,330	6,850	66,700	25,100	125,000

[e]Estimated. [p]Preliminary.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Chemical plants, foundries, ingot makers, and miscellaneous manufacturers. These plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on yearend 2020 stocks.
[3]Commodity Exchange Inc.
[4]London Metal Exchange Ltd., U.S. warehouses.

TABLE 11
AVERAGE PRICES FOR REFINED COPPER IN THE UNITED STATES
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	COMEX first position[1]	U.S. producers cathode[2]	LME grade A cash[3]
2021:			
June	439.832	448.082	436.012
July	435.479	443.779	427.900
August	429.230	437.543	424.435
September	426.538	434.888	422.916
October	445.112	453.612	443.497
November	436.574	445.074	442.914
December	433.320	441.820	433.140
Year	424.306	432.264	422.496
2022:			
January	443.113	451.613	443.364
February	450.211	458.711	450.870
March	468.228	477.228	464.329
April	463.763	473.388	461.863
May	424.929	434.929	424.657
June	412.540	422.540	409.684
January–June	443.797	453.068	442.461

[1]Listed as "COMEX high grade first position." COMEX refers to the Commodity Exchange Inc.
[2]Sum of "COMEX high grade first position" and "NY dealer premium cathode." Reflects the delivered spot price of copper cathode to U.S. consumers by U.S. producers.
[3]LME refers to the London Metal Exchange Ltd.

Source: S&P Global Platts Metals Week.

TABLE 12
AVERAGE BUYING PRICES FOR COPPER SCRAP IN THE UNITED STATES

(Cents per pound)

Period	Brass mills no. 1 scrap	Refiners no. 2 scrap	Dealers	
			No. 2 scrap	Red brass turnings and borings
2021:				
June	421.77	381.68	345.50	230.50
July	417.36	374.12	330.00	227.00
August	410.36	368.41	337.50	238.00
September	409.62	368.38	319.00	229.00
October	430.88	390.64	316.50	222.00
November	423.05	383.05	330.50	222.00
December	420.45	380.45	335.00	230.00
Year	408.14	369.04	314.79	212.63
2022:				
January	433.10	393.50	336.50	235.00
February	440.32	399.84	336.50	225.00
March	459.30	423.17	341.50	217.00
April	454.35	418.85	355.00	211.50
May	414.90	379.40	327.50	196.50
June	401.81	366.31	321.50	185.00
January–June	433.96	396.85	336.42	211.67

Source: Fastmarkets-AMM.

TABLE 13

U.S. IMPORTS FOR CONSUMPTION OF UNMANUFACTURED COPPER[1]

(Metric tons, copper content)

Country or locality	Ore and concentrates[2]			Matte, ash, and precipitates[3]			Blister and anodes[4]			Refined[5]		
		2022			2022			2022			2022	
	2021	June	January–June	2021	June	January–June	2021	June	January–June	2021	June	January–June
Belgium	--	--	--	236	--	97	--	--	--	29	--	2
Bolivia	--	--	--	--	--	--	--	--	--	763	--	--
Brazil	--	--	--	--	--	--	--	--	--	5,720	--	--
Canada	11,000	1,430	4,920	651	24	186	(6)	--	(6)	141,000	10,700	55,500
Chile	--	--	--	--	--	--	--	--	--	613,000	45,800	296,000
China	--	--	--	--	--	--	--	--	(6)	654	216	599
Congo (Kinshasa)	--	--	--	--	--	--	--	--	--	22,200	580	8,910
Finland	--	--	--	--	--	--	371	--	74	35	--	39
Germany	--	--	--	155	--	94	(6)	--	--	2,150	309	1,710
Japan	1	(6)	(6)	483	--	--	1	(6)	(6)	1,440	31	653
Mexico	--	--	--	8	--	2	(6)	--	--	87,300	10,700	47,100
Peru	--	--	--	--	--	--	--	--	--	28,500	7,510	26,600
Russia	--	--	--	--	--	--	--	--	--	3,900	--	--
South Africa	--	--	--	--	--	--	--	--	--	277	--	--
Zambia	--	--	--	--	--	--	--	--	--	11,400	--	1,230
Other	10	9	9	49	--	14	12	(6)	17	155	43	95
Total	11,000	1,440	4,930	1,580	24	392	384	(6)	92	919,000	75,900	438,000

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Harmonized Tariff Schedule of the United States (HTS) code 2603.00.0010. Includes copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

[3]HTS codes 2620.30.0010 and 7401.00.0000. Includes copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

[4]HTS code 7402.00.0000.

[5]HTS codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

[6]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 14
U.S. EXPORTS OF UNMANUFACTURED COPPER[1]

(Metric tons, copper content)

Country or locality	Ore and concentrates[2]			Matte, ash, and precipitates[3]			Blister and anodes[4]			Refined[5]		
		2022			2022			2022			2022	
	2021	June	January–June	2021	June	January–June	2021	June	January–June	2021	June	January–June
Belgium	246	--	37	6,120	510	3,020	1,490	29	150	--	--	--
Canada	39,500	3,490	17,100	16,200	997	8,240	18,800	284	753	24,700	463	8,170
China	65,600	4,440	26,600	548	--	28	171	--	20	3,190	472	2,020
Dominican Republic	202	9	72	--	6	6	--	--	--	10	--	(6)
Finland	783	--	--	--	--	--	--	--	--	--	--	--
Germany	784	--	--	430	--	39	190	1	21	20	--	1
Hong Kong	2	--	--	44	--	(6)	310	--	11	9	--	--
India	--	--	--	30	--	--	433	--	414	--	--	(6)
Italy	--	--	--	--	--	--	113	1	68	22	--	5
Japan	6,350	--	3,690	760	47	247	17	17	18	11	(6)	3
Korea, Republic of	2,370	10	48	171	21	81	1,320	266	867	30	--	--
Malaysia	5	92	98	47	--	48	188	20	79	13	9	10
Mexico	228,000	15,000	103,000	33	--	1	258	17	193	19,100	773	5,290
Philippines	2,350	--	2,320	1	--	(6)	39	--	60	--	--	35
Singapore	--	--	--	300	--	28	92	--	40	22	--	6
Slovakia	--	--	--	1,450	248	745	--	--	--	--	--	--
Spain	--	--	--	1,130	136	817	20	--	22	(6)	--	(6)
Taiwan	1,490	--	--	19	8	25	291	--	40	282	--	22
Trinidad and Tobago	--	--	--	--	--	--	157	--	--	--	--	--
Other	92	1,220	2,800	208	156	617	499	38	262	125	1	91
Total	347,000	24,200	156,000	27,500	2,130	13,900	24,400	673	3,020	47,600	1,720	15,700

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Schedule B of the United States code 2603.00.0010. Includes copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

[3]Schedule B codes 2620.30.0000, 7401.00.0010, and 7401.00.0050. Includes copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

[4]Schedule B code 7402.00.0000.

[5]Schedule B codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

[6]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP[1]

(Metric tons, gross weight)

Country or locality	Unalloyed[2]			Alloyed[3]		
		2022			2022	
	2021	June	January–June	2021	June	January–June
Bahamas	--	--	--	608	48	387
Bolivia	114	--	--	442	--	57
Canada	19,900	1,730	9,740	48,200	4,010	21,400
Cayman Islands	--	--	--	219	12	102
Colombia	174	20	98	643	--	86
Costa Rica	729	47	347	1,480	74	733
Dominican Republic	1,550	146	827	2,720	168	1,280
Ecuador	88	12	24	277	1	43
El Salvador	--	--	--	583	47	579
Germany	210	14	122	191	4	6
Guatemala	--	--	--	484	20	177
Honduras	75	3	12	907	78	336
Jamaica	7	--	7	159	46	243
Mexico	12,600	908	5,630	43,800	3,730	21,500
Panama	1,040	168	704	496	58	236
Peru	19	--	--	439	--	185
Suriname	254	61	221	58	6	30
Uruguay	481	7	40	58	12	22
Venezuela	--	--	--	675	3	24
Vietnam	114	--	62	64	--	50
Other	301	(4)	89	2,060	151	1,280
Total	37,700	3,120	17,900	105,000	8,460	48,800

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Harmonized Tariff Schedule of the United States (HTS) codes 7404.00.3020 and 7404.00.6020.

[3]HTS codes 7404.00.3045, 7404.00.3055, 7404.00.3065, 7404.00.3090, 7404.00.6045, 7404.00.6055, 7404.00.6065, and 7404.00.6090.

[4]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 16

U.S. EXPORTS OF COPPER SCRAP[1]

(Metric tons, gross weight)

Country or locality	Unalloyed[2]							Alloyed[3]				
		2022							2022			
		No. 1		No. 2		Other			Segregated		Unsegregated	
	2021	June	January–June	June	January–June	June	January–June	2021	June	January–June	June	January–June
Austria	1,250	--	--	--	450	--	--	193	--	--	--	--
Belgium	20,700	1,440	8,510	765	5,230	612	3,870	8,520	175	798	1,470	4,150
Canada	61,000	--	--	--	--	5,980	32,300	53,900	--	--	4,300	22,700
Chile	2,380	--	21	--	--	--	--	345	--	--	--	--
China	195,000	7,850	41,200	3,540	27,800	9,220	66,000	43,300	2,400	11,200	658	4,960
Germany	19,100	1,130	5,770	177	602	58	1,120	15,300	334	1,070	1,550	7,440
Greece	15,000	447	3,020	36	79	261	1,850	2,140	--	149	166	1,060
Hong Kong	23,100	48	722	286	6,400	383	4,110	7,570	--	160	102	2,770
India	12,800	1,250	4,670	266	1,310	675	5,030	39,600	2,810	10,900	2,900	17,200
Japan	19,900	286	1,790	1,860	10,500	149	1,530	7,490	203	786	253	2,730
Korea, Republic of	47,200	1,480	8,480	1,110	6,510	923	6,330	17,100	403	2,700	324	4,980
Malaysia	63,900	438	2,300	452	1,610	772	9,370	88,200	712	5,810	2,360	15,200
Mexico	3,590	226	1,500	--	--	--	65	4,640	185	943	413	2,380
Netherlands	2,950	471	3,190	--	296	--	699	569	--	20	59	1,060
Pakistan	476	311	1,010	9	154	42	51	24,400	220	572	2,230	12,600
Poland	11,300	380	1,190	--	137	1,100	5,410	2,280	--	39	--	426
Russia	1,410	--	--	--	39	--	77	766	--	--	--	38
Slovakia	1,850	114	866	--	--	--	--	1,760	193	1,670	--	120
Spain	2,960	220	1,510	104	125	--	866	7,070	100	1,000	522	2,540
Sweden	1,080	--	--	--	--	37	295	2,480	--	--	199	864
Taiwan	13,800	279	1,910	148	1,490	743	5,030	6,310	139	626	20	959
Thailand	9,750	506	1,910	--	341	1,590	10,400	35,900	162	1,250	3,650	19,500
United Arab Emirates	1,770	--	630	2	23	20	20	3,320	(4)	(4)	705	3,080
Other	6,440	222	1,410	42	344	41	306	5,020	89	306	872	3,010
Total	539,000	17,100	91,600	8,790	63,400	22,600	155,000	378,000	8,120	40,000	22,800	130,000

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Schedule B of the United States codes 7404.00.0010 and 7404.00.0015 (no. 1), 7404.00.0025 (no. 2), and 7404.00.0030 (other).

[3]Schedule B codes for segregated alloyed copper scrap are 7404.00.0041, 7404.00.0046, 7404.00.0051, 7404.00.0056, 7404.00.0061, 7404.00.0066, and 7404.00.0075. Schedule B codes for unsegregated alloyed copper scrap are 7404.00.0085 and 7404.00.0095.

[4]Less than ½ unit.

Source: U.S. Census Bureau.