

Mineral Industry Surveys

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COPPER IN DECEMBER 2001

Mine, smelter, and refinery production finished the year at relatively high positions despite the recent spate of announced cutbacks. Mine production in December rose as production at Kennecott Utah Copper Corp.'s Bingham Canyon Mine recovered from November's low level. Smelter production rose, despite the closure of Chemetco Inc.'s secondary smelter in November, as several primary smelters reported increased output. Refinery production, which had not been affected by mine and smelter cutbacks in November, remained unchanged at November's level. Consumption, continued its downward slide in December, the traditional slow holiday period, falling to the lowest monthly level in 5 years.

In late January 2002, BHP Billiton announced that its subsidiary, BHP Copper Inc., was permanently closing its mining operations at San Manuel, AZ. Included was the immediate closure of the remaining in situ copper leach operations, resulting in the loss of about 9,000 metric tons per year (t/yr) of electrowon copper cathode. BHP further planned to stop pumping water from the underground mine, which had been placed on care and maintenance in August 1999. When pumping stops, groundwater will recharge the underground mine, ensuring permanent loss of mining capacity. Prior to cessation of mining in 1999, San Manuel had produced about 100,000 t/yr of copper in concentrate and electrowon cathode. The underground mine was first established in the 1940s, received a \$94 million federal loan in 1952 to further develop the mine site and community, and added open pit mining and solvent extraction electrowinning in 1985. Over time, groundwater is expected to fill the underground workings and rise to the level of the open pit. BHP continues trying to sell the idled smelting, refining and wire-rod facilities long associated with the mine (BHP Billiton, 2002).

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- Mine production in 2001 continued its downward trend,

falling by about 7%. The Continental Mine in Montana, which was expected to reopen in late 2000, remained closed. Phelps Dodge Corp. completed conversion of its Morenci, AZ, mine to an all-leach operation by the end of the first quarter and curtailed concentrate production at Chino, NM. (See Copper in March 2001.) With falling copper prices, rising inventories, and a weak demand outlook, several companies announced additional reductions in the second half of the year. Kennecott Utah Copper Corp. closed its higher cost North concentrator at its Bingham Canyon Mine at midyear and ASARCO Incorporated implemented several cutbacks at its Mission Complex in Arizona. (See Copper in April 2001; Copper in October 2001.) The Tonopah, NV, leach operation, begun in 2000, ceased production in August.

- Smelter production continued its downward trend following the closure in 2000 of Southwire Company's secondary smelter and the closure in November of Chemetco Inc.'s secondary smelter. (See Copper in October 2001.) The three primary smelters that closed in 1999 remained shuttered. Refinery production, however, remained unchanged in 2001 as increased electrowon production and increased concentrate and blister imports helped to sustain production in light of falling domestic concentrate and secondary smelter production. Electrowon production accounted for a record 47% and 35%, respectively, of mine and refinery output.
- Reported consumption of refined copper fell by more than 13%, and was at its lowest level since 1996. According to data compiled by the American Bureau of Metal Statistics, Inc. (ABMS) (American Bureau of Metal Statistics, Inc., 2002b), wire-rod shipments by domestic producers to the U.S. market fell 13.2 % in 2001, and apparent consumption for wire rod (shipments plus net imports) for the first 11

months of the year were down by 12.8% compared to the same period in 2000. Similarly, ABMS data indicate a 19.8% drop in brass mill shipments in 2001 (American Bureau of Metal Statistics Inc., 2002a). Despite the slowdown in demand, imports of refined copper in 2001 reached a record-high level of about 1.2 million metric tons. A significant portion of imports were delivered to London Metal Exchange Ltd (LME) warehouses, where U.S.-held inventories rose by over 400,000 metric tons (t), and at yearend accounted for 77% of global LME stocks.

- According to preliminary data compiled by the International Copper Study Group (ICSG) (International Copper Study Group, 2002), world copper mine and refinery production in 2001 rose by 380,000 t (2.9%) and 690,000 t (4.7%), respectively, while world copper use fell by about 540,000 t

(3.5%). As a result, the ICSG calculated a refined copper production surplus of 750,000 t. This compared to a calculated deficit of 480,000 t for 2000. World reported inventories rose by 670,000 t in 2001 and at yearend were equivalent to about 7 weeks of global demand.

References Cited

- American Bureau of Metal Statistics, Inc., 2002a, Brass mill report: Chatham, NJ, American Bureau of Metal Statistics, Inc., February 22, 3 p.
- 2002b, Copper rod report: Chatham, NJ, American Bureau of Metal Statistics, Inc., February 16, 4 p.
- BHP Billiton, 2002, BHP Billiton closes San Manuel copper mine: London, BHP Billiton press release, January 25, 3 p.
- International Copper Study Group, 2002, Copper—Preliminary data for 2001: Lisbon, International Copper Study Group press release, March 5, 1 p.

TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1/

(Metric tons, unless otherwise specified)

	Source table 2/	2001			
		2000	November	December	January - December
Production:					
Primary:					
Mine, recoverable	(2)	1,440,000	102,000 t/	110,000	1,340,000
Refinery:					
Electrolytic:					
Domestic	(4)	865,000	71,200 t/	75,800	828,000
Foreign	(4)	163,000	16,100 t/	12,900	185,000
Electrowon	(4)	557,000	54,000 t/	53,200	631,000
Total	(4)	1,590,000	141,000 t/	142,000	1,640,000
Secondary recoverable copper:					
Refineries	(5)	208,000	6,410 t/	5,710	150,000
Ingot makers 3/	(5)	121,000	10,100	10,100	121,000
Brass and wire-rod mills	(5)	844,000	64,700 t/	66,400	791,000
Foundries, etc. 3/	(5)	67,100	5,590	5,590	67,100
Smelter, total	(3)	1,000,000	79,700	86,100	945,000
Consumption:					
Apparent	(8)	3,110,000	239,000	NA	NA
Refined (reported)	(7)	3,030,000	205,000 t/	200,000	2,630,000
Purchased copper-base scrap	(9)	1,600,000	121,000 t/	121,000	1,490,000
Stocks at end of period:					
Total refined	(11)	334,000	895,000 t/	947,000	XX
Blister, etc.	(11)	122,000	85,400 t/	93,600	XX
Prices:					
U.S. producer cathode (cents per pound) 4/	(12)	88.163	70.560	72.050	76.854
Imports: 5/					
Ores and concentrates 6/	(14)	53	--	NA	NA
Refined	(14)	1,060,000	110,000	NA	NA
Exports: 5/					
Ores and concentrates 6/	(15)	107,000	2,820	NA	NA
Refined	(15)	93,600	5,290	NA	NA

t/ Revised. NA Not available. XX Not applicable. -- Zero.

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 detailed tables where these data are located.

3/ Monthly data and 2001 cumulative data estimated based on 2000 monthly average.

4/ Source: Platts Metals Week.

5/ Source: U.S. Census Bureau.

6/ Copper content.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER
IN THE UNITED STATES 1/

(Metric tons)

Period	Arizona	Others 2/	Total
<u>2000:</u>			
December	75,600	47,000	123,000
Year	<u>928,000</u>	<u>516,000</u>	<u>1,440,000</u>
<u>2001:</u>			
January	75,800 r/	41,400 r/	117,000
February	68,400 r/	41,600 r/	110,000
March	68,200 r/	43,100 r/	111,000
April	69,800	40,600	110,000
May	78,700	43,600	122,000
June	76,000 r/	39,500	115,000 r/
July	72,800	37,000	110,000
August	73,000	35,900	109,000
September	73,000	33,600	107,000
October	76,800	36,600	113,000
November r/	73,300	29,000	102,000
December	74,400	35,800	110,000
January - December	<u>880,000</u>	<u>458,000</u>	<u>1,340,000</u>

r/ Revised.

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

2/ Includes production from Alaska, Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.

TABLE 3
COPPER PRODUCED AT SMELTERS IN THE
UNITED STATES, BY SOURCE 1/ 2/

(Metric tons, copper content)

Period	Domestic and foreign ores	Scrap	Total
<u>2000:</u>			
December	W	W	88,500
Year	<u>W</u>	<u>W</u>	<u>1,000,000</u>
<u>2001:</u>			
January	W	W	88,400
February	W	W	78,800
March	W	W	78,800
April	W	W	81,900
May	W	W	84,700
June	W	W	80,200
July	W	W	58,100
August	W	W	71,100
September	W	W	70,900
October	W	W	86,300
November	W	W	79,700
December	W	W	86,100
January - December	<u>W</u>	<u>W</u>	<u>945,000</u>

W Withheld to avoid disclosing company proprietary data included in "Total."

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

2/ Data 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 RECOVERY 1/

(Metric tons)

Period	Primary materials				Scrap			Total refined
	Electrolytically refined 2/		Electrowon	Total	Electrolytically refined 2/	Fire refined	Total	
	Domestic 3/	Foreign						
2000:								
December	70,500	21,000	46,800	138,000	W	W	15,600	154,000
Year	865,000	163,000	557,000	1,590,000	W	W	208,000	1,790,000
2001:								
January	78,000	16,700	45,200	140,000	W	W	15,400	155,000
February	69,100	14,700	43,100	127,000	W	W	16,800	144,000
March	77,400	11,800	50,400	140,000	W	W	16,700	156,000
April	66,500	12,900	54,300	134,000	W	W	13,400	147,000
May	72,500	15,100	55,000	143,000	W	W	12,800	155,000
June	71,100	15,500	55,100	142,000	W	W	13,200	155,000
July	64,800 r/	14,300	55,100	134,000	W	W	13,900	148,000
August	56,300	19,900	56,300	132,000	W	W	13,500	146,000
September	64,300	17,900	54,000	136,000	W	W	12,300	149,000
October	61,300	17,400	55,000	134,000	W	W	10,200	144,000
November r/	71,200	16,100	54,000	141,000	W	W	6,420	148,000
December	75,800	12,900	53,200	142,000	W	W	5,710	148,000
January - December	828,000	185,000	631,000	1,640,000	W	W	150,000	1,790,000

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Scrap Total."

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

2/ Based on source of material at smelter level.

3/ Includes fire-refined copper.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP 1/

(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	
2000:									
December	3,790	11,800	2,490	7,560	59,600	1,730	1,230	4,360	92,600
Year	39,000	169,000	29,900	90,700	822,000	22,200	14,700	52,400	1,240,000
2001:									
January	2,850	12,500	2,490	7,560	67,000	2,580	1,230	4,360	101,000
February	3,470	13,400	2,490	7,560	65,700	2,630	1,230	4,360	101,000
March	3,120	13,600	2,490	7,560	67,200	2,260	1,230	4,360	102,000
April	2,680	10,700	2,490	7,560	66,700	1,770	1,230	4,360	97,500
May	2,240	10,500	2,490	7,560	65,700	297	1,230	4,360	94,400
June	2,730	10,500	2,490	7,560	62,600 r/	1,060	1,230	4,360	92,600 r/
July	3,470	10,400	2,490	7,560	57,300 r/	969	1,230	4,360	87,800 r/
August	3,240	10,300	2,490	7,560	62,600 r/	1,790	1,230	4,360	93,500 r/
September	2,800	9,480	2,490	7,560	61,500	1,140	1,230	4,360	90,500
October	3,180	7,060 r/	2,490	7,560	67,800 r/	1,790	1,230	4,360	95,400 r/
November	2,030	4,380 r/	2,490	7,560	63,100 r/	1,640	1,230	4,360	86,800 r/
December	1,710	4,000	2,490	7,560	64,500	1,880	1,230	4,360	87,800
January - December	33,500	117,000	29,900	90,700	772,000	19,800	14,700	52,400	1,130,000

r/ Revised.

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

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

3/ Monthly data and 2001 cumulative data estimated based on 2000 annual data.

4/ Does not include an estimate, based on reported 2000 data, of 3,790 tons per month from new scrap and 2,380 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 MILL 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
2000:						
December	118,000	164,000	118,000	155,000	54,800	34,700
Year	1,670,000	2,080,000	1,670,000	2,100,000	XX	XX
2001:						
January	127,000	176,000	126,000	173,000	56,100	37,500
February	129,000	151,000	127,000	150,000	57,900	37,800
March	133,000	163,000	132,000	169,000	59,000	31,900
April	127,000	152,000	127,000	148,000	58,800	31,600
May	125,000	152,000	127,000	154,000	57,300	30,000
June	125,000	150,000	129,000	150,000	53,200	30,300
July	108,000 r/	158,000	108,000 r/	156,000	53,100	30,100
August	128,000	163,000	128,000	163,000	52,800	30,000
September	122,000	158,000	121,000	159,000	53,800	28,800
October	124,000	164,000 r/	123,000	165,000	55,100	25,700 r/
November	117,000 r/	157,000 r/	118,000 r/	155,000 r/	55,300	27,500 r/
December	116,000	153,000	115,000	154,000	56,700	26,700
January - December	1,480,000	1,900,000	1,480,000	1,900,000	XX	XX

r/ Revised. XX Not applicable.

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

TABLE 7
CONSUMPTION OF REFINED COPPER 1/

(Metric tons)

Period and item	Wire-rod mills	Brass mills	Other plants 2/	Total
2000:				
December	174,000	49,900	5,360	229,000
Year	2,240,000	723,000	64,300	3,030,000
2001:				
January	192,000	58,000 r/	5,360	255,000 r/
February	163,000	57,500 r/	5,360	226,000 r/
March	175,000	62,900 r/	5,360	243,000 r/
April	160,000	53,500 r/	5,360	219,000 r/
May	156,000	55,600 r/	5,360	217,000
June	157,000	54,600 r/	5,360	217,000 r/
July	161,000	44,700	5,360	211,000
August	160,000	52,000	5,360	217,000
September	155,000	47,300	5,360	208,000
October	164,000 r/	47,000	5,360	217,000 r/
November	153,000 r/	46,300	5,360	205,000 r/
December:				
Cathodes	149,000	33,600	1,210	184,000
Wire bars	--	--	W	W
Ingots and ingot bars	--	1,520	1,760	3,280
Cakes and slabs	127	W	W	127
Billets and other	--	9,560	2,400	12,000
Total	149,000	44,700	5,360	200,000
January - December	1,940,000	624,000	64,300	2,630,000

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Billets and other." -- Zero.

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

2/ Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2000 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER 1/

(Metric tons)

Period	Refined copper production	Copper in old scrap 2/	Refined general imports 3/	Refined exports 3/	Stock change during period	Apparent consumption
2000:						
January - November	1,450,000 r/	335,000 r/	951,000	91,600	(241,000)	2,880,000 r/
December	138,000	27,900	73,700	2,070	8,760	229,000
Year	1,590,000	363,000	1,020,000	93,600	(232,000)	3,110,000
2001:						
January	140,000	29,600 r/	123,000	1,180	23,600	268,000
February	127,000	30,500 r/	88,200	2,070	5,960 r/	238,000
March	140,000	30,400 r/	101,000	2,880	70,400 r/	197,000 r/
April	134,000	27,000 r/	107,000	1,890	70,600 r/	195,000
May	143,000	25,400 r/	72,400	1,020	13,700 r/	226,000 r/
June	142,000	26,100 r/	89,000	815	46,200 r/	210,000 r/
July	134,000	25,900 r/	95,800	1,650	109,000	145,000
August	132,000	26,600 r/	80,900	2,590	31,000	206,000
September	136,000	25,200 r/	114,000	1,190	88,900 r/	185,000 r/
October	134,000	23,400 r/	78,600	4,630	35,400 r/	196,000 r/
November	141,000 r/	20,600 r/	148,000	5,290	65,500 r/	239,000
December	142,000	20,400	NA	NA	52,200	NA
January - November	1,500,000	291,000	1,100,000	25,200	561,000	2,310,000

r/ Revised. NA Not available.

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

2/ Includes 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 2000 data.

3/ Source: U.S. Census Bureau.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/

(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	
2000:									
December	5,900	16,300	3,670	10,400	76,200	1,790	2,180	4,740	121,000
Year	58,700	212,000	44,000	125,000	1,050,000	23,000	26,200	56,800	1,600,000
2001:									
January	5,460	14,900	3,670	10,400	85,300	2,650	2,180	4,740	129,000
February	6,610	15,600	3,670	10,400	82,500	2,700	2,180	4,740	128,000
March	6,430	14,000	3,670	10,400	85,100	2,330	2,180	4,740	129,000
April	6,460	14,800	3,670	10,400	84,600	1,820	2,180	4,740	129,000
May	3,400	17,400	3,670	10,400	84,000 r/	338	2,180	4,740	126,000
June	3,400	16,200	3,670	10,400	79,900 r/	1,120	2,180	4,740	122,000
July	3,590	16,500	3,670	10,400	72,200 r/	1,010	2,180	4,740	114,000 r/
August	3,530 r/	16,900	3,670	10,400	79,400 r/	1,840	2,180	4,740	123,000
September	3,530 r/	15,900	3,670	10,400	77,800	1,190	2,180	4,740	119,000
October	3,620 r/	15,700 r/	3,670	10,400	85,700 r/	1,840	2,180	4,740	128,000
November	3,530 r/	14,700	3,670	10,400	79,600 r/	1,690	2,180	4,740	121,000 r/
December	3,520	13,500	3,670	10,400	81,500	1,930	2,180	4,740	121,000
January - December	53,100	186,000	44,000	125,000	978,000	20,500	26,200	56,800	1,490,000

r/ Revised.

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

2/ Monthly data and 2001 cumulative data estimated from 2000 annual data.

3/ Consumption 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	2000	2001			Year
		October	November	December	
No. 1 wire and heavy:					
Smelters and refiners	86,000	4,950	4,340	4,300	69,400
Brass and wire-rod mills	438,000	37,600 r/	35,100 r/	36,100	430,000
No. 2 mixed heavy and light:					
Smelters and refiners	133,000	7,460	7,000	5,880	120,000
Brass and wire-rod mills	13,800	517	292	348	5,340
Total unalloyed scrap:					
Smelters and refiners	219,000	12,400	11,300	10,200	190,000
Brass and wire-rod mills	452,000	38,100 r/	35,300 r/	36,400	436,000
Red brass: 3/					
All plants	62,000	4,530	4,650	4,650	59,800
Leaded yellow brass:					
All plants	413,000	31,400	27,100 r/	28,200	353,000
Yellow and low brass:					
All plants	103,000	10,600	10,500	10,500	126,000
Cartridge cases and brass:					
Smelters and refiners	W	W	W	W	W
Brass mills	72,000	5,560	6,260	6,250	66,700
Auto radiators:					
Smelters and refiners	48,300	3,620	3,620	3,620	47,200
Bronzes:					
Smelters and refiners	11,100	922	922	922	11,100
Brass mills	11,300	1,010	955	955	8,560
Nickel-copper alloys:					
All plants	27,600	1,010	1,070	1,050	13,400
Low grade and residues:					
Smelters and refiners	75,300	1,120	1,120	1,120	50,100
Other alloy scrap: 4/					
Smelters and refiners 5/	11,900	138	138	138	8,890
Brass mills	6,200	565	565	565	5,740
Total alloyed scrap:					
Smelters and refiners	221,000	11,000	11,000	11,000	188,000
Brass mills	620,000	49,500	45,900 r/	47,000	563,000
Total scrap:					
Smelters and refiners	440,000	23,400	22,300	21,100	378,000
Brass and wire-rod mills	1,070,000	87,600 r/	81,300 r/	83,400	998,000

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."

1/ Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 6,920 tons of scrap per month in 2000; monthly data include estimates of about 15,500 tons of scrap per month consumed by ingot makers and several smelters that report on an annual basis.

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

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

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

5/ Includes items indicated by symbol W.

TABLE 11
COPPER STOCKS AT END OF PERIOD 1/

(Metric tons)

Period	Crude copper 2/	Refined copper					LME 6/	Total refined
		Refineries 3/	Wire rod mills 3/	Brass mills 3/	Other 4/	Comex 5/		
2000:								
December	122,000	14,800	28,600	23,600	4,680	58,700	204,000	334,000
2001:								
January	102,000	15,100	25,200	25,900	4,680	71,900	215,000	358,000
February	105,000	18,700	23,000	28,100 r/	4,680	81,600	208,000	364,000 r/
March	102,000	22,600	27,600	31,700 r/	4,680	95,400	252,000	434,000
April	95,600	27,500	26,500	34,700 r/	4,680	115,000	297,000	505,000
May	98,100	28,100	27,300	23,100 r/	4,680	137,000	298,000	519,000 r/
June	92,500	26,600	30,200	20,900	4,680	150,000	333,000	565,000
July	89,500	20,000	30,800	23,400	4,680	160,000	435,000	674,000
August	93,400	18,400	28,900	24,300	4,680	170,000	459,000	705,000
September	88,700	17,700	28,200 r/	22,300 r/	4,680	181,000	540,000	794,000 r/
October	104,000	19,700 r/	25,700 r/	21,300	4,680	191,000	566,000	829,000 r/
November	85,400 r/	23,900 r/	24,500	25,900	4,680	215,000	601,000	895,000 r/
December	93,600	25,200	29,900	26,600	4,680	244,000	617,000	947,000

r/ Revised.

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

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

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

4/ Monthly estimates based on reported and 2000 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

5/ Commodity Exchange Inc., New York.

6/ London 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
2000:			
December	91.271	86.923	83.922
Year	88.163	83.971	82.239
2001:			
January	88.018	83.700	81.059
February	86.323	82.005	80.069
March	84.384	80.066	78.856
April	80.578	76.260	75.467
May	81.166	76.848	76.288
June	75.501	72.573	72.943
July	72.261	69.438	69.166
August	71.559	67.341	66.407
September	69.628	65.428	64.682
October	67.422	63.204	62.460
November	70.560	66.093	64.747
December	72.050	67.832	66.740
Year	76.854	72.567	71.574

1/ Listed as "U.S. producer cathode."

2/ Listed 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
2000:				
December	82.28	66.85	55.00	42.00
Year	80.67	64.99	51.43	39.95
2001:				
January	82.45	68.05	56.45	44.10
February	77.84	65.97	53.00	42.00
March	76.16	63.74	53.09	42.00
April	72.98	61.36	51.16	42.00
May	72.82	61.95	51.86	42.00
June	68.29	57.99	51.52	42.00
July	66.46	57.50	50.00	42.00
August	64.33	55.37	46.00	39.00
September	63.39	54.46	46.00	40.00
October	61.39	52.78	44.48	38.39
November	63.45	53.82	40.09	37.09
December	65.87	54.47	41.47	37.00
Year	69.62	58.96	48.76	40.63

Source: American Metal Market.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2001			2001			2001			2001		
	2000	January - November	January - November	2000	January - November	January - November	2000	January - November	January - November	2000	January - November	January - November
Bulgaria	--	--	--	--	--	--	4,040	--	497	56	--	--
Canada	--	--	7,210	20	38	43	53,500	7,460	73,200	268,000	26,600	239,000
Chile	--	--	6,510	1	--	--	76,200	3,560	84,100	258,000	12,300	167,000
Finland	--	--	--	--	--	--	2,180	--	--	178	281	969
Indonesia	--	--	20,000	--	--	--	--	--	--	--	--	--
Italy	--	--	--	--	--	--	2,180	--	12,200	(2/)	--	--
Kazakhstan	--	--	--	--	--	--	--	--	--	54,900	37,000	78,400
Mexico	--	--	2,550	757	--	317	19,500	1,570	48,200	80,400	11,400	126,000
Namibia	--	--	--	--	--	--	2,750	1,010	6,840	--	--	--
Peru	--	--	40,200	--	--	--	5,960	3,970	22,600	311,000	20,400	259,000
Philippines	5	--	--	--	--	--	--	--	4,990	--	--	999
Russia	--	--	--	--	--	--	117	--	115	58,900	--	22,800
Spain	--	--	--	--	--	--	5,670	--	4,420	--	--	--
Taiwan	--	--	--	644	69	541	--	--	--	101	--	34
Turkey	--	--	--	--	--	--	11,000	--	--	1,100	--	--
Other	48	--	--	261 r/	--	13	1,700 r/	--	3,010	23,800	2,360	22,200
Total	53	--	76,500	1,680	107	914	185,000	17,600	260,000	1,060,000	110,000	916,000

r/ Revised. -- Zero.

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

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2001			2001			2001			2001		
	2000	November	January - November	2000	November	January - November	2000	November	January - November	2000	November	January - November
Belgium	--	--	18	48	--	--	397	4	1,480	--	--	30
Brazil	3,090	12	34	3	--	5	33	--	--	15	--	3
Canada	45,000	1,380	28,700	13,100	288	6,520	10,400	1,250	12,300	5,990	495	6,100
China	8,500	1,110	2,170	10	(2/)	3	61	--	87	52,700	4,600	8,520
Egypt	--	--	--	--	--	--	--	--	2	1	--	2,160
Finland	4,680	--	--	--	--	--	--	--	--	19	--	(2/)
France	13	--	1	3	--	64	226	20	1,860	34	3	56
Germany	6,100	78	443	--	--	50	383	40	943	123	28	155
Hong Kong	111	--	87	3	--	2	2,330	364	2,350	1,750	1	2,320
Israel	47	--	836	--	--	18	83	--	54	11	--	6
Italy	7	--	20	5	--	--	510	15	347	97	--	27
Japan	483	--	13	56	--	8	1,990	20	209	74	16	460
Korea, Republic of	1,180	17	682	10	--	1,020	589	149	1,200	538	--	48
Mexico	31,500	203	9,130	17,900	2,170	15,200	1,680	--	22	2,980	21	817
Philippines	4,300	--	--	--	--	--	89	--	83	4	--	--
Singapore	115	20	139	--	(2/)	(2/)	953	40	387	7,220	--	14
Taiwan	65	2	334	93	14	46	2,230	107	1,070	20,400	--	122
Thailand	--	2	22	--	--	--	297	69	247	300	--	--
United Kingdom	600	--	269	40	7	49	439	40	412	33	99	420
Venezuela	10	--	501	--	--	--	7	--	5	12	--	140
Other	1,130 r/	--	77	87 r/	95	320	640 r/	83	627	1,280 r/	22	559
Total	107,000	2,820	43,500	31,300	2,580	23,300	23,300	2,200	23,700	93,600	5,290	22,000

r/ Revised. -- Zero.

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

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16
U.S. COPPER SCRAP TRADE 1/

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	2001			2001			2001			2001		
	2000	November	January - November	2000	November	January - November	2000	November	January - November	2000	November	January - November
Canada	9,130	1,600	9,760	54,400	3,700	43,300	45,300	1,740	37,100	41,400	2,350	30,200
China	--	--	41	760	12	15	124,000	10,100	146,000	86,100	9,870	126,000
Colombia	146	--	--	2,670	12	858	--	--	--	40	--	--
Costa Rica	947	52	795	876	29	571	20	--	--	5	--	3
Dominican Republic	1,480	132	1,400	1,530	77	1,450	20	--	--	--	--	--
Germany	283	--	27	129	--	62	2,070	430	5,760	5,610	732	8,450
Guatemala	536	36	426	1,730	229	1,870	--	--	--	--	--	--
Honduras	402	19	458	776	28	638	--	--	--	1	--	--
Hong Kong	10	--	--	17	--	--	6,900	628	3,530	6,240	504	4,680
India	--	--	--	--	--	--	933	60	2,580	24,000	2,890	30,500
Japan	124	11	165	37	--	--	15,900	1,160	12,600	16,200	1,010	12,200
Korea, Republic of	--	--	--	590	(2/)	3	20,600	1,340	22,900	39,700	1,350	16,000
Mexico	15,100	773	13,000	29,400	1,570	22,700	2,760	227	2,720	14,700	227	4,230
Peru	277	--	347	99	--	92	--	--	--	2	--	--
Spain	--	--	--	4,100	--	47	589	38	549	5,460	17	2,310
Switzerland	--	--	--	24	20	44	126	18	596	966	390	3,410
Taiwan	17	--	--	1,150	24	496	5,080	978	8,050	6,190	438	5,000
United Kingdom	11	--	39	2,550	117	823	113	--	36	713	39	393
Venezuela	418	--	42	1,760	82	837	156	--	--	--	--	--
Other	1,940	110	1,850	10,200	330	5,770	2,970	209	2,150	10,500	341	5,200
Total	30,900	2,730	28,300	113,000	6,240	79,500	228,000	16,900	245,000	258,000	20,100	249,000

-- Zero.

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

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.