

Mineral Industry Surveys

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COPPER IN MARCH 2019

In March 2019, U.S. mine production of recoverable copper was 106,000 metric tons (t). The average daily mine production was 3,410 t, a slight decrease from that in February and 10% higher than that in March 2018 (fig. 1). Year-to-date recoverable mine output through March 2019 was 300,000 t, an increase of 4% relative to the same period in 2018 (table 2).

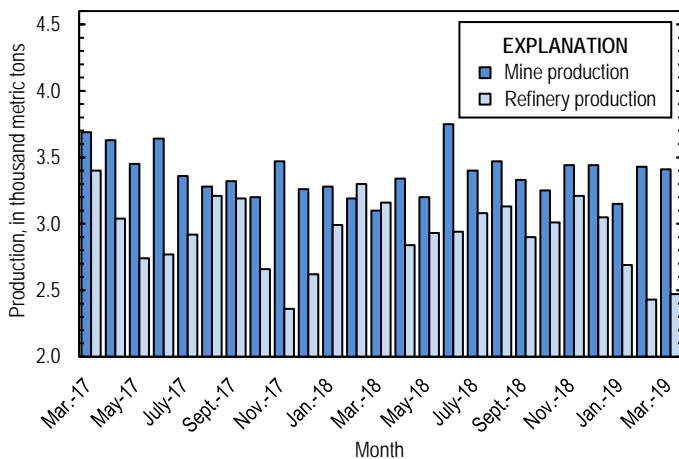


Figure 1. Average daily U.S. copper mine (recoverable) and refinery production from March 2017 through March 2019.

At Rio Tinto plc’s (United Kingdom) Bingham Canyon Mine in Utah, copper production in the first quarter of 2019 was 48% greater than that in the first quarter of 2018 owing to mining in a higher grade area of the pit (Rio Tinto plc, 2019, p. 5). Capstone Mining Corp. (Canada) reported that improvements in the crushing and milling circuits at the Pinto Valley Mine in Arizona resulted in a 30% increase in mined copper output through March 2019 compared with that through the same period in 2018 (Capstone Mining Corp., 2019). These increases were partially offset by overall lower production at the seven U.S. operations of Freeport-McMoRan Inc. (Phoenix, AZ) in Arizona and New Mexico, where total copper output through March 2019 declined by 3% relative to the first 3 months of 2018 (Freeport-McMoRan Inc., 2019, p. 4). These three

companies accounted for 83% of the year-to-date mined copper production through March 2019.

Smelter production in March 2019 was 37,000 t. The average daily smelter output was 1,190 t, 89% more than that in February and a decrease of 11% compared with the daily average in March 2018. Year-to-date output through March 2019 was 89,400 t, 35% less than that through March 2018 (table 3).

Total refinery production in the United States was 76,400 t in March 2019; data for electrolytic and electrowon output, as well as refined production from scrap, are in table 4. The average daily total refinery production was 2,470 t, a slight increase from that in February and 22% lower than that in March 2018 (fig. 1). Year-to-date refinery production through March 2019 was 228,000 t, a decline of 20% relative to the same period in 2018 (table 4). Smelter and refinery output in the first quarter of 2019 were affected by a scheduled maintenance shutdown at the Rio Tinto smelter in Utah and unplanned maintenance at the Freeport-McMoRan smelter in Arizona (Freeport-McMoRan Inc., 2019, p. 3; Rio Tinto plc, 2019, p. 5).

Prices

The average March 2019 COMEX spot copper price was \$2.90 per pound, a slight increase from \$2.86 per pound in February and 5% lower than \$3.07 per pound in March 2018 (fig. 2, table 11). The average price of New York dealers’ number 2 scrap in March 2019 was \$2.03 per pound, 7% greater than \$1.90 per pound in February and 5% less than \$2.14 per pound in March 2018 (fig. 2, table 12).

Stocks

Refined copper stocks in the United States fell for the eighth consecutive month and totaled 135,000 t at the end of March 2019, a decrease of 30% from those in February, 55% lower than those in March 2018, and 62% less than the recent peak in July 2018. Stocks at wire-rod mills fell by 23%, COMEX stocks declined by 24%, and London Metal Exchange Ltd. stocks in U.S. warehouses were 40% lower compared with those at the end of February (fig. 3, table 10).

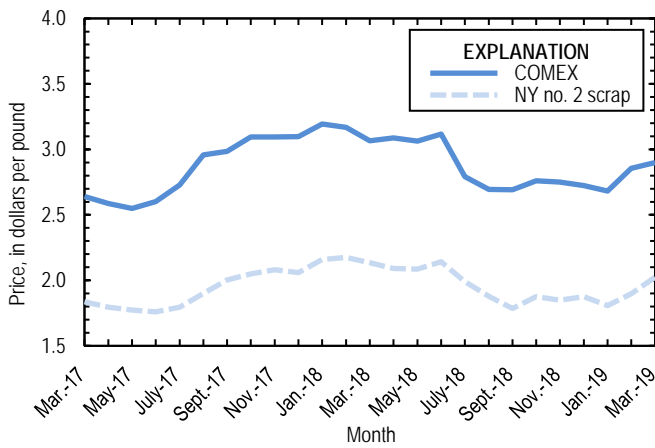


Figure 2. Monthly average COMEX copper price and New York no. 2 copper scrap price from March 2017 through March 2019. Sources: American Metal Market, Platts Metals Week.

Industry News

Panama.—The Cobre Panama Mine began producing copper concentrates during the first quarter of 2019. First Quantum Minerals Ltd. (Canada) anticipated that the mine would produce between 140,000 and 175,000 t of copper in 2019 and expand to an annual output of 375,000 t in 2023 (First Quantum Minerals Ltd., 2019a, b). At full production, Cobre Panama would be one of the twelve leading global copper mines based on 2019 production capacities (International Copper Study Group, 2019, p. 36).

Peru.—On March 26, MMG Ltd. (Australia) declared force majeure on copper produced at the Las Bambas Mine owing to protests that were blocking shipments of copper concentrates. The protesters claimed that the company built a road on farmland without consulting the local community (de la Paz, 2019). In 2018, Las Bambas produced 385,000 t of copper in concentrates, accounting for nearly 2% of global mined copper output (MMG Ltd., 2019, p. 22).

United States.—Hudbay Minerals Inc. (Canada) announced on March 21 that it had completed the permitting process for the Rosemont project in southern Arizona. However, several organizations had also filed lawsuits to block the mine. Once completed, the project was expected to produce about 127,000 t of copper in concentrates annually over the first 10 years of operations (Hudbay Minerals Inc., 2019; Mining Journal, 2019).

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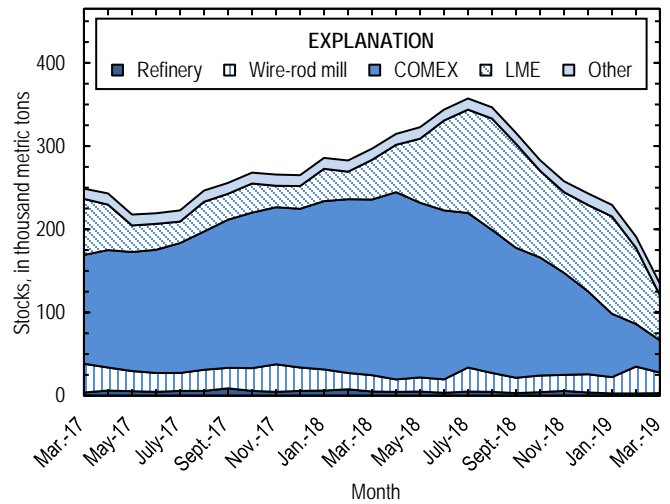


Figure 3. Monthly domestic refined copper stocks, by type, from March 2017 through March 2019. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

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TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES¹

(Metric tons of copper content, unless otherwise specified)

	Source table ²	2018 ^p	2019			
			January	February	March	January– March
Production:						
Primary:						
Mine, recoverable	(2)	1,220,000	97,700	96,100 ^r	106,000	300,000
Smelter	(3)	536,000	34,700	17,700	37,000	89,400
Refinery:						
Electrolytic, domestic and foreign	(4)	538,000	37,100	25,000	27,800	90,000
Electrowon	(4)	532,000	42,400	39,800	44,600	127,000
Total	(4)	1,070,000	79,500	64,800	72,500	217,000
Secondary recoverable copper:³						
Refineries	(5)	41,200	3,770	3,330	3,950	11,100
Ingot makers ⁴	(5)	56,800	4,730	4,730	4,730	14,200
Brass and wire-rod mills	(5)	652,000	55,700	55,100	55,500	166,000
Foundries, etc. ⁴	(5)	36,300	3,030	3,030	3,030	9,080
Consumption:						
Apparent	(8)	1,800,000	151,000	139,000 ^r	172,000	462,000
Refined (reported)	(7)	1,810,000	156,000 ^r	146,000 ^r	163,000	466,000
Purchased copper-base scrap (gross weight)	(9)	918,000	78,300	77,200	78,300	234,000
Stocks at end of period:						
Total refined	(10)	243,000	229,000	191,000 ^r	135,000	135,000
Blister, etc.	(10)	9,230 ^r	9,550 ^r	10,200 ^r	15,000	15,000
Price, U.S. producers cathode (cents per pound) ⁵	(11)	298.737	275.588	293.129	297.974	288.897
Imports:⁶						
Ore and concentrates	(13)	32,200	670	1,010	824	2,510
Refined	(13)	778,000	57,300	37,800	40,500	136,000
Exports:⁶						
Ore and concentrates	(14)	253,000	24,400	25,100	33,800	83,300
Refined	(14)	190,000	12,600	13,100	10,200	35,900

^pPreliminary. ^rRevised.

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

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

³Copper recovered from copper-base scrap only.

⁴Estimated based on the monthly average of 2017 annual data.

⁵Source: Platts Metals Week.

⁶Source: U.S. Census Bureau.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES¹

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others ²	Total	Electrowon	Concentrates ³	Total
2018: ^p						
January–March	199,000	88,500	287,000	132,000	161,000	293,000
March	68,200	27,900	96,000	44,400	53,700	98,000
April	65,400	34,700	100,000	43,200	58,800	102,000
May	69,300	29,800	99,200	46,000	55,200	101,000
June	70,600	41,900	113,000	44,900	70,100	115,000
July	66,800	38,500	105,000	46,000	61,400	107,000
August	69,100	38,600	108,000	45,500	64,600	110,000
September	63,000	36,800	99,800	43,000	59,100	102,000
October	64,000	36,900	101,000	43,100	59,800	103,000
November	65,200	38,000	103,000	43,000	62,400	105,000
December	69,300	37,300	107,000	45,800	63,000	109,000
January–December	801,000	421,000	1,220,000	532,000	716,000	1,250,000
2019:						
January	67,800	29,900	97,700	42,400	57,400	99,800
February	62,600 ^r	33,500	96,100 ^r	39,800	58,400 ^r	98,200 ^r
March	70,300	35,500	106,000	44,600	63,300	108,000
January–March	201,000	98,900	300,000	127,000	179,000	306,000

^pPreliminary. ^rRevised.

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

²Includes production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

³Includes copper content of precipitates and other metal concentrates.

TABLE 3
COPPER PRODUCED AT SMELTERS IN
THE UNITED STATES^{1,2}

(Metric tons, copper content)

Period	Anode production
2018: ^p	
January–March	138,000
March	41,500
April	44,800
May	39,000
June	45,700
July	47,500
August	46,100
September	40,800
October	48,200
November	45,300
December	40,600
January–December	536,000
2019:	
January	34,700
February	17,700
March	37,000
January–March	89,400

^pPreliminary.

¹Includes blister and copper anode from primary or secondary sources.

²Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY¹

(Metric tons)

Period	Primary materials			Scrap	Total refined
	Electrolytically refined ²	Electrowon	Total		
2018: ^p					
January–March	142,000	132,000	273,000	9,690	283,000
March	50,400	44,400	94,800	3,220	98,000
April	38,700	43,200	82,000	3,260	85,200
May	41,600	46,000	87,600	3,330	90,900
June	39,800	44,900	84,700	3,400	88,000
July	45,900	46,000	91,900	3,390	95,300
August	48,400	45,500	93,900	3,220	97,100
September	40,200	43,000	83,200	3,810	87,000
October	46,100	43,100	89,200	4,180	93,400
November	50,000	43,000	93,000	3,370	96,400
December	45,300	45,800	91,200	3,520	94,700
January–December	538,000	532,000	1,070,000	41,200	1,110,000
2019:					
January	37,100	42,400	79,500	3,770	83,200
February	25,000	39,800	64,800 ^r	3,330	68,100
March	27,800	44,600	72,500	3,950	76,400
January–March	90,000	127,000	217,000	11,100	228,000

^pPreliminary. ^rRevised.

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

²From domestic and foreign source materials.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP¹

(Metric tons, copper content)

Period	Refineries ²		Ingot makers ³		Brass and wire-rod mills		Foundries, etc. ³		Total ⁴
	New scrap ^c	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2018: ^p									
January–March	5,030	4,660	2,130	12,100	148,000	9,600	6,590	2,490	190,000
March	1,680	1,540	710	4,020	46,800	3,350	2,200	830	61,100
April	1,680	1,580	710	4,020	50,800	3,270	2,200	830	65,100
May	1,680	1,650	710	4,020	53,000	3,180	2,200	830	67,300
June	1,680	1,720	710	4,020	52,400	2,960	2,200	830	66,500
July	1,680	1,710	710	4,020	51,600	3,060	2,200	830	65,800
August	1,680	1,540	710	4,020	51,600	3,220	2,200	830	65,700
September	1,680	2,130	710	4,020	51,900	2,850	2,200	830	66,300
October	1,680	2,500	710	4,020	52,700	3,490	2,200	830	68,100
November	1,680	1,690	710	4,020	53,900	1,470	2,200	830	66,500
December	1,680	1,840	710	4,020	50,800	2,700	2,200	830	64,800
January–December	20,100	21,000	8,520	48,300	617,000	35,800	26,400	9,960	787,000
2019:									
January	1,680	2,100	710	4,020	52,100	3,520	2,200	830	67,200
February	1,680	1,660	710	4,020	51,900	3,170	2,200	830	66,200
March	1,680	2,270	710	4,020	52,200	3,310	2,200	830	67,200
January–March	5,030	6,020	2,130	12,100	156,000	10,000	6,590	2,490	201,000

^cEstimated. ^pPreliminary.

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

²Electrolytically refined and fire refined from scrap based on source of material at smelter or refinery level.

³Monthly data estimated based on the monthly average of 2017 annual data.

⁴Does not include an estimate, based on reported 2017 annual data, of 3,190 tons per month from new scrap and 2,560 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6
 PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES¹

(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
2018: ^p						
January–March	221,000	337,000	221,000	339,000	29,200	24,200
March	74,300	115,000	74,000	117,000	29,200	24,200
April	73,600	103,000	73,600	111,000	29,200	16,400
May	73,600	115,000	74,000	113,000	28,800	18,400
June	73,900	118,000	73,800	114,000	28,900	22,200
July	73,400	99,300	73,700	102,000	28,700	19,600
August	73,800	124,000	74,200	120,000	28,300	23,900
September	73,500	110,000	73,300	111,000	28,400	23,000
October	74,300	114,000	73,900	120,000	28,800	16,900
November	73,500	113,000	73,400	108,000	28,900	21,300
December	73,800	97,700	73,000	92,100	29,700	27,000
January–December	884,000	1,330,000	884,000	1,330,000	29,700	27,000
2019:						
January	74,200	113,000	73,800	116,000	30,000	23,700
February	73,500	103,000	73,600	110,000	29,900	17,100
March	74,200	117,000	73,800	112,000	30,400	22,400
January–March	222,000	333,000	221,000	337,000	30,400	22,400

^pPreliminary.

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

TABLE 7
CONSUMPTION OF REFINED COPPER¹

(Metric tons)

Period	Brass mills	Wire-rod mills	Other plants ²	Total
2018: ^p				
January–March	105,000	335,000	15,500	455,000
March	34,900	115,000	5,170	155,000
April	35,100	105,000	5,170	145,000
May	34,900	115,000	5,170	155,000
June	34,900	106,000	5,170	146,000
July	34,800	104,000	5,170	144,000
August	35,100	121,000	5,170	161,000
September	35,100	122,000	5,170	163,000
October	34,900	112,000	5,170	152,000
November	34,700	113,000	5,170	153,000
December	34,600	98,000	5,170	138,000
January–December	419,000	1,330,000	62,100	1,810,000
2019:				
January	34,900	116,000 ^r	5,170	156,000 ^r
February	34,800 ^r	106,000 ^r	5,170	146,000 ^r
March	34,900	123,000	5,170	163,000
January–March	105,000	346,000	15,500	466,000

^pPreliminary. ^rRevised.

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

²Monthly consumption data by ingot makers, chemical plants, foundries, and miscellaneous manufacturers are estimated based on the monthly average of 2017 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER¹

(Metric tons)

Period	Refined copper production ²	Copper in old scrap ³	Refined general imports ⁴	Refined exports ⁴	Stock change during period	Apparent consumption
2018: ^p						
January–March	273,000	36,500	232,000	29,000	31,500	482,000
March	94,800	12,300	74,100 ^r	12,100	14,000	155,000 ^r
April	82,000	12,300	63,900 ^r	13,700	17,700	127,000 ^r
May	87,600	12,200	64,600	13,800	8,150	142,000
June	84,700	12,100	66,200	11,300 ^r	21,000	131,000
July	91,900	12,200	59,500	11,200	13,500	139,000
August	93,900	12,200	48,300	15,700	-10,200	149,000
September	83,200	12,400	62,300	15,600	-30,900	173,000
October	89,200	13,400	54,400	31,000	-32,900	159,000
November	93,000	10,600	51,000	36,200	-25,400	144,000
December	91,200	12,000	44,800	12,400	-14,900	150,000
January–December	1,070,000	146,000	747,000	190,000	-22,500	1,800,000
2019:						
January	79,500	13,000	57,600	12,600	-13,800	151,000
February	64,800 ^r	12,200	37,000	13,100	-37,900 ^r	139,000 ^r
March	72,500	13,000	39,900	10,200	-56,500	172,000
January–March	217,000	38,300	134,000	35,900	-108,141	462,000

^pPreliminary. ^rRevised.

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

²Includes electrolytic production and electrolytically-refined copper from primary materials. All refined copper consumed in scrap form is included in "Copper in old scrap."

³Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2017 annual data.

⁴Source: U.S. Census Bureau.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP¹

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers ²		Brass and wire-rod mills ³		Foundries, etc. ²		Total scrap used
	New scrap ^c	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2018: ^p									
January–March	5,190	4,800	6,090	15,100	172,000	9,830	7,870	2,810	223,000
March	1,730	1,590	2,030	5,040	54,700	3,450	2,620	935	72,100
April	1,730	1,630	2,030	5,040	58,800	3,380	2,620	935	76,200
May	1,730	1,700	2,030	5,040	61,000	3,270	2,620	935	78,300
June	1,730	1,770	2,030	5,040	60,400	3,030	2,620	935	77,500
July	1,730	1,770	2,030	5,040	59,600	3,110	2,620	935	76,900
August	1,730	1,590	2,030	5,040	59,600	3,320	2,620	935	76,800
September	1,730	2,200	2,030	5,040	59,900	2,970	2,620	935	77,500
October	1,730	1,590	2,030	5,040	60,700	3,580	2,620	935	78,200
November	1,730	1,750	2,030	5,040	61,900	1,510	2,620	935	77,500
December	1,730	1,900	2,030	5,040	58,700	2,770	2,620	935	75,800
January–December	20,800	20,700	24,400	60,500	712,000	36,800	31,500	11,200	918,000
2019:									
January	1,730	2,160	2,030	5,040	60,100	3,610	2,620	935	78,300
February	1,730	1,710	2,030	5,040	59,900	3,260	2,620	935	77,200
March	1,730	2,340	2,030	5,040	60,200	3,410	2,620	935	78,300
January–March	5,190	6,210	6,090	15,100	180,000	10,300	7,870	2,810	234,000

^cEstimated. ^pPreliminary.

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

²Monthly data estimated based on the monthly average of 2017 annual data.

³Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
COPPER STOCKS AT END OF PERIOD¹

(Metric tons)

Period	Crude copper ²	Refined copper						Total refined
		Refineries ³	Wire-rod mills ³	Brass mills ³	Other ⁴	Comex	LME ⁵	
2018: ^P								
March	9,010	4,790	19,900	8,000	5,350	211,000	47,600	297,000
April	9,880	4,500	15,000	7,870	5,350	225,000	57,000	314,000
May	8,130	4,960	16,800	8,190	5,350	210,000	77,200	323,000
June	14,300	3,590	16,100	7,980	5,350	203,000	108,000	344,000
July	9,670	4,980	28,700	8,180	5,350	186,000	124,000	357,000
August	9,010	4,600	22,600	7,890	5,350	172,000	134,000	347,000
September	9,110	3,120	18,500	7,710	5,350	156,000	125,000	316,000
October	8,940	4,290	19,900	7,460	5,350	142,000	104,000	283,000
November	7,380	5,580	19,200	7,660	5,350	123,000	96,900	258,000
December	9,230 ^r	3,850	21,800	8,210	5,350	99,600	104,000	243,000
2019:								
January	9,550 ^r	2,700	19,700	8,370	5,350	76,100	117,000	229,000
February	10,200 ^r	2,750 ^r	32,300 ^r	8,270 ^r	5,350	51,200	91,300	191,000 ^r
March	15,000	2,970	24,800	8,400	5,350	38,700	54,400	135,000

^PPreliminary. ^rRevised.

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

²Copper content of blister and anode.

³Stocks of refined copper as reported; no estimates are made for nonrespondents.

⁴Monthly estimates based on 2017 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

⁵London Metal Exchange Ltd., U.S. warehouses.

TABLE 11
 AVERAGE PRICE OF COPPER IN THE UNITED STATES
 AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers cathode ¹	Comex first position ²	LME cash price Grade A
2018:			
March	312.083	306.683	308.227
April	314.129	308.754	310.169
May	312.402	306.402	309.409
June	318.152	311.714	315.436
July	285.626	279.126	283.387
August	276.087	269.387	273.936
September	276.107	269.232	273.044
October	282.498	275.935	281.918
November	281.598	275.098	280.882
December	279.026	272.338	276.397
Year	298.737	292.567	295.960
2019:			
January	275.588	268.238	269.052
February	293.129	285.566	284.754
March	297.974	289.974	292.581
January–March	288.897	281.259	282.129

¹Sum of "Comex high grade first position" and "NY dealer premium cathode."

²Listed as "Comex high grade first position."

Source: Platts Metals Week.

TABLE 12
AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Period	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 scrap	Red brass turnings and borings
2018:				
March	295.18	268.32	213.50	160.00
April	299.33	274.36	209.02	158.00
May	297.50	271.68	208.59	158.55
June	301.67	274.14	214.17	160.57
July	269.95	239.48	198.93	151.29
August	261.00	229.07	187.80	145.43
September	261.16	228.50	178.45	141.47
October	267.65	239.80	187.50	141.00
November	267.50	240.10	185.00	130.00
December	264.52	238.72	187.50	141.00
Year	283.19	254.90	200.31	150.76
2019:				
January	260.33	235.19	180.79	139.00
February	278.66	252.39	189.82	140.42
March	282.69	253.31	202.50	145.00
January–March	273.89	246.96	191.04	141.47

Source: American Metal Market.

TABLE 13
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS¹

(Metric tons, copper content)

Country or locality	Ore and concentrates ²			Matte, ash, and precipitates ³			Blister and anodes			Refined		
	2019			2019			2019			2019		
	2018	March	January–March	2018	March	January–March	2018	March	January–March	2018	March	January–March
Belgium	--	--	--	283	--	117	--	--	--	10,100	--	--
Bolivia	--	--	--	--	--	--	--	--	--	1,460	168	1,200
Canada	40	--	--	613 ^r	14	68	(4)	--	--	172,000	9,660	28,300
Chile	--	--	--	--	--	--	--	--	--	483,000	25,600	87,000
China	8	--	--	2	--	--	--	--	--	111	49	111
Congo (Brazzaville)	--	--	--	--	--	--	--	--	--	1,040	--	--
Congo (Kinshasa)	--	--	--	--	--	--	--	--	--	3,380	--	--
Finland	--	--	--	--	--	--	292	33	48	--	--	38
Germany	--	--	--	--	--	--	(4)	--	--	1,260	82	411
Japan	--	--	--	10	--	--	2	(4)	(4)	3,990	300	699
Malaysia	--	--	--	--	--	--	54	--	--	--	--	--
Mexico	32,100 ^r	824	2,510	539	(4)	59	--	--	--	63,100 ^r	4,120	15,200
Netherlands	--	--	--	115	--	--	2	3	3	(4)	--	--
Peru	--	--	--	--	--	--	--	--	--	19,100	500	2,500
Saudi Arabia	--	--	--	85	40	98	--	--	--	--	--	--
Zambia	--	--	--	--	--	--	--	--	--	18,900 ^r	--	--
Other	--	--	2	175 ^r	478	478	5	1	3 ^r	562 ^r	(4)	41
Total	32,200	824	2,510	1,820 ^r	533	820	355	37	54	778,000	40,500	136,000

^rRevised. -- Zero.

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

²Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

³Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 14
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS¹

(Metric tons, copper content)

Country or locality	Ore and concentrates ²			Matte, ash, and precipitates ³			Blister and anodes			Refined		
	2019			2019			2019			2019		
	2018	March	January-- March	2018	March	January-- March	2018	March	January-- March	2018	March	January-- March
Belgium	20	2	2	2,150 ^r	277	687	226	18	124	--	--	29
Brazil	3,040	--	--	--	--	--	62	--	12	23	--	--
Bulgaria	2,990	3,050	8,300	--	--	--	--	--	--	--	--	--
Canada	17,200	1,100	3,030	19,500	1,330	4,860	4,320	296	1,420	37,300 ^r	568	5,740
China	47,500	--	--	1,650	17	89	210	32	64	47,600	1	1
Germany	4,810	--	--	1,130	46	189	282	--	104	2	(4)	1
Hong Kong	--	--	--	--	--	--	462	20	119	(4)	(4)	(4)
India	--	--	--	44	--	--	585	26	73	9	--	--
Italy	1	--	--	10	--	--	281	22	44	24	2	23
Japan	13,500	2,270	7,160	230	8	8	36	--	3	14	--	(4)
Korea, Republic of	4,690	4,570	4,570	817	--	74	1,680	132	460	2,200	--	61
Malaysia	545	--	5	413	--	--	178	19	59	62	3	4
Mexico	147,000	22,800	58,400	1,430	986	987	80	1	6	102,000	9,650	30,000
Philippines	1,180	--	--	--	--	--	42	--	17	(4)	--	--
Slovakia	--	--	--	526	59	196	--	--	--	--	--	--
Spain	10,500	--	1,480	210	--	--	101	--	20	1	--	--
Other	120	(4)	447	1,850 ^r	2	92	503	34	155	278	11	21
Total	253,000	33,800	83,300	30,000 ^r	2,720	7,180	9,060	600	2,680	190,000	10,200	35,900

^rRevised. -- Zero.

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

²Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

³Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP¹

(Metric tons, gross weight)

Country or locality	Unalloyed			Alloyed		
	2019			2019		
	2018	March	January-- March	2018	March	January-- March
Bahamas	23	--	--	569	64	230
Canada	16,800	1,440	4,080	72,000	6,170	15,800
Chile	177	--	--	321	504	526
Colombia	367	19	59	926	93	363
Costa Rica	459	55	122	750	85	245
Dominican Republic	80	--	110	901	175	621
Guatemala	92	--	8	501	6	212
Honduras	5	1	4	589	82	122
Hong Kong	7	--	--	1,450	--	229
Japan	278	299	530	52	--	--
Mexico	10,800	1,080	3,250	38,600	3,780	10,600
Pakistan	567	--	--	--	--	--
Panama	1,020	25	73	640	42	115
Spain	--	--	--	637	--	--
Venezuela	2,540	--	--	646	25	81
Other	1,270 ^r	50	283	4,150	485	1,110
Total	34,500 ^r	2,970	8,520	123,000	11,500	30,300

^rRevised. -- Zero.

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

Source: U.S. Census Bureau.

TABLE 16
U.S. EXPORTS OF COPPER SCRAP¹

(Metric tons, gross weight)

Country or locality	Unalloyed							Alloyed				
	2019							2019				
	2018	No. 1		No. 2		Other		2018	Segregated		Unsegregated	
		March	January– March	March	January– March	March	January– March		March	January– March	March	January– March
Belgium	19,500	331	1,420	574	2,790	202	520	11,800	98	236	1,070	2,770
Canada	51,900	--	--	--	--	4,380	12,500	40,200 ^r	--	--	4,750	11,100
China	193,000 ^r	3,300	6,360	4,470	8,090	1,800	5,700	78,600 ^r	934	3,120	129	1,060
Germany	24,000 ^r	2,140	4,470	548	2,260	99	399	13,300	232	474	1,270	2,900
Greece	7,630 ^r	661	2,440	121	262	59	356	1,150 ^r	17	55	60	100
Hong Kong	20,700 ^r	501	1,690	545	2,360	810	2,490	23,600 ^r	1,480	2,750	1,940	4,680
India	14,000	317	852	361	781	688	1,840	34,300 ^r	3,320	7,330	942	2,870
Japan	29,300 ^r	471	1,880	1,360	4,950	667	1,350	26,700	481	2,510	1,290	4,690
Korea, Republic of	45,800 ^r	1,710	5,000	273	1,470	1,220	3,350	25,900	1,490	3,830	902	3,330
Malaysia	47,800 ^r	1,530	4,520	1,360	3,380	3,580	10,200	71,800	3,690	9,300	11,700	29,600
Netherlands	8,030	97	193	--	57	318	917	2,280	67	180	237	472
Pakistan	1,450 ^r	41	145	58	234	--	39	16,500	20	195	1,070	2,470
Spain	760 ^r	--	--	--	47	--	--	10,100	305	917	542	1,520
Taiwan	17,100 ^r	1,250	2,900	132	571	666	1,560	18,300 ^r	694	1,190	1,170	3,360
Thailand	3,000 ^r	66	243	148	321	72	156	11,100 ^r	21	21	1,630	4,890
Other	25,700	867	4,280	666	1,530	443	978	17,900	236	1,310	1,980	5,530
Total	509,000 ^r	13,300	36,400	10,600	29,100	15,000	42,400	403,000 ^r	13,100	33,400	30,600	81,400

^rRevised. -- Zero.

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

Source: U.S. Census Bureau.