

Mineral Industry Surveys

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COPPER IN OCTOBER 2006

Average daily mine production of copper in the United States rose by about 3% from that in September and was about 18% above production in October 2005, according to data compiled by the U.S. Geological Survey (USGS). Smelter production in October plummeted for the second consecutive month. In September, Kennecott Utah Copper Corp. (Salt Lake City, UT) began a 45-day planned maintenance shutdown at its Garfield, UT, smelter that extended through most of October. In October, Phelps Dodge Corp. (Phoenix, AZ) closed its Miami, AZ, smelter for an approximate 30-day maintenance period. The closure of 2 out of 3 primary domestic smelters resulted in smelter output in October falling to only about 40% of that in August (Platts Metals Week, 2006).

Downstream, production of electrolytic refined copper fell in October by about 24%, and total refined production by about 12% to its lowest monthly total in at least 50 years. Consumption of refined copper in October declined by about 14% from that in September owing to a 16% decline in wire-rod production, which was in part attributable to a shortage of cathode. Following a build-up of inventories in September, shipments of wire rod in October declined by only about 7% but were down by 13% compared with shipments in October 2005.

The U.S. Census Bureau confirmed that export shipments of copper concentrate to China early in the year were reported as gross weight and not the purported copper content. Based on this, and low average unit values reported by the Census Bureau for most copper concentrate exports, the USGS adjusted current and historic 2006 concentrate export data (table 15) to reflect the estimated copper content of the concentrates produced at nonintegrated U.S. copper mines.

According to data compiled by the International Copper Study Group (ICSG) (2006), the apparent world balance between refined copper production and refined copper use for the first 9 months of 2006 indicates a production surplus of about 81,000 metric tons (t). This compares with a production deficit of 319,000 t for the same period in 2005. Note that in its calculation of the refined copper balance, the ICSG does not take into account changes in China's SRB stocks, which are unreported and which might affect calculation of China's apparent consumption. World refined copper use for the first 9 months of 2006 increased by about 2.5% compared with use in the same period of 2005. Europe was the only region showing growth. Total European usage increased by about 12%, while apparent usage in the European Union-15 countries increased by 15%. In Asia, usage was down by 1%, as a decrease of about 6% in Chinese apparent use more than offset a growth of about 6% in Japan and 5% in India. In North America, use declined by about 2%.

On the production side, ICSG data indicate that world mine production of copper for the first 9 months of 2006 was essentially unchanged from that in the same period of 2005. Owing to production difficulties and labor unrest, estimated global mine capacity utilization decreased to about 86% from 88% in the same period of 2005. Total world refined production increased by about 6% in the first 9 months of 2006 compared with that of the same period of 2005: Primary production was up by about 5%, and secondary production was up by 13%.

References Cited

Platts Metals Week, 2006, Smelter shutdown hits Kennecott output: Platts Metals Week, v. 77, no. 43, October 23, p. 7.

International Copper Study Group, 2006, Copper—Preliminary data for September 2006: Lisbon, Portugal, International Copper Study Group press release, December 18, 1 p.

 $\label{table 1} \textbf{TABLE 1}$ SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1

(Metric tons, unless otherwise specified)

				2006	
	Source				January -
	table ²	2005 ^p	September	October	October
Production:					
Primary:	-				
Mine, recoverable	(2)	1,140,000	98,200 ^r	104,000	996,000
Refinery:	_				
Electrolytic:	_				
Domestic and foreign	(4)	654,000	55,400 ^r	41,800	568,000
Electrowon	(4)	554,000	42,800 ^r	44,200	442,000
Total	(4)	1,210,000	98,200	86,100	1,010,000
Secondary recoverable copper:	_				
Refineries	(5)	47,200	3,770	3,700	37,300
Ingot makers ³	(5)	89,500	7,460	7,460	74,600
Brass and wire-rod mills	(5)	697,000	58,200	58,200	617,000
Foundries, etc. ³	(5)	58,400	4,870	4,870	48,700
Smelter, total	(3)	523,000	33,200	18,700	416,000
Consumption:					
Apparent	(8)	2,400,000	195,000	NA	NA
Refined (reported)	(7)	2,270,000	180,000 ^r	155,000	1,850,000
Purchased copper-base scrap	(9)	1,130,000	94,600	94,500	986,000
Stocks at end of period:	_				
Total refined	(11)	65,900	104,000 ^r	112,000	XX
Blister, etc.	(11)	44,300	27,300 ^r	24,300	XX
Prices:	_				
U.S. producer cathode (cents per pound) ⁴	(12)	173.493	352.184	345.226	324.825
Imports: ⁵	_				
Ores and concentrates ⁶	(14)	223		NA	NA
Refined	(14)	1,000,000	106,000	NA	NA
Exports: ⁵	-				
Ores and concentrates ⁶	(15)	137,000	9,300	NA	NA
Refined	(15)	39,500	9,330	NA	NA

^pPreliminary. ^rRevised. NA Not available. XX Not applicable. -- Zero.

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

 $^{^2\}mbox{Numbers}$ in parentheses refer to the significant tables where these data are located.

 $^{^3\}mbox{Monthly}$ data and 2005 cumulative data estimated based on 2004 monthly average.

⁴Source: Platts Metals Week.

⁵Source: U.S. Census Bureau.

 $^{^6}$ Copper content.

TABLE 2 $\label{eq:mine_production} \mbox{MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES}^1$

(Metric tons)

	Rec	overable coppe	r		Contained copper	
Period	Arizona	Others ²	Total	Electrowon	Concentrates ³	Total
2005: ^p						
January - October	580,000	377,000 ^r	957,000 ^r	460,000 ^r	512,000 ^r	972,000 ^r
October	53,300	35,200	88,500	45,200	44,500	89,700
November	52,800	34,100	86,900	45,800	42,300	88,100
December	57,500	38,300	95,800	48,000	49,200	97,200
Year	690,000	450,000	1,140,000	554,000	603,000	1,160,000
2006:						
January	55,900	36,600	92,600	43,000	51,300	94,300
February	52,700	34,400	87,100	39,600	49,200	88,800
March	60,800	44,400	105,000	45,300	62,000	107,000
April	58,900	39,000	97,900	44,400	55,400	99,900
May	62,000 ^r	43,800 r	106,000	47,900 ^r	60,400 ^r	108,000
June	60,500 ^r	41,000 r	101,000	45,800 ^r	57,600	103,000
July	60,400 ^r	42,600 ^r	103,000	45,500 ^r	59,600	105,000
August	59,900 ^r	40,600 ^r	100,000	43,700	58,700 ^r	102,000
September	59,300 ^r	38,900 ^r	98,200 ^r	42,800 ^r	57,400 ^r	100,000 ^r
October	59,600	44,700	104,000	44,200	62,100	106,000
January - October	590,000	406,000	996,000	442,000	574,000	1,020,000

^pPreliminary. ^rRevised.

 $\label{eq:table 3} \textbf{COPPER PRODUCED AT SMELTERS IN}$ THE UNITED STATES, BY SOURCE $^{1,\,2}$

(Metric tons, copper content)

Anode
production
434,000
51,800
47,500
42,200
523,000
47,500
47,900
45,800
45,900
51,000
38,100
42,500
45,100
33,200
18,700
416,000

Preliminary.

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

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

³Includes copper content of precipitates and other metal concentrates.

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

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

 ${\bf TABLE~4}$ PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1

(Metric tons)

	Prin	nary materials			
	Electrolytically				Total
Period	refined ²	Electrowon	Total	Scrap	refined
2005: ^p					
January - October r	532,000	460,000	992,000	39,600	1,030,000
October	55,600	45,200	101,000	3,700	104,000
November	58,700	45,800	105,000	3,760	108,000
December	63,100	48,000	111,000	3,880	115,000
Year	654,000	554,000	1,210,000	47,200	1,260,000
2006:					
January	53,000	43,000	96,000	3,820	99,900
February	57,300	39,600	96,900	3,720	101,000
March	68,400	45,300	114,000	3,770	117,000
April	60,800	44,400	105,000	3,700	109,000
May	61,500	47,900 ^r	109,000	3,730	113,000
June	64,600 ^r	45,800 ^r	110,000 ^r	3,700	114,000
July	51,300 ^r	45,500 ^r	96,800 ^r	3,700	100,000
August	53,800 ^r	43,700	97,500 ^r	3,700	101,000
September	55,400 ^r	42,800 ^r	98,200 ^r	3,770	102,000
October	41,800	44,200	86,100	3,700	89,800
January - October	568,000	442,000	1,010,000	37,300	1,050,000

^pPreliminary. ^rRevised.

 ${\it TABLE~5}$ COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP 1

(Metric tons, copper content)

	Refin	eries ²	Ingot m	akers ³	Brass and w	ire-rod mills	Foundrie	es, etc. ³	
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total ⁴
2005: ^p									
January - October	13,400	26,200 ^r	21,400 r	53,200 ^r	555,000	26,900	20,400 r	28,300 r	745,000 ^r
October	1,340	2,360	2,140	5,320	59,000	1,410	2,040	2,830	76,400
November	1,340	2,420	2,140	5,320	57,300	1,410	2,040	2,830	74,800
December	1,340	2,550	2,140	5,320	54,500	1,490	2,040	2,830	72,200
Year	16,000	31,200	25,700	63,800	667,000	29,800	24,500	33,900	892,000
2006:	= .								
January	1,340	2,480	2,140	5,320	63,500	1,460	2,040	2,830	81,100
February	1,340	2,390	2,140	5,320	58,300	496	2,040	2,830	74,900
March	1,340	2,430	2,140	5,320	62,700	1,560	2,040	2,830	80,400
April	1,340	2,370	2,140	5,320	60,700	1,060	2,040	2,830	77,800
May	1,340	2,400	2,140	5,320	62,900	1,840	2,040	2,830	80,800
June	1,340	2,370	2,140	5,320	63,000	1,400	2,040	2,830	80,400
July	1,340	2,370	2,140	5,320	59,400	697	2,040	2,830	76,100
August	1,340	2,370	2,140	5,320	60,800	838	2,040	2,830	77,700
September	1,340	2,440	2,140	5,320	57,400	783	2,040	2,830	74,300
October	1,340	2,370	2,140	5,320	57,400	783	2,040	2,830	74,200
January - October	13,400	24,000	21,400	53,200	606,000	10,900	20,400	28,300	778,000

^pPreliminary. ^rRevised.

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

²From domestic and foreign source materials.

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 2005 cumulative data estimated based on 2004 annual data.

⁴Does not include an estimate, based on reported 2004 data of 3,096 tons per month from new scrap and 2,016 tons per month of copper recovered from scrap other than copper-base.

 ${\bf TABLE~6}$ PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES 1

	Pro	duction	Shi	pments	Stocks, end of period	
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2005: ^p						
January - October	1,150,000	1,430,000 ^r	1,160,000	1,440,000	XX	XX
October	125,000	143,000	124,000	140,000	45,900	26,700
November	118,000	134,000	119,000	136,000	44,900	25,400
December	104,000	131,000	101,000	128,000	47,900	25,100
Year	1,370,000	1,700,000	1,380,000	1,700,000	XX	XX
2006:						
January	112,000	155,000	111,000	148,000	48,800	32,100
February	114,000	125,000	114,000	133,000	48,500	22,000
March	117,000	143,000	118,000	144,000	49,900	21,100
April	115,000	137,000	115,000	139,000	49,100	21,300
May	120,000	145,000	122,000	149,000	47,300	20,700
June	118,000	144,000	117,000	144,000	48,500	20,200
July	101,000	135,000	104,000	133,000	45,700	22,700
August	112,000	137,000	112,000	135,000	46,000	24,700
September	107,000	137,000	108,000	131,000	45,300	31,200
October	111,000	115,000	109,000	122,000	47,300	24,700
January - October	1,130,000	1,370,000	1,130,000	1,380,000	XX	XX

^pPreliminary. ^rRevised. XX Not applicable.

 $\label{eq:table 7} \textbf{TABLE 7}$ CONSUMPTION OF REFINED COPPER 1

(Metric tons)

	Brass	Wire-rod	Other	
Period and item	mills	mills	plants ²	Total
2005: ^p				
January - October	444,000	1,420,000 r	51,600	1,910,000 ^r
October	46,200	144,000	5,160	195,000
November	42,900	135,000	5,160	183,000
December	41,200	126,000	5,160	173,000
Year	528,000	1,680,000	61,900	2,270,000
2006:				
January	44,300	159,000	5,160	209,000
February	42,600	125,000	5,160	172,000
March	45,000	135,000	5,160	185,000
April	42,800	141,000	5,160	189,000
May	47,200	147,000	5,160	199,000
June	41,500	148,000	5,160	195,000
July	37,200	139,000	5,160	182,000
August:	38,300	139,000	5,160	182,000
September:	38,500	136,000	5,160	180,000
October:	1			
Cathodes	28,200	110,000	954	140,000
Wire bars			(3)	(3)
Ingots and ingot bars	2,030		2,130	4,160
Cakes and slabs	(3)		(3)	(3)
Billets and other	9,600		2,080	11,700
Total	39,900	110,000	5,160	155,000
January - October	417,000	1,380,000	51,600	1,850,000

^pPreliminary. ^rRevised. -- Zero.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

¹Data 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 2004 annual data.

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

 $\label{eq:table 8} \textbf{U.S.} \ \textbf{APPARENT CONSUMPTION OF COPPER}^1$

(Metric tons)

Period	Refined copper production	Copper in old scrap ²	Refined general imports ³	Refined exports ³	Stock change during period	Apparent consumption
2005: ^p	-	•	•	•		
January - October r	992,000	153,000	775,000	34,700	(70,900)	1,960,000
October	101,000	13,800	99,100	3,350	(4,470)	215,000
November	105,000	13,800	99,700	1,760	(4,780)	221,000
December	111,000	14,000	102,000	3,020	4,960	219,000
Year	1,210,000	181,000	977,000	39,500	(70,700)	2,400,000
2006:						
January	96,000	14,000	111,000	5,600	16,200	200,000
February	96,900	12,900	108,000	7,320	24,200	187,000
March	114,000	14,000	80,100	6,780	2,420	199,000
April	105,000	13,400	69,100	9,600	(18,500)	197,000
May	109,000	14,200	100,000	6,270	(2,850) r	220,000
June	110,000 ^r	13,800	94,100	13,100	(11,000) r	216,000
July	96,800 ^r	13,100	91,400	6,010	8,610 r	187,000 ^r
August	97,500 ^r	13,200	101,000	9,560	5,610 ^r	197,000 ^r
September	98,200 ^r	13,200	106,000	9,330	13,200 r	195,000
October	86,100	13,200	NA	NA	8,560	NA
January - October	1,010,000	135,000	NA	NA	46,500	NA

Preliminary. Revised. NA Not available.

 ${\bf TABLE~9} \\ {\bf CONSUMPTION~OF~PURCHASED~COPPER-BASE~SCRAP}^1$

(Metric tons, gross weight)

	Smel	lters			Brass	and			
	and refineries		Ingot m	got makers ² wire-rod mills ³		d mills ³	Foundries, etc. ²		Total scrap
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	used
2005: ^p									
January - October	13,500	26,500 r	33,500 ^r	76,400 ^r	703,000	28,500	35,500 ^r	31,800 r	948,000 ^r
October	1,350	2,380	3,350	7,640	74,100	1,550	3,550	3,180	97,000
November	1,350	2,580	3,350	7,640	71,600	1,530	3,550	3,180	94,700
December	1,350	2,570	3,350	7,640	68,000	1,640	3,550	3,180	91,300
Year	16,200	31,700	40,200	91,700	842,000	31,600	42,600	38,200	1,130,000
2006:	_								
January	1,350	2,790	3,350	7,640	79,400	1,590	3,550	3,180	103,000
February	1,350	2,670	3,350	7,640	72,900	659	3,550	3,180	95,300
March	1,350	2,670	3,350	7,640	78,500	1,730	3,550	3,180	102,000
April	1,350	2,670	3,350	7,640	75,500	1,070	3,550	3,180	98,300
May	1,350	2,670	3,350	7,640	78,300	1,850	3,550	3,180	102,000
June	1,350	2,670	3,350	7,640	78,900	1,410	3,550	3,180	102,000
July	1,350	2,670	3,350	7,640	73,000	704	3,550	3,180	95,400
August	1,350	2,670	3,350	7,640	76,600	847	3,550	3,180	99,100
September	1,350	2,670	3,350	7,640	72,100	791	3,550	3,180	94,600
October	1,350	2,670	3,350	7,640	72,000	791	3,550	3,180	94,500
January - October	13,500	26,800	33,500	76,400	757,000	11,400	35,500	31,800	986,000

Preliminary. Revised.

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 2004 data.

³Source: U.S. Census Bureau.

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

²Monthly data and 2005 cumulative data estimated from 2004 annual data.

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

 $\label{table 10} {\tt CONSUMPTION\ OF\ PURCHASED\ COPPER-BASE\ SCRAP}^{1,\,2}$

	2005 ^p 200						
Scrap type and processor	January - October	Year	August	September	October	January - October	
No. 1 wire and heavy:							
Smelters and refiners	48,800 ^r	58,900	5,240	5,240	5,240	52,400	
Brass and wire-rod mills	317,000	382,000	33,300	31,500	32,000	343,000	
No. 2 mixed heavy and light:	-						
Smelters and refiners	21,400 °	25,200	1,520	1,590	1,510	15,500	
Brass and wire-rod mills	4,570	5,260	1,190	1,200	1,140	11,500	
Total unalloyed scrap:							
Smelters and refiners	70,200 ^r	84,100	6,760	6,830	6,760	67,900	
Brass and wire-rod mills	322,000 ^r	387,000	34,500	32,700	33,100	354,000	
Red brass: ³							
All plants	33,700 ^r	40,700	3,170	3,150	3,100	32,600	
Leaded yellow brass:	-						
All plants	161,000 ^r	191,000	15,200	15,600	14,700	158,000	
Yellow and low brass:	-						
All plants	147,000	175,000	17,300	14,500	15,200	154,000	
Cartridge cases and brass:	=						
All plants	80,100 ^r	94,500	8,330	8,080	7,800	79,700	
Auto radiators:	=						
Smelters and refiners	20,800 ^r	25,000	2,080	2,080	2,080	20,800	
Bronzes:	_						
Smelters and refiners	9,250 ^r	11,100	925	925	925	9,250	
Brass mills	4,680 ^r	5,790	554	575	501	5,950	
Nickel-copper alloys:	-						
All plants	15,600	18,200	1,610	1,550	1,500	16,300	
Low grade and residues:	-						
Smelters and refiners	29,400 ^r	35,300	2,940	2,940	2,940	29,400	
Other alloy scrap: ⁴	_						
Smelters and refiners	940 ^r	1,130	94	94	94	940	
Brass mills	5,000 ^r	6,000	500	500	500	5,000	
Total alloyed scrap:							
Smelters and refiners	95,900 ^r	115,000	9,590	9,590	9,590	95,900	
Brass mills	412,000 ^r	488,000	43,100	40,400	39,800	416,000	
Total scrap:							
Smelters and refiners	166,000 ^r	199,000	16,400	16,400	16,300	164,000	
Brass and wire-rod mills	733,000 ^r	876,000	77,600	73,100	72,900	770,000	
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^pPreliminary. ^rRevised.

¹Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 6,728 tons of scrap per month based on 2004 annual data; monthly data include estimates of about 10,984 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.

$\label{eq:table 11} \text{COPPER STOCKS AT END OF PERIOD}^1$

(Metric tons)

		Refined copper						
	Crude		Wire-rod					Total
Period	copper ²	Refineries ³	$mills^3$	Brass mills ³	Other ⁴	Comex ⁵	LME^6	refined
2005: ^p								
October	50,900	6,640	17,200	21,900	5,750	3,350	10,800	65,700
November	42,900	6,210	18,400	23,400	5,750	3,340	3,830	60,900
December	44,300	8,190	20,400	24,500	5,750	6,180	800	65,900
2006:								
January	17,300	11,200	26,800	27,800	5,750	10,600	25	82,100
February	21,700	14,500	28,600	29,900	5,750	27,600		106,000
March	15,200	13,300	27,700	28,100	5,750	32,000	1,880	109,000
April	18,800	7,690	28,400	31,700	5,750	15,500	1,080	90,200
May	40,600	10,000 r	30,300	31,400	5,750	9,540	350	87,300
June	18,600 ^r	5,400 ^r	24,400	32,700	5,750	7,900	225	76,400 ^r
July	23,900 ^r	6,520 ^r	31,600	34,300	5,750	6,760		85,000 ^r
August	20,500 ^r	9,030 ^r	24,800	38,600	5,750	12,400		90,600 ^r
September	27,300 ^r	9,490 ^r	30,500	35,900	5,750	20,400	1,800	104,000 ^r
October	24,300	11,900	24,400	32,700	5,750	23,200	14,300	112,000

^pPreliminary. ^rRevised. -- Zero.

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

(Cents per pound)

	U.S. producers	Comex	LME
	delivered price	first	cash price
Period	cathode1	position ²	Grade A
2005:			
October	195.568	190.302	184.119
November	206.396	201.130	193.622
December	222.511	217.245	207.569
Year	173.493	168.227	166.837
2006:			
January	224.000	218.258	214.716
February	230.905	225.079	225.965
March	238.235	232.409	231.438
April	302.679	296.853	289.673
May	381.687	375.861	364.874
June	345.474	339.648	326.400
July	368.147	362.321	349.740
August	358.887	353.061	348.985
September	352.184	346.385	344.768
October	345.226	339.400	340.164
January - October	314.742	308.928	303.672

¹Listed as "U.S. producer cathode."

Sources: Platts Metals Week and American Metal Market.

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 reported and 2004 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.

²Listed as "Comex high grade first position."

 $\label{table 13} \textbf{NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP}$

(Cents per pound)

			Dealers	s (New York)	
	Brass mills	Refiners	No. 2	Red brass turnings and	
Month	No. 1 scrap	No. 2 scrap	Scrap	borings	
2005:					
October	176.90	162.95	99.00	65.00	
November	183.70	168.10	99.00	65.00	
December	201.59	179.59	117.91	74.07	
Year	153.46	137.28	95.92	61.10	
2006:					
January	208.32	188.91	125.00	82.50	
February	221.85	206.90	125.00	82.50	
March	229.26	225.24	170.00	77.50	
April	283.85	257.95	170.00	77.50	
May	355.17	322.74	170.00	77.50	
June	310.98	279.19	192.62	121.10	
July	333.43	273.15	197.35	118.20	
August	328.30	265.84	210.05	125.32	
September	320.65	282.05	208.10	125.30	
October	315.34	285.23	216.09	129.27	
January - October	290.72	258.72	178.42	101.67	

Source: American Metal Market.

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 $\label{table 14} \textbf{U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS}^1$

(Metric tons, copper content)

	(Ore and conce	entrate	Mat	Matte, ash and precipitates			lister and anoc	les	Refined		
		20	006		2006			20	06		2006	
Country or			January -			January -			January -			January -
territory	2005	September	September	2005	September	September	2005	September	September	2005	September	September
Austria										3,360		1,510
Brazil							10			30,500	2,020	19,200
Canada	2		191	138	87	440	86,500	8,200	65,400	296,000	23,700	196,000
Chile							41,700	10,500	57,100	429,000	59,400	425,000
Finland							65	99	784	2,910		
Germany					(2)	(2)	12			24,900	1,760	22,600
Japan							(2)		(2)	5,340	464	4,990
Kazakhstan										6,300	3,550	39,300
Mexico	221			37		17	3,870	467	2,280	28,900	1,130	15,700
Peru										154,000	14,100	130,000
Taiwan				1,180	120	869						
Other			1	287	26	103	16	20	21	23,200		7,840
Total	223		192	1,640	233	1,430	132,000	19,300	126,000	1,000,000	106,000	862,000

⁻⁻ Zero.

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

²Less than ½ unit.

 $\label{eq:table 15} \text{U.s. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS}^1$

(Metric tons, copper content)

	O:	re and concent	rate ²	Matte, ash and precipitates				Blister and and	des	Refined		
		2006			2006			2006			2006	
Country or			January -		-	January -			January -			January -
territory	2005	September	September	2005	September	September	2005	September	September	2005	September	September
Australia				11		1,840	43		43	67		64
Belgium	41			37		74	724		376	49		
Canada	18,300	3,840	16,300	30,900	4,630	56,300	20,500	311	3,710	2,070	7,550	55,400
China	75,700		19,300	9,650	62	5,720	343	81	320	19,000	682	7,810
Costa Rica	3			(3)		7	1			2	2	10
Germany				93	2	2	779	97	913	182		112
Hong Kong	2			1		2	3,190	177	2,870	7		22
India	149	5,200	5,200	1		3	58	10	160	6,650	316	3,430
Japan	28,700		12,400	70		2	2,230	21	466	5		(3)
Korea, Republic of	1	256	2,980	32		11	464	90	715	132		62
Mexico	6,380	2	11,800	682	2,960	8,070	2,660	55	308	9,860	281	4,990
Saudi Arabia							11			11		93
Singapore	19			20		29	491	20	340	13		
Spain	1,730		104				203		140			43
Sweden							3,190		1,820			2
Taiwan	15		16	14		9	1,680	100	1,170	180	3	191
Other	5,600	1	43	338	189	1,140	4,950	65	1,620	1,300	499	1,390
Total	137,000	9,300	68,200	41,800	7,840	73,200	41,600	1,030	15,000	39,500	9,330	73,600

⁻⁻ Zero.

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

²Data for 2006 adjusted by U.S. Geological Survey to reflect estimated copper content.

³Less than ½ unit.

 $\label{eq:table 16} \text{U.S. COPPER SCRAP IMPORTS}^1$

		Unalloyed		Alloyed					
		20	006		2006				
Country or			January -			January -			
territory	2005	September	September	2005	September	September			
Brazil				276	23	181			
Canada	9,080	768	5,770	47,700	3,030	34,500			
China			1	120	90	541			
Costa Rica	2,020	159	1,360	495	153	1,080			
Germany	85	1	32	76		1			
Guatemala	79	20	118	1,500	179	1,760			
Honduras	1,910	109	1,460	651	44	592			
Jamaica	269	28	245	125	27	102			
Japan	70	14	86	135	2	31			
Mexico	13,300	606	5,280	24,800	2,480	22,200			
Nicaragua	831	91	652	573	33	344			
Russia						101			
Singapore				102	91	317			
Taiwan	2			348	22	215			
United Kingdom	258	5	130	925	67	544			
Other	2,150	1,050	2,650	5,850	4,640	9,900			
Total	30,100	2,850	17,800	83,700	10,900	72,500			

⁻⁻ Zero.

 $^{^{1}\}mbox{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

TABLE 17
U.S. COPPER SCRAP EXPORTS¹

				Unalloyed						Alloyed		
			2006						2006			
		No. 1		No. 2		Other			Segregated		Unsegregated	
Country or			January -		January -		January -			January-		January-
territory	2005	September	September	September	September	September	September	2005	September	September	September	September
Belgium	644		156		22	66	898	6,890	251	1,290	1,250	8,640
Canada	27,900					9,200	57,300	13,900	861	10,900	3,260	21,300
China	265,000	7,980	32,800	10,000	90,000	8,790	53,900	182,000	11,700	95,200	11,300	79,100
Germany	10,600	238	1,890	96	443	1,200	7,330	9,990	764	5,400	486	7,500
Hong Kong	9,200		176	441	1,960	84	457	12,800	68	719	690	7,460
India	4,460		220				907	15,800	437	8,120	19	781
Japan	6,710	137	718	58	270	511	3,880	7,950	541	4,990	123	1,050
Korea, Republic of	27,200	455	7,620	219	2,860	793	6,830	10,200	857	9,090	152	298
Mexico	1,010	55	161			2	61	1,570		703	350	5,540
Spain	145		9		59		118	5,580	133	164	152	7,940
Taiwan	11,600	913	2,720	1,920	6,420	339	2,090	10,600	1,280	6,310	1	65
Thailand	874					40	178	475		225		
United Kingdom	276		1		4		80	3,440	28	363		
Other	1,120	27	1,060	13	90	45	1,180	10,200	555	2,550	266	5,720
Total	366,000	9,810	47,600	12,800	102,000	21,100	135,000	291,000	17,500	146,000	18,100	145,000

⁻⁻ Zero.

 $^{^{1}\}mbox{Data}$ are rounded to no more than three significant digits; may not add to totals shown.