



Mineral Industry Surveys

For information, contact:

Daniel Edelstein, Copper Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4978, Fax: (703) 648-7757
E-mail: dedelste@usgs.gov

Hema Edupuganti (Data)
Telephone: (703) 648-7951, Fax: (703) 648-8975
E-mail: hedupuganti@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

COPPER IN JUNE 2003

Average daily mine production was at its highest level of the year in June. Mine production for the first 6 months of the year, however, was 4 % below that for the same period in 2002. Though average daily production of refined copper rose by about 11% in June, it continued to lag behind production rates during the first quarter of the year. Production of refined copper for the first 6 months of the year declined by 14% compared with the same period in 2002, and reported consumption fell by about 5%.

Industry reports continue to verify the depression in the U.S. copper market. According to one market analysis, copper tube and brass mill products were not benefiting from the strong housing market and there was a “disconnect” between the copper market and the economy. While copper fabricators have been shifting production overseas for years, recent trends indicate increasing imports of basic mill forms (Platts Metals Week, 2003b). The latter contention, however is not borne out by trade statistics that, according to data compiled by the Copper and Brass Fabricators Council, Inc. (2003), indicate that net imports of brass mill products (copper and alloy) for the first 6 months of 2003 declined by about 9% from those for the comparative period in 2002. Data published by CRU International Ltd. (2003) support the contention of weak U.S. demand despite a growth in residential construction (the value of private residential construction increased 3% year-on-year in May), but they also indicate that private non-residential construction (where, for example, copper tube is used most intensely) has declined sharply. According to the American Bureau of Metal Statistics, Inc. (ABMS) (2003a), manufacturers cite multiple reasons for the poor market including: economic weakness, especially in the manufacturing sector; the transfer of U.S. manufacturing of end-use products and component parts offshore; cooler than normal spring and summer weather; inventory reductions by consumers; weakness in commercial construction, computer, telecommunications, and coinage demand; and planned reductions in domestic automotive production. According to ABMS data, year-on-year shipments of brass mill products by domestic producers in the second quarter of 2003 were down by 11%, and almost 8% for the first half of the year.

Similarly, ABMS data (2003b) indicate that overall rod demand for the first half of 2003 fell by 13.5% compared with the same period in 2002. Net imports of wire rod during the first 6 months of 2003, however, were down by 32% from the same period in 2002. Reports coming from the telecommunications market indicate continued weakness in that sector following the collapse of its market in 2000. Preliminary data compiled by the Copper Development Association, Inc. (2003, p. 18) indicate that wire mill shipments to the telecommunications industry in 2002 fell by 43% from record levels in 2000. According to U.S. telecommunication giant Lucent Technologies Inc., its revenues plunged 42% in 2002 mainly due to “the significant reduction in capital spending by service providers.” According to industry analysts, the communication wire segment continues to be depressed owing to an overbuilding of networks prior to the industry collapse in 2000 that is allowing companies to defer capital spending on building out and upgrading their networks (Platts Metals Week, 2003a).

Concern over rising U.S. exports of scrap to China and domestic imports of manufactured goods from that country has led to the formation of the Washington-based Coalition for a Sound Dollar. The 80-plus member coalition, including the American Foundry Society, the Copper and Brass Fabricators Council, and the Forging Industry Association, reportedly was contemplating filing a Section 301 trade case against China for currency manipulation. The coalition contends that China’s policy of pegging the value of the Chinese yuan to the U.S. dollar, rather than letting it float in world currency markets, constitutes currency manipulation that seriously undervalues the yuan and allows China to produce and sell goods at artificially low prices. The group’s aim is to convince the United States to initiate talks with China in an effort to force China’s central bank to establish a rate for the yuan that consistently reflects its economy, which has been growing at about 8% per year. If the trade action is filed and injuries are affirmed by the U.S. International Trade Administration, the United States could impose remedies similar to the Section 201 steel import tariffs imposed in March 2002 (Kelly, 2002). Under growing pressure, including a letter from 16 Members of Congress contending that

China was undercutting American factories by intentionally undervaluing its yuan, the subject reportedly became a top agenda item when the President met with economic advisors in early August. According to administration officials, the Secretary of the Treasury was expected to urge China's leaders to rethink their long-held policy of locking the yuan at a fixed exchange rate of 8.28 to the U.S. dollar (Becker, 2003¹).

In late June, Kennecott Utah Copper Corp. ended a long contract impasse that began October 1, 2002, when its unionized employees ratified a 6-year agreement. Kennecott operations continued to operate without labor disruption under terms of the Company's final offer. The new agreement provides for annual wage increases, continued health care coverage for employees and retirees that includes participant contributions, and increases company flexibility for making personnel and work assignments (Rio Tinto, 2003b). Subsequent to contract ratification, Kennecott announced that approximately 120 hourly, union-represented, operations and maintenance employees would be laid off. The impending reduction in force, "driven by business necessity" in the face of continued low copper prices and reduced levels of byproduct gold and molybdenum production, had been announced to employees prior to final contract ratification (Rio Tinto, 2003a).

¹A reference that includes a section mark (§) is found in the Internet Reference Cited section.

References Cited

- American Bureau of Metal Statistics, Inc., 2003a, Copper and copper alloy product markets—ABMS Report 3: Chatham, NJ, American Bureau of Metal Statistics, June, 7 p.
- American Bureau of Metal Statistics, Inc., 2003b, US copper wirerod market—ABMS Report 4: Chatham, NJ, American Bureau of Metal Statistics, June, 3 p.
- Copper and Brass Fabricators Council, Inc., 2003, Import and export report: Washington, DC, Copper and Brass Fabricators Council, Inc., June, 10 p.
- Copper Development Association Inc., 2003, Annual data 2003: New York, NY, Copper Development Association Inc., 20 p.
- CRU International Ltd., 2003, CRU Monitor—Cu & Cu alloy mill products: London, United Kingdom, CRU International Ltd., July, 11 p.
- Kelly, N. E., 2003, China trade suit eyed in bid for revalued yuan: American Metal Market, v. 111, no. 24-4, June 19, p. 1, 2.
- Platts Metals Week, 2003a, Telecom wire business still tormented: Platts Metals Week, v. 74, no. 24, June 16, p. 6.
- Platts Metals Week, 2003b, US copper mills struggle despite strong home sales: Platts Metals Week, v. 74, no. 27, July 7, p. 3.
- Rio Tinto, 2003a, Kennecott announces layoffs: London, United Kingdom, and Melbourne, Australia, Rio Tinto press release, June 26, 1 p.
- Rio Tinto, 2003b, Kennecott Utah Copper and unions reach labor agreement: London, United Kingdom, and Melbourne, Australia, Rio Tinto press release, June 24, 1 p.

Internet Reference Cited

- Becker, Elizabeth, and Andrews, E. L., 2003 (August 25), Currency of China is emerging as tough business issue, accessed August 26, at URL <http://www.NYTimes.com>.

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

(Metric tons, unless otherwise specified)

	Source table ²	2003			January - June
		2002 ^p	May	June	
Production:					
Primary:					
Mine, recoverable	(2)	1,140,000	93,700	94,600	546,000
Refinery:					
Electrolytic:					
Domestic	(4)	801,000	46,100	53,400	337,000
Foreign	(4)	40,000 ³	W	W	W
Electrowon	(4)	601,000	50,400 ^r	49,600	295,000
Total	(4)	1,440,000	96,500 ^r	103,000	632,000
Secondary recoverable copper:					
Refineries	(5)	69,900	4,050	4,890	29,200
Ingot makers ⁴	(5)	122,000	10,200	10,200	61,000
Brass and wire-rod mills	(5)	735,000	55,300	58,300	344,000
Foundries, et. ⁴	(5)	64,800	5,400	5,400	32,400
Smelter, total	(3)	683,000	46,000	49,700	258,000
Consumption:					
Apparent	(8)	2,610,000	229,000	NA	NA
Refined (reported)	(7)	2,360,000 ^r	188,000	192,000	1,150,000
Purchased copper-base scrap	(9)	1,260,000	94,500	98,700	590,000
Stocks at end of period:					
Total refined	(11)	1,030,000	865,000	802,000	XX
Blister, etc.	(11)	44,400	46,900	45,800	XX
Prices:					
U.S. producer cathode (cents per pound) ⁵	(12)	75.805	78.020	79.716	79.104
Imports:⁶					
Ores and concentrates ⁷	(14)	71,900	--	NA	NA
Refined	(14)	927,000	72,700	NA	NA
Exports:⁶					
Ores and concentrates ⁷	(15)	23,000	887	NA	NA
Refined	(15)	26,600	15,900	NA	NA

^pPreliminary. ^rRevised. -- Zero. NA Not available. W Withheld to avoid disclosing company proprietary data; included in "Domestic." XX Not applicable.

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

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

³January-April only; excludes withheld data.

⁴Monthly data and 2002 cumulative data estimated based on 2001 monthly average.

⁵Source: Platts Metals Week.

⁶Source: U.S. Census Bureau.

⁷Copper content.

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
2002: ^P						
January - June	385,000 ^r	187,000	572,000 ^r	304,000	276,000	579,000
June	63,400	29,800	93,200	51,000	43,400	94,400
July	63,600	29,700	93,300	50,900	43,400	94,300
August	65,300	28,400	93,700	51,000	43,900	94,900
September	62,700	34,500	97,200	48,900	49,700	98,600
October	62,200	32,000	94,200	48,600	46,800	95,500
November	62,500	32,800	95,300	47,100	49,400	96,500
December	66,500	30,500	96,900	50,500	47,700	98,200
Year	767,000	375,000	1,140,000	601,000	557,000	1,160,000
2003:						
January	62,400	28,600	91,100	49,900	42,300	92,200
February	55,800	26,700	82,500	45,900	37,600	83,500
March	64,100 ^r	33,100	97,200	52,000	46,600 ^r	98,500
April	59,800	27,600	87,300	47,400	41,100	88,500
May	62,400	31,300	93,700	50,400	44,400 ^r	94,800 ^r
June	65,100	29,400	94,600	49,600	46,400	96,000
January - June	370,000	177,000	546,000	295,000	258,000	553,000

^PPreliminary. ^rRevised.

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

²Includes production from Idaho, Missouri, New Mexico, and Utah.

³Includes copper content of precipitates and other metal concentrates.

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

(Metric tons, copper content)

Period	Anode production
2002: ^P	
January - June	354,000 ^r
June	55,400
July	50,400
August	50,300
September	54,400
October	59,800
November	57,500
December	56,500
Total	683,000
2003:	
January	54,200
February	42,300
March	35,700
April	29,700
May	46,000
June	49,700
January - June	258,000

^PPreliminary. ^rRevised.

¹Includes blister, anode and copper 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			Total	Scrap	Total refined
	Electrolytically refined ²		Electrowon			
	Domestic	Foreign				
2002: ^P						
January - June ^r	388,000	40,000	304,000	732,000	37,600	769,000
June	70,000	W	51,000	121,000	7,090	128,000
July	74,100	W	50,900	125,000	5,500	130,000
August	67,600	W	51,000	119,000	5,880	124,000
September	66,100	W	48,900	115,000	4,820	120,000
October	73,100	W	48,600	122,000	7,120	129,000
November	67,900	W	47,100	115,000	5,120	120,000
December	64,600	W	50,500	115,000	3,930	119,000
Year	801,000	40,000 ³	601,000	1,440,000	70,000	1,510,000
2003:						
January	69,800	W	49,900	120,000	4,500	124,000
February	60,500	W	45,900	106,000	3,910	110,000
March	60,700	W	52,000	113,000	5,680	118,000
April	46,600	W	47,400	94,000	6,150 ^r	100,000 ^r
May	46,100	W	50,400	96,500	4,050	101,000
June	53,400	W	49,600	103,000	4,890	108,000
January - June	337,000	W	295,000	632,000	29,200	661,000

^PPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Domestic."

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

²Based on source of material at smelter level.

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	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2002: ^P									
January - June	19,900 ^r	17,700 ^r	13,900 ^r	47,100 ^r	361,000 ^r	9,890	11,900 ^r	20,500 ^r	502,000 ^r
June	3,430	3,650	2,310	7,850	65,600	1,780	1,980	3,420	90,100
July	2,810	2,690	2,310	7,850	61,000	1,720	1,980	3,420	83,800
August	3,400	2,480	2,310	7,850	64,300	1,570	1,980	3,420	87,300
September	2,940	1,870	2,310	7,850	63,800	1,190	1,980	3,420	85,400
October	3,390	3,720	2,310	7,850	54,100	1,080	1,980	3,420	77,900
November	2,110	3,010	2,310	7,850	54,500	2,110	1,980	3,420	77,300
December	1,980	1,950	2,310	7,850	56,900	1,110	1,980	3,420	77,500
Year	36,500	33,400	27,800	94,200	716,000	18,700	23,700	41,100	991,000
2003:									
January	1,410	3,080	2,310	7,850	63,000	1,470	1,980	3,420	84,500
February	1,210	2,700	2,310	7,850	54,200	1,270	1,980	3,420	74,900
March	1,340	4,340	2,310	7,850	55,400 ^r	732	1,980	3,420	77,400 ^r
April	1,340	4,810 ^r	2,310	7,850	53,100 ^r	1,380	1,980	3,420	76,200 ^r
May	1,340	2,710	2,310	7,850	54,000	1,310	1,980	3,420	75,000
June	1,340	3,550	2,310	7,850	57,100	1,200	1,980	3,420	78,700
January - June	7,970	21,200	13,900	47,100	337,000	7,360	11,900	20,500	467,000

^PPreliminary. ^rRevised.

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

²Electrolytically refined and fire-refined scrap based on source of material at smelter level.

³Monthly data and 2002 cumulative data estimated based on 2001 annual data.

⁴Does not include an estimate, based on reported 2001 data, of 3,190 tons per month from new scrap and 2,010 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
2002: ^P						
January - June ^f	748,000	882,000	751,000	881,000	XX	XX
June	130,000	139,000	129,000	143,000	50,500	28,500
July	119,000	144,000	120,000	147,000	50,000	25,400
August	128,000	148,000	128,000	152,000	50,400	21,500
September	124,000	145,000	122,000	148,000	53,200	18,600
October	127,000	158,000	125,000	155,000	55,800	20,900
November	114,000	138,000	116,000	129,000	53,400	28,900
December	106,000	108,000	103,000	108,000	56,200	29,000
Year	1,470,000	1,720,000	1,460,000	1,720,000	XX	XX
2003:						
January	119,000 ^r	140,000	120,000 ^r	139,000	55,200	29,500
February	110,000	133,000	110,000 ^r	132,000	55,600	30,200
March	115,000 ^r	139,000	114,000 ^r	132,000	59,700 ^r	37,300
April	115,000	127,000	115,000 ^r	127,000	59,500 ^r	37,200
May	111,000 ^r	126,000	112,000 ^r	129,000	58,200	34,500
June	113,000	128,000	114,000	122,000	57,400	40,800
January - June	683,000	793,000	685,000	782,000	XX	XX

^PPreliminary. ^rRevised. XX Not applicable.

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 and item	Wire-rod mills	Brass mills	Other plants ²	Total
2002: ^P				
January - June ^f	868,000	304,000	29,700	1,200,000
June	138,000	54,700	4,950	198,000
July	142,000	49,300	4,950	197,000
August	152,000	51,400	4,950	209,000
September	143,000	50,900	4,950	199,000
October	151,000	50,200	4,950	206,000
November	142,000	46,300	4,950	193,000
December	113,000	40,600	4,950	159,000
Year	1,710,000	593,000 ^r	59,400	2,360,000 ^r
2003:				
January	137,000	47,200	4,950	189,000
February	140,000	49,600	4,950	195,000
March	142,000	50,000 ^r	4,950	197,000
April	129,000	49,500 ^r	4,950	184,000
May	133,000	49,900	4,950	188,000
June:				
Cathodes	136,000	39,100	1,140	176,000
Wire bars	--	--	(3)	(3)
Ingots and ingot bars	--	1,150	1,690	2,850
Cakes and slabs	--	(3)	(3)	(3)
Billets and other	W	10,900	2,120	13,000
Total	136,000	51,200	4,950	192,000
January - June	818,000	297,000	29,700	1,150,000

^PPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data included with "Cathodes." -- Zero.

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

²Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2001 annual data.

³Withheld to avoid disclosing company proprietary data; included with "Billets and others."

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER¹

(Metric tons)

Period	Refined copper production	Copper in old scrap ²	Refined general imports ³	Refined exports ³	Stock change during period	Apparent consumption
2002:^P						
January - May	611,000 ^r	86,700 ^r	487,000	5,710	110,000 ^r	1,070,000 ^r
May	127,000	19,000	70,200	814	(15,000)	231,000
June	121,000	18,700	79,500	6,770	(33,900)	246,000
July	125,000	17,700	83,500	7,690	13,500	205,000
August	119,000	17,400	98,200	2,550	(7,350)	239,000
September	115,000	16,400	64,000	1,320	(4,620)	199,000
October	122,000	18,100	91,500	606	(14,300)	245,000
November	115,000	18,400	74,900	506	6,190	202,000
December	115,000	16,400	83,000	1,460	4,580	208,000
Year	1,440,000	210,000	1,060,000	26,600	74,000	2,610,000
2003:						
January	120,000	17,900	61,500	2,540	(23,300)	220,000
February	106,000	17,300	64,700	766	(69,200)	257,000
March	113,000	18,400	52,500	1,510	2,950 ^r	179,000 ^r
April	94,000	19,500 ^r	52,200 ^r	606	(571) ^r	166,000 ^r
May	96,500	17,300	56,000	15,900	(75,100) ^r	229,000
June	103,000	18,100	NA	NA	(62,800)	NA
January - May	529,000	90,300	287,000	21,300	(165,000)	1,050,000

^PPreliminary. ^rRevised. NA Not available.

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

²Includes 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 2001 data.

³Source: 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	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2002:^P									
January - June	19,400 ^r	18,700 ^r	22,100 ^r	65,300 ^r	460,000 ^r	10,200	21,000 ^r	22,200 ^r	639,000 ^r
June	3,470	3,970	3,690	10,900	83,500	1,840	3,500	3,700	115,000
July	2,840	2,900	3,690	10,900	77,900	1,770	3,500	3,700	107,000
August	3,450	2,580	3,690	10,900	81,300	1,630	3,500	3,700	111,000
September	3,000	1,960	3,690	10,900	81,500	1,250	3,500	3,700	110,000
October	3,450	2,490	3,690	10,900	69,100	1,130	3,500	3,700	97,900
November	2,130	3,270	3,690	10,900	68,600	2,160	3,500	3,700	97,900
December	2,100	1,990	3,690	10,900	71,900	1,160	3,500	3,700	98,900
Year	36,400	33,900	44,300	131,000	910,000	19,300	42,000	44,400	1,260,000
2003:									
January	1,430	3,130	3,690	10,900	79,700	1,510	3,500	3,700	108,000
February	1,230	2,730	3,690	10,900	68,100	1,320	3,500	3,700	95,100
March	1,350	4,000	3,690	10,900	70,000 ^r	781	3,500	3,700	97,900 ^r
April	1,350	5,440	3,690	10,900	65,900 ^r	1,420	3,500	3,700	95,900 ^r
May	1,350	2,750	3,690	10,900	67,300	1,350	3,500	3,700	94,500
June	1,380	3,590	3,690	10,900	70,700	1,240	3,500	3,700	98,700
January - June	8,080	21,600	22,100	65,300	422,000	7,620	21,000	22,200	590,000

^PPreliminary. ^rRevised.

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

²Monthly data and 2002 cumulative data estimated from 2001 annual data.

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

TABLE 10
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP^{1,2}

(Metric tons, gross weight)

Scrap type and processor	2002 ^p		2003		
	January - June	Year	May	June	January - June
No. 1 wire and heavy:					
Smelters and refiners	38,400 ^r	73,900	5,800	5,800	34,700
Brass and wire-rod mills	192,000 ^r	379,000	31,400	33,700	191,000
No. 2 mixed heavy and light:					
Smelters and refiners	23,100 ^r	43,000	2,190	3,050	18,300
Brass and wire-rod mills	3,110 ^r	6,630	428	464	2,780
Total unalloyed scrap:					
Smelters and refiners	61,500 ^r	117,000	7,990	8,850	53,000
Brass and wire-rod mills	195,000 ^r	386,000	31,800	34,100	194,000
Red brass:³					
All plants	26,900 ^r	53,300 ^r	4,200	4,280	25,700
Leaded yellow brass:					
All plants	175,000 ^r	340,000	25,500	25,800	160,000
Yellow and low brass:					
All plants	55,500 ^r	104,000	3,450	3,530	26,400
Cartridge cases and brass:					
Smelters and refiners	W	W	W	W	W
Brass mills	29,400 ^r	70,300	6,400	6,960	40,100
Auto radiators:					
Smelters and refiners	20,700 ^r	41,400	3,450	3,450	20,700
Bronzes:					
Smelters and refiners	5,550 ^r	11,800	982 ^r	982	5,890
Brass mills	6,320 ^r	12,600	457	446	2,820
Nickel-copper alloys:					
All plants	8,720 ^r	15,300	1,650	1,390	8,050
Low grade and residues:					
Smelters and refiners	7,260 ^r	14,500	1,210	1,210	7,270
Other alloy scrap:⁴					
Smelters and refiners ⁵	1,150 ^r	2,290	191 ^r	191	1,150
Brass mills	3,450 ^r	6,980	168	273	1,810
Total alloyed scrap:					
Smelters and refiners	64,600 ^r	129,000	10,800	10,800	64,600
Brass mills	275,000 ^r	544,000	36,800	37,800	236,000
Total scrap:					
Smelters and refiners	126,000 ^r	246,000	18,800	19,600	118,000
Brass and wire-rod mills	470,000 ^r	930,000	68,700	71,900	429,000

^pPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."

¹Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 7,290 tons of scrap per month in 2001; monthly data include estimates of about 14,700 tons of scrap per month consumed by ingot makers.

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

³Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

⁴Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

⁵Includes items indicated by symbol W.

TABLE 11
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 ⁵		LME ⁶
2002: ^P								
June	88,700	16,500	20,700	23,200	3,600	322,000	646,000	1,030,000
July	101,000	15,500	25,500	27,500	3,600	338,000	636,000	1,050,000
August	81,500	12,100	24,600	28,800	3,600	341,000	628,000	1,040,000
September	76,700	11,600	27,100	26,600	3,600	344,000	621,000	1,030,000
October	76,500	10,600	29,300	22,600	3,600	346,000	607,000	1,020,000
November	76,300	14,400	21,200	32,700	3,600	347,000	607,000	1,030,000
December	44,400	11,700	23,000	28,700	3,600	362,000	601,000	1,030,000
2003:								
January	44,100	6,300	37,900	29,700	3,600	360,000	570,000	1,010,000
February	46,800	3,720	23,000	23,600	3,600	340,000	544,000	938,000
March	47,100	5,270	33,500	23,100 ^r	3,600	330,000	545,000	941,000 ^r
April	41,900	3,770	40,300	17,900 ^r	3,600	351,000	524,000	940,000
May	46,900	7,160	38,000	16,100	3,600	305,000	495,000	865,000
June	45,800	4,770	28,500	20,900	3,600	291,000	453,000	802,000

^PPreliminary. ^rRevised.

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

²Copper content of blister and other materials in transit and in process of refining.

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

⁴Monthly estimates based on 2001 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

⁵Commodity Exchange Inc., New York.

⁶London Metal Exchange Ltd., U.S. warehouses.

TABLE 12
AVERAGE PRICE OF COPPER IN THE UNITED STATES
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price cathode ¹	Comex first position ²	LME cash price Grade A
2002:			
June	80.386	76.228	74.715
July	76.487	72.329	72.082
August	71.981	67.823	67.097
September	71.863	67.705	67.057
October	72.319	68.161	67.286
November	76.729	72.571	71.758
December	76.541	72.383	72.365
Year	75.805	71.672	70.721
2003:			
January	79.529	75.371	74.722
February	81.121	76.963	76.360
March	79.875	75.717	75.234
April	76.365	72.176	71.988
May	78.020	75.045	74.746
June	79.716	76.926	76.484
January - June	79.104	75.366	74.922

¹Listed as "U.S. producer cathode."

²Listed as "Comex high grade first position."

Sources: Platts Metals Week and American Metal Market.

TABLE 13
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 Scrap	Red brass turnings and borings
2002:				
May	71.98	60.39	44.00	37.00
June	74.78	71.38	44.00	37.00
July	71.91	60.59	44.00	37.00
August	66.89	55.66	42.27	37.00
September	66.80	55.68	40.80	37.00
October	66.83	56.70	39.09	37.00
November	71.38	60.50	41.00	37.00
December	71.60	61.31	41.00	37.00
Year	70.23	59.45	42.36	37.00
2003:				
January	73.67	62.38	46.90	37.33
February	75.55	63.95	52.00	38.00
March	74.69	64.26	52.00	38.00
April	70.82	61.80	49.41	38.00
May	73.95	65.43	49.00	38.00
June	76.29	67.36	49.00	38.00
January - June	74.16	64.20	49.72	37.89

Source: American Metal Market.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS¹

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2003			2003			2003			2003		
	2002	January - May	May	2002	January - May	May	2002	January - May	May	2002	January - May	May
Belgium	--	--	--	--	--	46	--	--	--	34	--	--
Brazil	--	--	--	--	--	--	--	--	--	45,000	--	2,010
Canada	8,350	--	86	75	--	38	83,700	8,600	37,800	235,000	19,800	86,000
Chile	51,800	--	4,940	--	--	--	37,400	2,950	16,800	245,000	22,700	145,000
Germany	--	--	--	--	--	59	(2)	--	--	3,260	246	4,330
Indonesia	2,910	--	--	--	--	--	--	--	--	--	--	--
Mexico	4	--	--	324	12	271	16,200	757	4,230	57,200	3,230	9,540
Namibia	--	--	--	--	--	--	6,340	--	5,960	--	--	--
Peru	5,960	--	--	--	--	--	4,730	--	--	288,000	25,400	111,000
Russia	--	--	--	--	--	--	--	--	--	28,800	--	--
Taiwan	17	--	--	621	38	240	--	--	--	10	--	--
Turkey	2,910	--	--	--	--	--	--	--	--	--	--	--
United Kingdom	--	--	--	--	--	--	2	--	(2)	3,410	841	7,770
Other	2	--	--	19 [†]	--	3	70	--	--	21,900	463	3,180
Total	71,900	--	5,020	1,040	50	657	148,000	12,300	64,800	927,000	72,700	370,000

[†]Revised. -- Zero.

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS¹

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2003			2,003			2003			2003		
	2002	January - May	January - May	2002	January - May	January - May	2002	January - May	January - May	2002	January - May	January - May
Australia	21	--	4	5	--	--	77	10	35	1,650	32	32
Belgium	42	--	62	12	3	3	179	--	--	--	--	2
Canada	17,500	716	4,490	2,560	135	2,270	17,700	1,240	6,810	3,130	55	1,060
China	1,110	53	83	63	85	102	515	65	336	14,900	14,100	16,100
Egypt	--	--	--	--	--	--	--	--	--	2,200	--	--
Germany	28	--	--	85	--	--	241	20	120	79	11	73
Hong Kong	25	23	25	160	--	--	2,600	327	1,220	38	8	16
India	9	--	--	153	74	169	83	17	56	825	77	718
Indonesia	--	--	6	--	--	--	99	40	80	--	--	--
Israel	--	52	55	3	--	4	44	22	36	19	(2)	(2)
Japan	36	--	67	1,330	7	25	40	--	84	48	39	64
Korea, Republic of	197	--	--	40	3	5	707	85	302	524	--	133
Mexico	2,620	1	160	12,400	1,700	5,040	38	19	74	135	1,530	2,650
Netherlands	38	--	--	35	--	1	1,100	--	--	16	--	--
Peru	1,230	--	214	39	--	--	--	--	--	--	--	--
Philippines	--	--	--	3	--	--	5,880	16	32	3	--	119
Singapore	60	--	2	(2)	--	(2)	614	40	182	7	7	31
Spain	--	--	--	4	--	(2)	259	40	279	6	--	--
Taiwan	80	--	11	104	--	--	1,000	60	479	1,630	--	--
United Kingdom	16	--	35	65	2	38	469	20	169	527	--	20
Other	54	42	83	72 ^r	23	82	1,260 ^r	28	241	839 ^r	23	272
Total	23,000	887	5,290	17,100	2,030	7,740	32,900	2,050	10,500	26,600	15,900	21,300

^rRevised. -- Zero.

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16
U.S. COPPER SCRAP TRADE¹

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	2003		January - May	2003		January - May	2003		January - May	2003		January - May
	2002	May		2002	May		2002	May		2002	May	
Barbados	229	10	103	18	--	--	--	--	--	--	--	--
Belgium	--	--	--	--	--	--	2,210	88	999	7,050	222	1,670
Canada	13,900	239	2,380	38,700	2,830	15,500	20,100	1,280	8,740	19,900	1,660	8,160
Chile	611	--	18	78	--	--	144	--	--	66	--	4
China	--	--	--	547	32	200	122,000	19,100	88,900	155,000	17,500	80,300
Costa Rica	1,100	79	328	458	64	162	--	--	--	2	--	6
Dominican Republic	1,360	79	499	884	55	358	--	--	--	--	--	--
France	--	--	--	117	(2)	31	1,830	--	--	2,450	369	1,330
Germany	118	3	7	1,110	406	1,100	14,200	1,010	4,210	16,400	913	3,830
Guatemala	536	49	204	1,190	100	414	--	--	--	(2)	--	--
Honduras	399	14	138	347	54	165	--	--	--	--	--	--
Hong Kong	3	--	--	--	--	--	7,180	234	647	6,140	986	3,540
India	--	--	--	(2)	--	--	3,920	796	2,610	43,500	6,310	19,900
Jamaica	362	63	309	239	15	54	--	--	--	--	--	--
Japan	97	5	25	193	34	207	11,000	473	3,180	9,120	727	4,500
Korea, Republic of	19	--	--	40	--	14	14,900	2,200	11,400	18,700	1,120	7,590
Malaysia	--	--	--	264	34	90	--	700	3,070	243	--	53
Mexico	9,250	688	3,090	18,300	1,720	7,230	2,280	296	869	248	--	368
Nicaragua	321	16	139	170	4	68	--	--	--	--	--	--
Norway	--	--	351	--	--	39	--	--	--	253	40	171
Panama	173	--	--	792	43	374	--	--	--	79	--	--
Taiwan	15	--	--	389	31	188	10,100	625	4,250	9,060	578	3,640
United Kingdom	155	7	124	1,760	87	340	17	--	--	1,380	256	462
Venezuela	93	--	12	2,090	106	358	--	--	--	--	--	--
Other	497	30	191	3,160 [†]	172	1,130	2,850 [†]	229	1,670	8,060 [†]	472	2,650
Total	29,300	1,280	7,920	70,900	5,780	28,000	213,000	27,000	131,000	298,000	31,100	138,000

[†]Revised. -- Zero.

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.