

# Mineral Industry Surveys

**For information, contact:**

Daniel M. Flanagan, Copper Commodity Specialist  
 National Minerals Information Center  
 U.S. Geological Survey  
 989 National Center  
 Reston, VA 20192  
 Telephone: (703) 648-7726, Fax: (703) 648-7757  
 Email: dflanagan@usgs.gov

Samir Hakim (Data)  
 Telephone: (703) 648-7955  
 Fax: (703) 648-7975  
 Email: shakim@usgs.gov

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

## COPPER IN OCTOBER 2017

In October 2017, domestic mine production of recoverable copper was 103,000 metric tons (t). The average daily mine production was 3,310 t, essentially unchanged from that in September and a decrease of 18% compared with that in October 2016. Year-to-date recoverable mine production through October 2017 was 1.06 million metric tons, a decline of 12% relative to the same period in 2016 (fig. 1, table 2).

Total U.S. refinery production in October 2017 was 82,400 t; electrolytic and electrowon production data are in table 4. Average daily total refinery production was 2,660 t, a decrease of 17% compared with that in September and 22% less than that in October 2016. Year-to-date refinery production through October 2017 was 927,000 t, a decline of 10% relative to the same period in 2016 (fig. 1, table 4).

Smelter production in October 2017 was 29,300 t. The average daily smelter production was 944 t, 42% less than that in September and a decrease of 44% from the daily average in October 2016. Year-to-date smelter production through October 2017 was 418,000 t, a decline of 10% compared with the same period in the prior year (table 3).

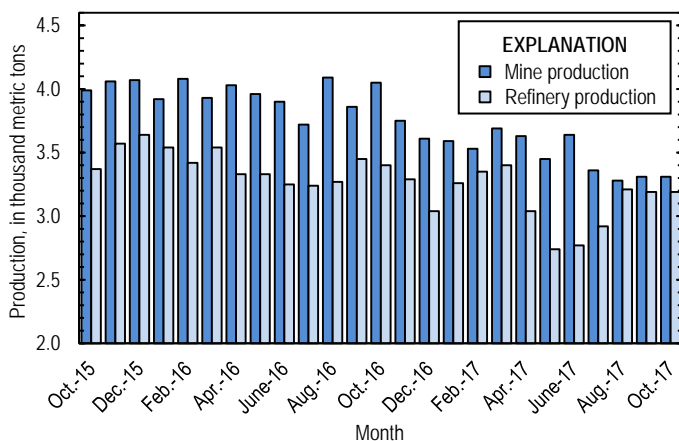


Figure 1. Average daily U.S. copper mine (recoverable) and refinery production from October 2015 through October 2017. Source: U.S. Geological Survey.

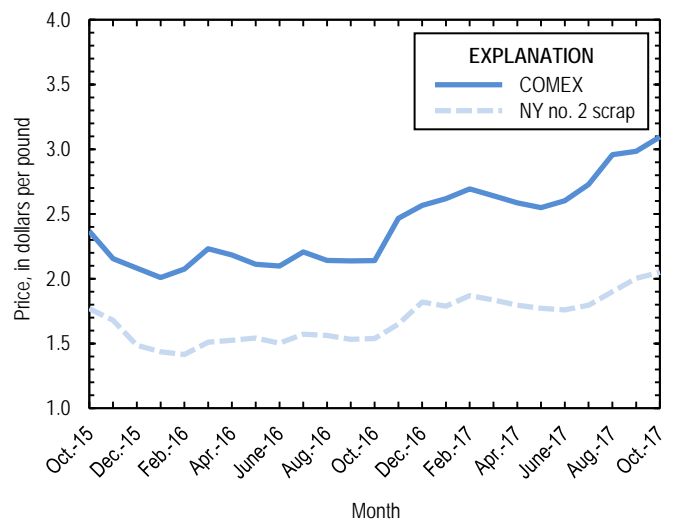


Figure 2. Monthly average COMEX copper price and New York no. 2 copper scrap price from October 2015 through October 2017. Sources: American Metal Market, Platts Metals Week.

### Prices

The average October 2017 COMEX spot copper price was \$3.10 per pound, an increase of 4% from \$2.98 per pound in September and 45% greater than \$2.14 per pound in October 2016 (fig. 2, table 11). The average price of New York dealers' number 2 scrap in October 2017 was \$2.05 per pound, up slightly from \$2.00 in September and 33% higher than the average price in October 2016 (table 12).

### Stocks

Refined copper stocks in the United States totaled 273,000 t at the end of October 2017, an increase of 5% from those in September and 42% more than those in October 2016. Domestic stocks rose for the fifth consecutive month, consistent with reports of weak U.S. demand (Barker, 2017b). COMEX stocks rose by 5%, stocks at wire-rod mills increased by 14%, and

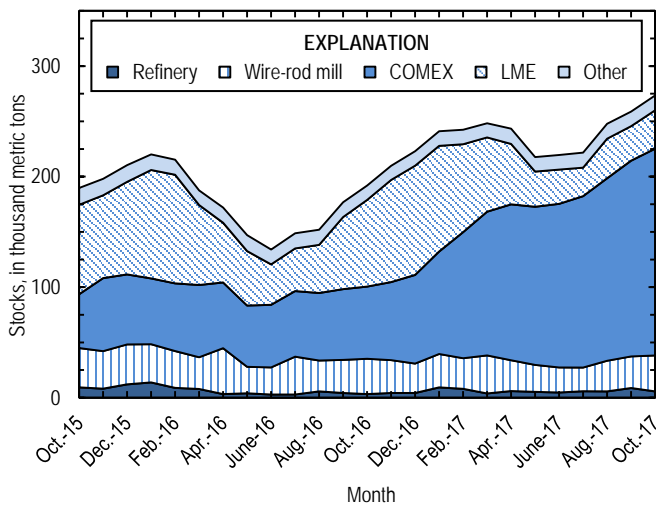


Figure 3. Monthly domestic refined copper stocks, by type, from October 2015 through October 2017. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

London Metal Exchange Ltd. stocks in U.S. warehouses were 11% higher compared with those at the end of September (fig. 3, table 10).

### Industry News

Rio Tinto Kennecott (South Jordan, UT) halted operations at its smelter near Magna, UT, on October 8 following a fatal accident. The company declared force majeure on shipments of refined copper on October 13. Production will remain suspended indefinitely pending the results of an investigation into the cause of the accident (Barker, 2017a).

On October 25, Excelsior Mining Corp. (Canada) announced that the U.S. Environmental Protection Agency granted a draft operating permit for the Gunnison copper project in southeastern Arizona. Issuance of the finalized permit, the last of three permits required for production to commence, was subject to a 30-day public comment period. Excelsior planned to initiate copper production at the site in 2018 (Excelsior Mining Corp., 2017a, b).

At the end of August, Freeport-McMoRan Inc. (Phoenix, AZ) reached a tentative agreement with the Government of Indonesia to construct a copper smelter in the country and divest 51% of its ownership of the Grasberg Mine to local entities (Freeport-McMoRan Inc., 2017). In October, a mining ministry official announced that an export ban on copper concentrates will not be imposed while the terms of the divestment are negotiated (CRU International Ltd., 2017, p. 12). The company's export license had been set to expire on October 10.

### References Cited

- Barker, Dalton, 2017a, Kennecott declares force majeure after fatality: American Metal Market, October 17. (Accessed October 27, 2017, via <http://www.amm.com/>)
- Barker, Dalton, 2017b, Kennecott woes should alleviate cathode oversupply: American Metal Market, October 25. (Accessed October 27, 2017, via <http://www.amm.com/>)
- CRU International Ltd., 2017, CRU copper monitor: London, United Kingdom, CRU International Ltd., October 26, 21 p. (Accessed November 3, 2017, via <http://www.crugroup.com/>)
- Excelsior Mining Corp., 2017a, Arizona's copper solution company: Vancouver, British Columbia, Canada, Excelsior Mining Corp. corporate presentation, December. (Accessed January 5, 2018, at [http://www.excelsiormining.com/images/Presentations/2017/December\\_12\\_2017.pdf](http://www.excelsiormining.com/images/Presentations/2017/December_12_2017.pdf))
- Excelsior Mining Corp., 2017b, Excelsior Mining's Gunnison copper project receives draft federal EPA permit: Vancouver, British Columbia, Canada, Excelsior Mining Corp. news release, October 25. (Accessed October 27, 2017, at <http://www.excelsiormining.com/index.php/news/news-2017/529-excelsior-mining-s-gunnison-copper-project-receives-draft-federal-epa-permit>)
- Freeport-McMoRan Inc., 2017, Freeport-McMoRan announces framework for agreement with Indonesian Government regarding long-term operating rights for PT Freeport Indonesia: Phoenix, AZ, Freeport-McMoRan Inc. press release, October 29. (Accessed December 6, 2017, at <https://investors.fcx.com/investors/news-releases/news-release-details/2017/Freeport-McMoRan-Announces-Framework-for-Agreement-with-Indonesian-Government-Regarding-Long-Term-Operating-Rights-for-PT-Freeport-Indonesia/default.aspx>)

List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <http://minerals.usgs.gov/minerals/>.

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

(Metric tons of copper content, unless otherwise specified)

	Source table <sup>2</sup>	2016 <sup>P</sup>	2017			
			August	September	October	January– October
<b>Production:</b>						
<b>Primary:</b>						
Mine, recoverable	(2)	1,430,000	102,000	99,200 <sup>r</sup>	103,000	1,060,000
Smelter, total	(3)	563,000	47,200	49,000	29,300	418,000
<b>Refinery:</b>						
Electrolytic, domestic and foreign	(4)	561,000	49,200	45,700	32,500	430,000
Electrowon	(4)	615,000	46,900	46,700	46,600	463,000
Total	(4)	1,180,000	96,100	92,400	79,100	894,000
<b>Secondary recoverable copper:<sup>3</sup></b>						
Refineries	(5)	46,300	3,340	3,310	3,280	33,600
Ingot makers <sup>4</sup>	(5)	73,100	6,090	6,090	6,090	60,900
Brass and wire-rod mills	(5)	621,000	55,500	52,000	55,600	542,000
Foundries, etc. <sup>4</sup>	(5)	47,200	3,940	3,940	3,940	39,400
<b>Consumption:</b>						
Apparent	(8)	1,890,000	131,000	172,000	142,000	1,580,000
Refined (reported)	(7)	1,810,000	140,000	149,000	149,000	1,500,000
Purchased copper-base scrap (gross weight)	(9)	917,000	83,000	79,600	83,200	817,000
<b>Stocks at end of period:</b>						
Total refined	(10)	223,000	248,000	259,000	273,000	273,000
Blister, etc.	(10)	14,400	7,350	12,100	13,600	13,600
Prices, U.S. producers cathode (cents per pound) <sup>5</sup>	(11)	224.873	300.928	303.468	314.747	279.517
<b>Imports:<sup>6</sup></b>						
Ore and concentrate	(13)	67	--	19	--	10,700
Refined	(13)	708,000	55,200	86,800	76,500	689,000
<b>Exports:<sup>6</sup></b>						
Ore and concentrate	(14)	331,000	20,400	18,500	20,000	195,000
Refined	(14)	134,000	6,680	7,190	5,210	85,000

<sup>P</sup>Preliminary. <sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>Numbers in parentheses refer to the tables where these data are located.

<sup>3</sup>Copper recovered from copper-base scrap only.

<sup>4</sup>Estimated based on the monthly average of 2015 annual data.

<sup>5</sup>Source: Platts Metals Week.

<sup>6</sup>Source: U.S. Census Bureau.

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

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others <sup>2</sup>	Total	Electrowon	Concentrates <sup>3</sup>	Total
2016: <sup>P</sup>						
January–September	736,000	344,000	1,080,000	465,000	641,000	1,110,000
October	81,800	43,700	125,000	53,300	74,900	128,000
November	74,200	38,200	112,000	48,700	66,100	115,000
December	76,600	35,300	112,000	47,900	66,600	115,000
January–December	969,000	461,000	1,430,000	615,000	848,000	1,460,000
2017:						
January	71,000	40,200	111,000	46,800	66,900	114,000
February	64,200	34,500	98,700	41,600	59,400	101,000
March	77,500	36,800	114,000	49,000	67,900	117,000
April	72,500	36,500	109,000	45,600	66,000	112,000
May	75,100	31,900	107,000	48,600	60,900	109,000
June	71,900	37,100	109,000	46,600	64,700	111,000
July	73,500	30,600	104,000	44,900	61,600	107,000
August	71,200	30,500 <sup>r</sup>	102,000	46,900	57,000 <sup>r</sup>	104,000
September	75,000 <sup>r</sup>	24,200 <sup>r</sup>	99,200 <sup>r</sup>	46,700	55,000 <sup>r</sup>	102,000 <sup>r</sup>
October	70,500	32,200	103,000	46,600	58,500	105,000
January–October	722,000	335,000	1,060,000	463,000	618,000	1,080,000

<sup>P</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Includes production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

<sup>3</sup>Includes copper content of precipitates and other metal concentrates.

TABLE 3  
COPPER PRODUCED AT SMELTERS IN  
THE UNITED STATES<sup>1,2</sup>

(Metric tons, copper content)

Period	Anode production
2016: <sup>P</sup>	
January–September	413,000
October	51,900
November	43,300
December	55,000
January–December	563,000
2017:	
January	48,900
February	47,800
March	52,200
April	40,700
May	20,100
June	37,100
July	45,800
August	47,200
September	49,000
October	29,300
January–October	418,000

<sup>P</sup>Preliminary.

<sup>1</sup>Includes blister and copper anode from primary or secondary sources.

<sup>2</sup>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<sup>1</sup>

(Metric tons)

Period	Primary materials			Scrap	Total refined
	Electrolytically refined <sup>2</sup>	Electrowon	Total		
2016: <sup>P</sup>					
January–September	423,000	465,000	888,000	36,400	924,000
October	48,800	53,300	102,000	3,410	106,000
November	46,600	48,700	95,300	3,220	98,600
December	42,900	47,900	90,800	3,330	94,100
January–December	561,000	615,000	1,180,000	46,300	1,220,000
2017:					
January	51,100	46,800	97,900	3,240	101,000
February	48,200	41,600	89,800	4,090	93,900
March	53,200	49,000	102,000	3,240	105,000
April	42,300	45,600	87,800	3,230	91,000
May	32,800	48,600	81,400	3,390	84,800
June	33,100	46,600	79,800	3,280	83,000
July	42,400	44,900	87,300	3,220	90,600
August	49,200	46,900	96,100	3,340	99,400
September	45,700	46,700	92,400	3,310	95,700
October	32,500	46,600	79,100	3,280	82,400
January–October	430,000	463,000	894,000	33,600	927,000

<sup>P</sup>Preliminary.

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

<sup>2</sup>From domestic and foreign source materials.

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

(Metric tons, copper content)

Period	Refineries <sup>2</sup>		Ingot makers <sup>3</sup>		Brass and wire-rod mills		Foundries, etc. <sup>3</sup>		Total <sup>4</sup>
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2016: <sup>P</sup>									
January–September	14,900	21,500	11,600	43,200	435,000	26,300	27,300	8,080	588,000
October	1,680	1,740	1,290	4,800	51,800	3,020	3,040	898	68,300
November	1,680	1,540	1,290	4,800	49,900	3,060	3,040	898	66,200
December	1,680	1,650	1,290	4,800	49,100	2,860	3,040	898	65,300
January–December	19,900	26,400	15,400	57,600	586,000	35,200	36,500	10,800	788,000
2017:									
January	1,680	1,560	1,290	4,800	49,500	3,360	3,040	898	66,100
February	1,680	2,420	1,290	4,800	50,100	2,940	3,040	898	67,100
March	1,680	1,560	1,290	4,800	52,000	3,110	3,040	898	68,400
April	1,680	1,550	1,290	4,800	51,300	3,110	3,040	898	67,600
May	1,680	1,710	1,290	4,800	52,000	3,140	3,040	898	68,600
June	1,680	1,600	1,290	4,800	51,300	3,070	3,040	898	67,700
July	1,680	1,540	1,290	4,800	50,700	3,010	3,040	898	67,000
August	1,680	1,660	1,290	4,800	52,100	3,360	3,040	898	68,800
September	1,680	1,630	1,290	4,800	49,200	2,870	3,040	898	65,400
October	1,680	1,600	1,290	4,800	52,200	3,350	3,040	898	68,900
January–October	16,800	16,800	12,900	48,000	510,000	31,300	30,400	8,980	676,000

<sup>P</sup>Preliminary.

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

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

<sup>3</sup>Monthly data estimated based on the monthly average of 2015 annual data.

<sup>4</sup>Does not include an estimate, based on reported 2015 annual data, of 3,050 tons per month from new scrap and 2,510 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 SEMIFABRICATES<sup>1</sup>

(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
2016: <sup>p</sup>						
January–September	660,000	1,000,000	660,000	1,000,000	28,700	21,000
October	74,800	115,000	75,100	111,000	28,500	24,900
November	72,700	112,000	72,800	109,000	28,300	28,200
December	72,300	94,300	72,100	97,700	28,500	24,800
January–December	880,000	1,320,000	880,000	1,320,000	28,500	24,800
2017:						
January	73,500	114,000	72,900	117,000	29,100	22,200
February	72,800	105,000	73,100	98,000	28,900	29,000
March	74,200	117,000	74,400	120,000	28,600	25,300
April	72,200	112,000	72,800	104,000	28,000	33,000
May	74,700	112,000	74,500	117,000	28,300	28,500
June	73,300	115,000	73,000	117,000	28,600	26,400
July	73,000	97,200	73,200	97,400	28,400	26,700
August	75,000	111,000	74,200	112,000	29,300	25,800
September	74,000	108,000	73,600	103,000	29,700	30,300
October	74,100	107,000	74,100	109,000	29,700	28,500
January–October	737,000	1,100,000	736,000	1,090,000	29,700	28,500

<sup>p</sup>Preliminary.

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

TABLE 7  
CONSUMPTION OF REFINED COPPER<sup>1</sup>

(Metric tons)

Period	Brass mills	Wire-rod mills	Other plants <sup>2</sup>	Total
2016: <sup>p</sup>				
January–September	317,000	996,000	52,300	1,360,000
October	35,400	116,000	5,820	157,000
November	34,400	116,000	5,820	156,000
December	33,800	93,200	5,820	133,000
January–December	421,000	1,320,000	69,800	1,810,000
2017:				
January	34,600	113,000	5,820	154,000
February	34,800	114,000	5,820	154,000
March	35,300	116,000	5,820	157,000
April	34,200	112,000	5,820	152,000
May	35,300	113,000	5,820	154,000
June	34,700	114,000	5,820	155,000
July	35,000	96,300	5,820	137,000
August	35,300	98,600	5,820	140,000
September	35,200	108,000	5,820	149,000
October	35,400	107,000	5,820	149,000
January–October	350,000	1,090,000	58,200	1,500,000

<sup>p</sup>Preliminary.

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

<sup>2</sup>Monthly consumption data by ingot makers, chemical plants, foundries, and miscellaneous manufacturers are estimated based on the monthly average of 2015 annual data.

TABLE 8  
U.S. APPARENT CONSUMPTION OF COPPER<sup>1</sup>

(Metric tons)

Period	Refined copper production	Copper in old scrap <sup>2</sup>	Refined general imports <sup>3</sup>	Refined exports <sup>3</sup>	Stock change during period	Apparent consumption
2016: <sup>P</sup>						
January–September	888,000	122,000	508,000	105,000	-33,600	1,450,000
October	102,000	13,000	67,600	7,750	15,100	160,000
November	95,300	12,800	65,900	13,100	17,900	143,000
December	90,800	12,700	59,400	8,040	13,200	142,000
January–December	1,180,000	160,000	701,000	134,000	12,600	1,890,000
2017:						
January	97,900	13,100	72,400	12,300	18,000	153,000
February	89,800	13,600	53,500	9,100	1,420	146,000
March	102,000	12,900	73,800	9,760	5,800	173,000
April	87,800	12,900	51,400	12,200	-5,100	145,000
May	81,400	13,100	63,200	9,230	-25,200	174,000
June	79,800	12,900	79,500	6,140	1,300	165,000
July	87,300	12,800	91,800	7,140	2,900	182,000
August	96,100	13,200	54,300	6,680	25,600	131,000
September	92,400	12,700	85,400	7,190	11,400	172,000
October	79,100	13,200	69,600	5,210	14,200	142,000
January–October	894,000	130,000	695,000	85,000	50,300	1,580,000

<sup>P</sup>Preliminary.

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

<sup>2</sup>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 2015 annual data.

<sup>3</sup>Source: U.S. Census Bureau.

TABLE 9  
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP<sup>1</sup>

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers <sup>2</sup>		Brass and wire-rod mills <sup>3</sup>		Foundries, etc. <sup>2</sup>		Total scrap used
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2016: <sup>P</sup>									
January–September	15,300	17,700	26,000	49,100	507,000	27,000	32,900	8,930	684,000
October	1,730	1,590	2,890	5,460	59,800	3,120	3,660	992	79,200
November	1,730	1,590	2,890	5,460	58,000	3,250	3,660	992	77,500
December	1,730	1,590	2,890	5,460	57,100	2,990	3,660	992	76,400
January–December	20,500	22,400	34,700	65,500	681,000	36,400	43,900	11,900	917,000
2017:									
January	1,820	4,630	2,890	5,460	57,500	3,490	3,660	992	80,400
February	1,820	4,630	2,890	5,460	58,000	3,040	3,660	992	80,500
March	1,820	4,630	2,890	5,460	60,100	3,240	3,660	992	82,700
April	1,820	4,630	2,890	5,460	59,300	3,190	3,660	992	81,900
May	1,820	4,630	2,890	5,460	60,100	3,250	3,660	992	82,800
June	1,820	4,690	2,890	5,460	59,300	3,180	3,660	992	82,000
July	1,820	4,630	2,890	5,460	58,700	3,070	3,660	992	81,200
August	1,820	4,630	2,890	5,460	60,100	3,450	3,660	992	83,000
September	1,820	4,730	2,890	5,460	57,100	2,920	3,660	992	79,600
October	1,820	4,700	2,890	5,460	60,200	3,460	3,660	992	83,200
January–October	18,200	46,500	28,900	54,600	590,000	32,300	36,600	9,920	817,000

<sup>P</sup>Preliminary.

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

<sup>2</sup>Monthly data estimated based on the monthly average of 2015 annual data.

<sup>3</sup>Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10  
COPPER STOCKS AT END OF PERIOD<sup>1</sup>

(Metric tons)

Period	Crude copper <sup>2</sup>	Refined copper					Total refined	
		Refineries <sup>3</sup>	Wire-rod mills <sup>3</sup>	Brass mills <sup>3</sup>	Other <sup>4</sup>	Comex		LME <sup>5</sup>
2016: <sup>P</sup>								
October	14,700	3,230	32,000	7,270	5,730	65,300	78,400	192,000
November	13,800	4,290	29,700	7,070	5,730	70,600	92,400	210,000
December	14,400	4,190	26,700	7,380	5,730	80,100	98,900	223,000
2017:								
January	11,700	9,250	30,300	7,430	5,730	92,600	95,700	241,000
February	13,200	8,010	27,700	7,330	5,730	114,000	79,600	242,000
March	13,500	3,860	34,400	7,050	5,730	130,000	67,200	248,000
April	26,100	5,980	27,900	8,030	5,730	141,000	54,700	243,000
May	11,000	5,280	24,400	7,410	5,730	143,000	31,900	218,000
June	11,000	4,670	22,700	7,430	5,730	148,000	31,000	219,000
July	11,000	5,810	21,500	7,920	5,730	155,000	25,800	222,000
August	7,350	5,610	27,800	7,740	5,730	165,000	35,900	248,000
September	12,100	8,740	28,600	7,440	5,730	177,000	31,300	259,000
October	13,600	5,620	32,600	7,650	5,730	187,000	34,800	273,000

<sup>P</sup>Preliminary.

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

<sup>2</sup>Copper content of blister and anode.

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

<sup>4</sup>Monthly estimates based on 2015 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

<sup>5</sup>London 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 <sup>1</sup>	Comex first position <sup>2</sup>	LME cash price Grade A
2016:			
October	218.885	214.010	214.629
November	251.388	246.638	246.878
December	261.183	256.683	256.997
January–December	224.873	219.727	220.571
2017:			
January	266.363	261.863	260.225
February	274.051	269.426	269.484
March	269.122	264.122	264.040
April	263.626	258.626	258.428
May	259.902	254.902	253.608
June	265.143	260.193	258.506
July	277.821	272.883	271.162
August	300.928	295.878	293.822
September	303.468	298.405	298.585
October	314.747	309.559	308.299
January–October	279.517	274.586	273.616

<sup>1</sup>Sum of "Comex high grade first position" and "NY dealer premium cathode."

<sup>2</sup>Listed 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
<b>2016:</b>				
October	212.71	190.05	153.88	131.95
November	241.32	218.05	165.00	137.50
December	248.38	224.48	181.98	146.00
January–December	218.01	197.52	155.05	132.17
<b>2017:</b>				
January	254.78	228.38	178.80	144.65
February	261.50	234.00	186.97	148.00
March	256.70	228.57	183.67	146.30
April	251.10	225.95	179.50	145.00
May	249.41	225.32	177.23	144.36
June	255.59	232.27	175.95	144.00
July	267.82	243.18	179.50	146.00
August	285.74	260.67	190.07	151.17
September	286.25	261.35	200.30	154.45
October	297.34	270.18	204.95	156.18
January–October	266.62	240.99	185.69	148.01

Source: American Metal Market.

TABLE 13  
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS<sup>1</sup>

(Metric tons, copper content)

Country or locality	Ore and concentrate			Matte, ash, and precipitates			Blister and anodes			Refined		
	2017			2017			2017			2017		
	2016	October	January–October	2016	October	January–October	2016	October	January–October	2016	October	January–October
Belgium	--	--	--	27	32	57	--	--	--	--	--	(2)
Canada	33	--	21	355	52	257	2	--	--	193,000	19,600	170,000
Chile	--	--	--	--	--	--	--	--	--	354,000	45,200	419,000
China	--	--	--	--	7	7	(2)	--	--	76	3	44
Congo (Kinshasa)	--	--	--	--	--	--	--	--	--	21,100	229	8,250
Finland	--	--	--	--	--	--	175	16	279	110	1	4
Germany	--	--	--	--	7	7	(2)	--	--	1,830	343	1,980
India	3	--	--	--	--	--	--	--	--	1,210	(2)	224
Japan	--	--	--	109	--	76	3	(2)	1	4,090	411	3,850
Mexico	3	--	10,600	41	3	25	--	--	--	102,000	5,730	65,300
Netherlands	--	--	--	69	6	126	(2)	--	3	(2)	--	3
Peru	--	--	--	--	--	--	--	--	--	24,800	4,000	13,700
Other	27	--	9	205	--	385	93	18	122	4,100	951	6,380
Total	67	--	10,700	806	106	939	274	34	405	708,000	76,500	689,000

-- Zero.

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

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 14  
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS<sup>1</sup>

(Metric tons, copper content)

Country or locality	Ore and concentrate			Matte, ash, and precipitates			Blister and anodes			Refined		
	2017			2017			2017			2017		
	2016	October	January– October	2016	October	January– October	2016	October	January– October	2016	October	January– October
Belgium	(2)	--	--	5,700	162	4,570	679	121	407	--	--	(2)
Canada	25,800	1,180	20,100	12,300	1,540	13,200	2,050	286	2,650	32,400	756	17,500
China	57,100	3,870	53,800	52	54	219	485	10	209	32,600	(2)	10,000
Germany	--	--	--	204	--	527	517	66	195	21	--	14
Hong Kong	--	--	--	36	--	--	1,070	59	956	--	--	1
Italy	--	--	--	--	--	35	377	24	224	240	2	13
Japan	20,400	--	1,500	180	--	182	453	38	80	157	2	16
Korea, Republic of	138	--	99	352	54	291	1,420	96	1,480	85	--	2,450
Mexico	226,000	15,000	119,000	--	--	--	99	--	93	67,700	4,430	54,300
Singapore	--	--	--	--	--	--	42	2	40	13	--	5
Spain	--	--	--	40	--	116	266	--	101	4	1	1
Switzerland	--	--	--	--	--	--	24	1	24	5	--	3
Taiwan	--	--	--	359	18	72	60	20	102	62	9	19
Other	853	6	119	883	133	503	1,970	163	1,530	518	4	643
Total	331,000	20,000	195,000	20,100	1,970	19,700	9,510	886	8,090	134,000	5,210	85,000

-- Zero.

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

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 15  
U.S. COPPER SCRAP IMPORTS<sup>1</sup>

(Metric tons, gross weight)

Country or locality	Unalloyed			Alloyed		
	2016	2017		2016	2017	
		October	January– October		October	January– October
Canada	13,300	2,050	16,300	52,200	7,720	69,700
Chile	41	--	57	211	--	269
Colombia	259	170	486	1,180	107	1,130
Costa Rica	344	62	498	1,030	103	860
Guatemala	--	2	31	326	29	352
Honduras	102	9	52	357	21	300
Mexico	12,900	1,010	8,640	34,400	3,140	29,600
Nicaragua	--	20	20	264	20	226
Other	2,170	299	3,430	6,180	596	7,310
Total	29,100	3,610	29,500	96,100	11,700	110,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 16  
U.S. COPPER SCRAP EXPORTS<sup>1</sup>

(Metric tons, gross weight)

Country or locality	Unalloyed							Alloyed				
	2016	2017						2016	2017			
		No. 1		No. 2		Other			Segregated		Unsegregated	
		October	January– October	October	January– October	October	January– October		October	January– October	October	January– October
Belgium	9,030	316	3,280	276	1,850	123	1,570	8,390	60	1,390	717	5,570
Canada	23,400	--	--	--	--	3,840	37,700	51,200	--	--	6,270	44,900
China	284,000	11,300	104,000	12,400	81,600	9,120	102,000	376,000	7,500	86,900	18,100	205,000
Germany	24,900	1,260	13,000	258	3,190	121	1,050	8,130	177	1,160	782	7,070
Hong Kong	6,550	204	1,810	82	1,010	187	3,180	17,100	1,330	8,410	941	18,500
India	1,670	420	1,750	61	430	85	1,650	23,000	727	14,000	751	2,590
Japan	6,460	180	1,490	653	4,900	88	3,370	8,730	95	610	487	7,390
Korea, Republic of	17,000	1,030	8,590	128	707	556	4,180	10,300	497	5,770	827	4,830
Mexico	1,660	399	2,710	--	--	3	115	950	2	41	19	409
Netherlands	12,100	166	2,030	336	608	368	3,340	1,170	19	57	283	800
Spain	182	82	377	135	561	--	20	7,770	156	680	446	3,950
Taiwan	8,290	270	3,390	83	1,020	25	433	1,740	72	729	361	1,060
Thailand	121	18	97	--	--	--	4	1,050	19	157	--	58
Other	16,100	318	6,850	282	1,550	254	1,640	16,900	196	2,090	1,470	12,800
Total	411,000	15,900	149,000	14,700	97,400	14,800	160,000	532,000	10,800	122,000	31,400	315,000

-- Zero.

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

Source: U.S. Census Bureau.