

Mineral Industry Surveys

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COPPER IN JANUARY, FEBRUARY, AND MARCH 2010

Average daily mine production of copper in the first quarter of 2010 was down by about 8% from that in the first quarter of 2009 and 3% from that in the fourth quarter of 2009, according to data compiled by the U.S. Geological Survey. Measures to increase mine production, initiated during the fourth quarter of 2009, had yet to reverse the downward trend in production since yearend 2008. Smelter production in the first quarter of 2010, however, rose by about 10% compared with that of the first quarter of 2009, when a maintenance shutdown had reduced output. Refined copper production fell by about 5% during the same comparative periods; electrolytic, electrowon, and secondary production all declined. Consumption of refined copper rose by about 3% compared with that in the first quarter of 2009, principally owing to a 22% year-on-year increase in wire-rod mill consumption in March.

Freeport-McMoRan Copper & Gold Inc. (FCX) (Phoenix, AZ) reported that production from its U.S. operations totaled 128,000 metric tons (t) in the first quarter of 2010 and was down by about 9% from production during the first quarter of 2009. Net cash operating costs fell to \$1.13 per pound of copper from \$1.22 per pound of copper during the same comparative periods. In late 2008, FCX had revised operating plans at most of its U.S. operations that reduced operating costs at the expense of production. In the fourth quarter of 2009, however, FCX revised its production cutbacks and initiated plans to restart production at its Miami Mine in Arizona (Freeport-McMoRan Copper & Gold Inc., 2010, p. 4).

Rio Tinto plc (London, United Kingdom) reported that its Bingham Canyon Mine in Utah produced 61,300 t of copper in the first quarter of 2010, down by 18% and 8%, respectively, from production in the first and fourth quarters of 2009. Although mill throughput increased by 8% from that in the first quarter of 2009, the average mill-head grade fell to 0.52% copper from 0.69% copper in the first quarter of 2009 and 0.57% in the fourth quarter of 2009. In the first quarter of 2010, mill circuits were optimized for molybdenum and gold recovery, production of which rose by 60% and 25%,

respectively, from that in the first quarter of 2009 (Rio Tinto plc, 2010, p. 3, 22).

On December 9, 2009, Grupo México, S.A.B. de C.V. (Mexico City, Mexico) announced that the Chapter 11 restructuring of ASARCO LLC had been completed and that full control of Asarco had been returned to Grupo México. A combined \$3.63 billion payment was made to Asarco's creditors (\$720 million Grupo México contribution, \$1.5 billion secured financing, and \$1.41 billion available cash from Asarco) and a \$280 million promissory note delivered to asbestos creditors. Under terms of the restructuring, these payments rendered Asarco free of environmental contingencies and liabilities from past Asarco operations. ASARCO Incorporated, which operated the Mission, Ray, and Silver Bell Mines in Arizona, the Hayden, AZ, smelter, and the Amarillo, TX, refinery, had filed for bankruptcy protection in 2005 and had been operating as ASARCO LLC. In the first quarter of 2010, Grupo México reported that production from Asarco's mines was 59,600 t, an increase of 8.5% from production in the first quarter of 2009, principally owing to higher ore grades at the Mission Mine and increased recoveries at the Ray Mine. Production costs for Asarco's mines fell to \$1.16 per pound of copper in the first quarter of 2010 from \$1.48 in the first quarter of 2009 owing to greater productivity and higher byproduct prices (Grupo México, S.A.B. de C.V., 2009; 2010).

References Cited

Freeport-McMoRan Copper & Gold Inc., 2010, Freeport-McMoRan Copper & Gold Inc. reports first-quarter 2010 results: Phoenix, AZ, Freeport-McMoRan Copper & Gold Inc. news release, April 21, 27 p.

Grupo México, S.A.B. de C.V., 2009, Grupo México successfully concludes the restructuring of Asarco: Mexico City, Mexico, Grupo México, S.A.B. de C.V. press release, December 9, 1 p.

Grupo México, S.A.B. de C.V., 2010, First quarter 2010 results: Mexico City, Mexico, Grupo México, S.A.B. de C.V. press release, April 30, 14 p. (Accessed July 21, 2010, at http://www.gmexico.com/pdf/quarterly-reports/CEO-Report-1Q10.pdf.)

Rio Tinto plc, 2010, First quarter 2010 operations review: London, United Kingdom, Rio Tinto plc media release, April 15, 26 p.

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

(Metric tons, unless otherwise specified)

| | | | | 20 | 10 | |
|--|--------------------|----------------------|---------|----------|---------|----------|
| | Source | | | | | January- |
| | table ² | 2009 ^p | January | February | March | March |
| Production: | | | | | | |
| Primary: | | | | | | |
| Mine, recoverable | (2) | 1,180,000 | 99,500 | 82,400 | 93,500 | 275,000 |
| Refinery: | | | | | | |
| Electrolytic, domestic and foreign | (4) | 636,000 | 51,000 | 49,100 | 58,700 | 159,000 |
| Electrowon | (4) | 476,000 | 40,900 | 36,400 | 36,900 | 114,000 |
| Total | (4) | 1,110,000 | 91,900 | 85,400 | 95,600 | 273,000 |
| Secondary recoverable copper: | | | | | | |
| Refineries | (5) | 46,400 | 2,920 | 3,170 | 2,830 | 8,920 |
| Ingot makers ³ | (5) | 91,100 ^r | 7,590 | 7,590 | 7,590 | 22,800 |
| Brass and wire-rod mills | (5) | 561,000 | 49,400 | 47,300 | 50,000 | 147,000 |
| Foundries, etc. ³ | (5) | 44,600 ^r | 3,700 | 3,700 | 3,700 | 11,100 |
| Smelter, total | (3) | 597,000 | 51,200 | 43,500 | 52,000 | 147,000 |
| Consumption: | | | | | | |
| Apparent | (8) | 1,600,000 | 137,000 | 124,000 | 158,000 | 419,000 |
| Refined (reported) | (7) | 1,650,000 | 141,000 | 143,000 | 154,000 | 438,000 |
| Purchased copper-base scrap | (9) | 939,000 ^r | 80,200 | 78,500 | 82,100 | 241,000 |
| Stocks at end of period: | | | | | | |
| Total refined | (10) | 433,000 | 466,000 | 486,000 | 466,000 | XX |
| Blister, etc. | (10) | 15,500 | 25,800 | 25,200 | 25,500 | XX |
| Prices, U.S. producer cathode (cents per pound) ⁴ | (11) | 241.243 | 339.592 | 317.744 | 345.367 | 334.234 |
| Imports: ⁵ | | | | | | |
| Ore and concentrate ⁶ | (13) | 137 | | | 1,080 | 1,080 |
| Refined | (13) | 664,000 | 60,300 | 61,300 | 46,200 | 168,000 |
| Exports: ⁵ | | | | | | |
| Ore and concentrate ⁶ | (14) | 151,000 | 9,370 | 10,400 | 12,200 | 32,000 |
| Refined | (14) | 80,800 | 6,200 | 13,900 | 13,600 | 33,800 |

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

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.

³Monthly data estimated based on 2008 monthly average.

⁴Source: Platts Metals Week.

⁵Source: U.S. Census Bureau.

 $^{^6}$ Copper content.

 $\label{eq:table 2} \textbf{MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES}^1$

(Metric tons)

| | Rec | overable coppe | er | | Contained copper | |
|------------------|----------------------|---------------------|-----------|----------------------|---------------------------|------------------------|
| Period | Arizona | Others ² | Total | Electrowon | Concentrates ³ | Total |
| 2009: | | | | | | |
| March | 57,800 | 49,100 | 107,000 | 38,900 | 69,900 | 109,000 |
| April | 53,700 | 36,200 | 89,900 | 35,600 | 56,400 | 92,100 |
| May | 58,700 | 45,600 | 104,000 | 38,200 | 68,200 | 106,000 |
| June | 59,000 | 43,200 | 102,000 | 39,400 | 64,700 | 104,000 |
| July | 62,700 | 37,000 | 99,700 | 42,800 ^r | 58,800 | 102,000 |
| August | 58,200 | 46,900 | 105,000 | 40,500 ^r | 66,600 | 107,000 |
| September | 56,500 | 34,100 | 90,700 | 36,600 ^r | 55,900 | 92,400 |
| October | 60,700 ^r | 37,000 | 97,700 | 39,000 ^r | 60,300 ^r | 99,400 ^r |
| November | 59,000 | 43,800 | 103,000 | 39,700 ^r | 64,700 ^r | 104,000 ^r |
| December | 62,000 ^r | 26,600 | 88,600 | 42,400 ^r | 47,800 ^r | 90,200 ¹ |
| January-December | 712,000 ^r | 470,000 | 1,180,000 | 476,000 ^r | 728,000 ^r | 1,200,000 ¹ |
| 2010: | | | | | | |
| January | 62,600 | 36,900 | 99,500 | 40,900 | 60,500 | 101,000 |
| February | 53,100 | 29,300 | 82,400 | 36,400 | 47,800 | 84,200 |
| March | 56,500 | 37,000 | 93,500 | 36,900 | 58,300 | 95,200 |
| January-March | 172,000 | 103,000 | 275,000 | 114,000 | 167,000 | 281,000 |

Revised.

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

(Metric tons, copper content)

| | Anode |
|------------------|------------|
| Period | production |
| 2009: | |
| March | 54,800 |
| April | 55,300 |
| May | 47,300 |
| June | 39,100 |
| July | 55,800 |
| August | 55,400 |
| September | 51,700 |
| October | 58,200 |
| November | 52,700 |
| December | 48,400 |
| January-December | 597,000 |
| 2010: | _ |
| January | 51,200 |
| February | 43,500 |
| March | 52,000 |
| January-March | 147,000 |

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

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

 $^{^2 \}mbox{Includes}$ production from Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.

³Includes copper content of precipitates and other metal concentrates.

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)

| | Pri | imary materials | | | |
|------------------|----------------------|----------------------|-----------|--------|-----------|
| | Electrolytically | | | | Total |
| Period | refined ² | Electrowon | Total | Scrap | refined |
| 2009: | | | | | |
| March | 52,600 | 38,900 | 91,500 | 4,390 | 95,900 |
| April | 53,700 | 35,600 | 89,300 | 4,420 | 93,700 |
| May | 49,600 | 38,200 | 87,800 | 4,030 | 91,800 |
| June | 46,700 | 39,400 | 86,100 | 4,200 | 90,300 |
| July | 47,500 | 42,800 ^r | 90,300 | 4,090 | 94,400 |
| August | 54,200 | 40,500 ^r | 94,700 | 2,900 | 97,600 |
| September | 54,700 | 36,600 ^r | 91,300 | 2,980 | 94,300 |
| October | 58,800 | 39,000 ^r | 97,800 | 2,960 | 101,000 |
| November | 55,300 | 39,700 ^r | 94,900 | 3,040 | 98,000 |
| December | 54,900 | 42,400 ^r | 97,300 | 3,210 | 101,000 |
| January-December | 636,000 | 476,000 ^r | 1,110,000 | 46,400 | 1,160,000 |
| 2010: | | | | | |
| January | 51,000 | 40,900 | 91,900 | 2,920 | 94,800 |
| February | 49,100 | 36,400 | 85,400 | 3,170 | 88,600 |
| March | 58,700 | 36,900 | 95,600 | 2,830 | 98,400 |
| January-March | 159,000 | 114,000 | 273,000 | 8,920 | 282,000 |

Revised.

 ${\it TABLE~5}$ 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 wi | re-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 |
| 2009: | | | | | | | | | |
| March | 1,970 | 2,420 | 1,270 ° | 6,330 ^r | 44,900 | 1,420 | 2,690 ° | 1,030 ° | 62,000 ^r |
| April | 1,770 | 2,650 | 1,270 ° | 6,330 ^r | 44,900 | 1,420 | 2,690 ° | 1,030 ° | 62,100 ^r |
| May | 1,860 | 2,170 | 1,270 ° | 6,330 ^r | 42,900 | 1,470 | 2,690 ° | 1,030 ° | 59,700 ^r |
| June | 1,810 | 2,390 | 1,270 ° | 6,330 ^r | 47,100 | 1,420 | 2,690 ° | 1,030 ° | 64,000 ^r |
| July | 1,940 | 2,160 | 1,270 ° | 6,330 ^r | 45,000 | 1,420 | 2,690 ° | 1,030 ° | 61,800 ^r |
| August | 1,420 | 1,480 | 1,270 ° | 6,330 ^r | 48,000 | 1,470 | 2,690 ° | 1,030 ° | 63,600 ^r |
| September | 1,490 | 1,490 | 1,270 ° | 6,330 ^r | 47,300 | 1,450 | 2,690 ° | 1,030 ° | 63,100 ^r |
| October | 1,470 | 1,490 | 1,270 ° | 6,330 ^r | 46,400 | 1,470 | 2,690 ^r | 1,030 ° | 62,100 ^r |
| November | 1,540 | 1,500 | 1,270 ° | 6,330 ^r | 44,400 | 1,450 | 2,690 ^r | 1,030 ° | 60,200 ^r |
| December | 1,670 | 1,540 | 1,270 ° | 6,330 ^r | 45,400 ^r | 1,450 | 2,690 ^r | 1,030 ° | 61,300 ^r |
| January-December | 20,800 | 25,600 | 15,200 ^r | 75,900 ^r | 545,000 ^r | 16,500 ^r | 32,200 ^r | 12,300 ^r | 743,000 ^r |
| 2010: | | | | | | | | | |
| January | 1,440 | 1,480 | 1,270 | 6,330 | 48,000 | 1,470 | 2,690 | 1,030 | 63,700 |
| February | 1,360 | 1,810 | 1,270 | 6,330 | 45,900 | 1,420 | 2,690 | 1,030 | 61,800 |
| March | 1,320 | 1,510 | 1,270 | 6,330 | 48,500 | 1,420 | 2,690 | 1,030 | 64,100 |
| January-March | 4,130 | 4,790 | 3,800 | 19,000 | 142,000 | 4,300 | 8,060 | 3,090 | 190,000 |

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

²From domestic and foreign source materials.

 $^{^{1}\}mathrm{Data}$ 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 2009 cumulative data estimated based on 2008 annual data.

⁴Does not include an estimate, based on reported 2008 data, of 3,140 tons per month from new scrap and 1,930 tons per month from old scrap, of copper recovered from scrap other than copper-base.

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

(Metric tons, gross weight)

| | Pro | duction | Shi | pments | Stocks, e | end of period |
|------------------|-------------|---------------------|-------------|----------------|-------------|----------------|
| Period | Brass mills | Wire-rod mills | Brass mills | Wire-rod mills | Brass mills | Wire-rod mills |
| 2009: | | | | | | |
| March | 80,000 | 90,800 | 81,800 | 97,500 | 32,900 | 23,000 |
| April | 78,700 | 101,000 | 79,900 | 99,700 | 31,700 | 24,600 |
| May | 77,900 | 99,500 | 77,500 | 92,800 | 32,100 | 31,300 |
| June | 82,800 | 97,100 | 83,600 | 93,500 | 31,300 | 34,800 |
| July | 79,300 | 83,200 | 79,000 | 95,300 | 31,600 | 22,700 |
| August | 83,400 | 103,000 | 83,200 | 106,000 | 32,200 | 20,500 |
| September | 84,300 | 99,200 | 83,400 | 95,700 | 33,100 | 24,100 |
| October | 81,400 | 95,600 | 82,000 | 95,900 | 32,500 | 23,800 |
| November | 78,700 | 78,200 | 78,300 | 81,300 | 32,900 | 20,700 |
| December | 76,900 | 78,200 ^r | 77,100 | 77,900 | 32,700 | 20,900 |
| January-December | 958,000 | 1,140,000 | 961,000 | 1,140,000 | XX | XX |
| 2010: | | | | | | |
| January | 81,100 | 101,000 | 81,200 | 97,800 | 32,600 | 23,800 |
| February | 82,100 | 101,000 | 83,500 | 98,800 | 31,200 | 25,900 |
| March | 81,900 | 112,000 | 82,900 | 113,000 | 30,100 | 24,800 |
| January-March | 245,000 | 313,000 | 248,000 | 309,000 | XX | XX |

XX Not applicable.

 ${\bf TABLE~7} \\ {\bf CONSUMPTION~OF~REFINED~COPPER}^1$

(Metric tons)

| | Brass | Wire-rod | Other | |
|-----------------------|---------|-----------|---------------------|------------------------|
| Period and item | mills | mills | plants ² | Total |
| 2009: | | | | |
| March | 37,200 | 90,100 | 4,170 ^r | 131,000 1 |
| April | 37,200 | 101,000 | 4,170 ^r | 142,000 ^r |
| May | 39,800 | 100,000 | 4,170 ^r | 144,000 ^r |
| June | 39,600 | 98,300 | 4,170 ^r | 142,000 ^r |
| July | 39,000 | 84,300 | 4,170 ^r | 127,000 ^r |
| August | 38,600 | 104,000 | 4,170 ^r | 146,000 ^r |
| September | 37,100 | 101,000 | 4,170 ^r | 143,000 ^r |
| October | 37,000 | 97,300 | 4,170 ^r | 138,000 ^r |
| November | 35,400 | 79,600 | 4,170 ^r | 119,000 ^r |
| December | 35,900 | 78,700 | 4,170 ^r | 119,000 ^r |
| January-December | 454,000 | 1,140,000 | 50,000 ^r | 1,650,000 ^r |
| 2010: | | | | |
| January | 38,100 | 99,100 | 4,170 | 141,000 |
| February | 39,600 | 98,900 | 4,170 | 143,000 |
| March: | | | | |
| Cathodes | 27,700 | 110,000 | 719 | 139,000 |
| Wire bars | | | (3) | (3) |
| Ingots and ingot bars | 1,240 | | 1,560 | 2,800 |
| Cakes and slabs | (3) | | (3) | (3) |
| Billets and other | 10,100 | | 1,890 | 12,000 |
| Total | 39,000 | 110,000 | 4,170 | 154,000 |
| January-March | 117,000 | 308,000 | 12,500 | 438,000 |

^rRevised. -- Zero.

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

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

²Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2008 annual data.

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

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

(Metric tons)

| Period | Refined copper production | Copper in old scrap ² | Refined general imports ³ | Refined exports ³ | Stock change during period | Apparent consumption |
|------------------|---------------------------|----------------------------------|--------------------------------------|------------------------------|-------------------------------|------------------------|
| 2009: | F | | • | | 8 F | P. |
| March | 91,500 | 14,400 | 79,500 | 3,770 | 50,300 | 131,000 |
| April | 89,300 | 14,700 | 53,900 | 6,510 | 266 | 151,000 |
| May | 87,800 | 14,200 | 42,700 | 21,400 | (24,400) | 148,000 |
| June | 86,100 | 14,400 | 33,800 | 19,200 | (28,400) | 144,000 |
| July | 90,300 ^r | 14,500 | 53,600 | 8,870 | 9,040 | 140,000 ^r |
| August | 94,700 ^r | 13,800 | 35,700 | 6,280 | 4,820 | 133,000 ^r |
| September | 91,300 ^r | 13,800 | 52,300 | 3,980 | 24,800 | 129,000 ^r |
| October | 97,800 ^r | 13,900 | 38,300 | 2,110 | 16,300 | 132,000 ^r |
| November | 94,900 ^r | 13,800 | 55,200 | 3,030 | 40,300 | 121,000 ^r |
| December | 97,300 ^r | 13,900 | 55,500 | 3,160 | 54,000 | 110,000 ^r |
| January-December | - 1,110,000 ^r | 172,000 | 645,000 | 80,800 | 246,000 | 1,600,000 ^r |
| 2010: | _ | | | | | |
| January | 91,900 | 12,200 | 71,300 | 6,200 | 32,500 | 137,000 |
| February | 85,400 | 12,500 | 60,400 | 13,900 | 20,100 | 124,000 |
| March | 95,600 | 12,200 | 44,700 | 13,600 | (19,500) | 158,000 |
| January-March | 273,000 | 36,800 | 176,000 | 33,800 | 33,000 | 419,000 |

rRevised.

 $\label{eq:table 9} \textbf{CONSUMPTION OF PURCHASED COPPER-BASE SCRAP}^1$

(Metric tons, gross weight)

| | Sme | lters | | | Brass | and | | | |
|------------------|-----------|-----------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|----------------------|
| | and ref | ineries | Ingot m | akers ² | wire-roo | l mills ³ | Foundrie | s, etc. ² | Total scrap |
| Period | New scrap | Old scrap | New scrap | Old scrap | New scrap | Old scrap | New scrap | Old scrap | used |
| 2009: | | | | | | | | | |
| March | 1,970 | 2,180 | 2,810 ° | 8,750 ° | 55,900 | 1,430 ° | 4,230 ° | 1,170 ° | 78,400 ^r |
| April | 2,380 | 2,140 | 2,810 ° | 8,750 ° | 55,700 | 1,430 ° | 4,230 ° | 1,170 ° | 78,600 ^r |
| May | 1,960 | 2,170 | 2,810 ° | 8,750 ° | 53,000 | 1,510 ^r | 4,230 ° | 1,170 ° | 75,600 ^r |
| June | 2,240 | 2,180 | 2,810 ° | 8,750 ° | 58,300 | 1,430 ° | 4,230 ° | 1,170 ° | 81,100 ° |
| July | 1,810 | 2,140 | 2,810 ° | 8,750 ° | 55,300 | 1,430 ° | 4,230 ° | 1,170 ° | 77,700 ^r |
| August | 1,600 | 1,550 | 2,810 ° | 8,750 ° | 59,100 | 1,510 ^r | 4,230 ° | 1,170 ° | 80,700 ° |
| September | 1,440 | 1,510 | 2,810 ° | 8,750 ° | 57,800 | 1,490 ° | 4,230 ° | 1,170 ° | 79,200 ^r |
| October | 1,520 | 1,530 | 2,810 ° | 8,750 ° | 57,100 | 1,520 ° | 4,230 ° | 1,170 ° | 78,600 ^r |
| November | 1,590 | 1,550 | 2,810 ° | 8,750 ^r | 54,800 | 1,480 ^r | 4,230 ^r | 1,170 ° | 76,300 ^r |
| December | 1,730 | 1,590 | 2,810 ° | 8,750 ^r | 55,300 ^r | 1,490 ^r | 4,230 ^r | 1,170 ° | 77,000 ^r |
| January-December | 24,300 | 22,900 | 33,700 ^r | 105,000 ^r | 671,000 | 16,900 ^r | 50,700 ^r | 14,000 ^r | 939,000 ^r |
| 2010: | _ | | | | | | | | |
| January | 1,490 | 1,530 | 2,810 | 8,750 | 58,800 | 1,520 | 4,230 | 1,170 | 80,200 |
| February | 1,760 | 1,510 | 2,810 | 8,750 | 56,800 | 1,430 | 4,230 | 1,170 | 78,500 |
| March | 1,420 | 1,500 | 2,810 | 8,750 | 60,800 | 1,430 | 4,230 | 1,170 | 82,100 |
| January-March | 4,670 | 4,530 | 8,420 | 26,200 | 176,000 | 4,370 | 12,700 | 3,500 | 241,000 |

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 2008 data.

³Source: U.S. Census Bureau.

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

²Monthly data estimated from 2008 annual data.

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

$\label{eq:table 10} \text{COPPER STOCKS AT END OF PERIOD}^1$

(Metric tons)

| Refined copper | | | | | | | |
|---------------------|--|--|---|---|--|---|--|
| Crude | | Wire-rod | | | | | Total |
| copper ² | Refineries ³ | $mills^3$ | Brass mills ³ | Other ⁴ | Comex ⁵ | LME^6 | refined |
| | | | | | | | |
| 21,300 | 14,300 | 25,100 | 8,580 | 3,230 ^r | 42,200 | 243,000 | 337,000 ^r |
| 25,200 | 11,100 | 15,900 | 9,760 | 3,230 ^r | 43,600 | 253,000 | 337,000 ^r |
| 22,500 | 14,600 | 18,400 | 7,860 | 3,230 ^r | 50,500 | 218,000 | 312,000 ^r |
| 23,800 | 11,600 | 18,700 | 9,460 | 3,230 ^r | 54,200 | 187,000 | 284,000 ^r |
| 26,100 | 10,700 | 19,500 | 8,600 | 3,230 ^r | 49,900 | 201,000 | 293,000 ^r |
| 32,500 | 9,260 | 16,700 | 7,630 | 3,230 ^r | 48,300 | 213,000 | 298,000 ^r |
| 27,100 | 11,500 | 25,300 | 9,520 | 3,230 ^r | 48,600 | 225,000 | 323,000 ^r |
| 28,900 | 18,300 | 18,600 | 9,220 | 3,230 ^r | 56,200 | 233,000 | 339,000 ^r |
| 28,200 | 19,200 | 15,200 | 8,030 | 3,230 ^r | 77,700 | 256,000 | 379,000 ^r |
| 15,500 | 23,700 | 25,300 | 7,610 | 3,230 ^r | 90,000 | 283,000 | 433,000 ^r |
| | | | | | | | |
| 25,800 | 18,800 | 27,000 | 6,890 | 3,230 | 94,000 | 316,000 | 466,000 |
| 25,200 | 20,600 | 26,200 | 6,720 | 3,230 | 93,700 | 335,000 | 486,000 |
| 25,500 | 14,100 | 19,400 | 6,540 | 3,230 | 91,700 | 331,000 | 466,000 |
| | copper ² 21,300 25,200 22,500 23,800 26,100 32,500 27,100 28,900 28,200 15,500 25,800 25,200 | copper ² Refineries ³ 21,300 14,300 25,200 11,100 22,500 14,600 23,800 11,600 26,100 10,700 32,500 9,260 27,100 11,500 28,900 18,300 28,200 19,200 15,500 23,700 | copper ² Refineries ³ mills ³ 21,300 14,300 25,100 25,200 11,100 15,900 22,500 14,600 18,400 23,800 11,600 18,700 26,100 10,700 19,500 32,500 9,260 16,700 27,100 11,500 25,300 28,900 18,300 18,600 28,200 19,200 15,200 15,500 23,700 25,300 25,800 18,800 27,000 25,200 20,600 26,200 | Crude copper² Refineries³ Wire-rod mills³ Brass mills³ 21,300 14,300 25,100 8,580 25,200 11,100 15,900 9,760 22,500 14,600 18,400 7,860 23,800 11,600 18,700 9,460 26,100 10,700 19,500 8,600 32,500 9,260 16,700 7,630 27,100 11,500 25,300 9,520 28,900 18,300 18,600 9,220 28,200 19,200 15,200 8,030 15,500 23,700 25,300 7,610 25,800 18,800 27,000 6,890 25,200 20,600 26,200 6,720 | Crude copper² Refineries³ Wire-rod mills³ Brass mills³ Other⁴ 21,300 14,300 25,100 8,580 3,230 ° 25,200 11,100 15,900 9,760 3,230 ° 22,500 14,600 18,400 7,860 3,230 ° 23,800 11,600 18,700 9,460 3,230 ° 26,100 10,700 19,500 8,600 3,230 ° 32,500 9,260 16,700 7,630 3,230 ° 27,100 11,500 25,300 9,520 3,230 ° 28,900 18,300 18,600 9,220 3,230 ° 28,200 19,200 15,200 8,030 3,230 ° 15,500 23,700 25,300 7,610 3,230 ° 25,800 18,800 27,000 6,890 3,230 25,200 20,600 26,200 6,720 3,230 | Crude copper² Wire-rod mills³ Brass mills³ Other⁴ Comex⁵ 21,300 14,300 25,100 8,580 3,230 r 42,200 25,200 11,100 15,900 9,760 3,230 r 43,600 22,500 14,600 18,400 7,860 3,230 r 50,500 23,800 11,600 18,700 9,460 3,230 r 54,200 26,100 10,700 19,500 8,600 3,230 r 54,200 32,500 9,260 16,700 7,630 3,230 r 48,300 27,100 11,500 25,300 9,520 3,230 r 48,600 28,900 18,300 18,600 9,220 3,230 r 56,200 28,200 19,200 15,200 8,030 3,230 r 77,700 15,500 23,700 25,300 7,610 3,230 r 90,000 25,800 18,800 27,000 6,890 3,230 94,000 25,200 20,600 26,200 6,720 3,230 93,700 | Crude copper² Wire-rod mills³ Brass mills³ Other⁴ Comex⁵ LME⁶ 21,300 14,300 25,100 8,580 3,230 r 42,200 243,000 25,200 11,100 15,900 9,760 3,230 r 43,600 253,000 22,500 14,600 18,400 7,860 3,230 r 50,500 218,000 23,800 11,600 18,700 9,460 3,230 r 54,200 187,000 26,100 10,700 19,500 8,600 3,230 r 49,900 201,000 32,500 9,260 16,700 7,630 3,230 r 48,300 213,000 27,100 11,500 25,300 9,520 3,230 r 48,600 225,000 28,900 18,300 18,600 9,220 3,230 r 56,200 233,000 28,200 19,200 15,200 8,030 3,230 r 77,700 256,000 15,500 23,700 25,300 7,610 3,230 r 90,000 283,0 |

Revised.

TABLE 11
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 |
| cathode ¹ | position ² | Grade A |
| | | |
| 177.524 | 171.698 | 170.042 |
| 210.440 | 204.614 | 199.846 |
| 216.439 | 210.613 | 207.208 |
| 234.165 | 228.339 | 227.394 |
| 244.381 | 238.555 | 236.531 |
| 286.886 | 281.060 | 279.627 |
| 287.305 | 281.479 | 281.035 |
| 293.683 | 287.857 | 285.190 |
| 309.356 | 303.530 | 302.769 |
| 324.599 | 318.773 | 316.644 |
| 241.243 | 235.417 | 233.556 |
| | | |
| 339.592 | 333.766 | 335.005 |
| 317.744 | 311.918 | 310.605 |
| 345.367 | 339.541 | 338.487 |
| 334.234 | 328.408 | 328.032 |
| | delivered price cathode ¹ 177.524 210.440 216.439 234.165 244.381 286.886 287.305 293.683 309.356 324.599 241.243 339.592 317.744 345.367 | delivered price cathode¹ first position² 177.524 171.698 210.440 204.614 216.439 210.613 234.165 228.339 244.381 238.555 286.886 281.060 287.305 281.479 293.683 287.857 309.356 303.530 324.599 318.773 241.243 235.417 339.592 333.766 317.744 311.918 345.367 339.541 |

¹Listed as "U.S. producer cathode."

Source: Platts Metals Week.

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

²Copper content of blister and anode.

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

⁴Monthly estimates based on reported and 2008 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

⁵Comex Division of New York Mercantile Exchange, Inc., New York.

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

²Listed as "Comex high grade first position."

 $\label{table 12} \textbf{ NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP}$

(Cents per pound)

| | | | Dealers (| New York) |
|------------------|-------------|-------------|-----------|--------------|
| | | | | Red brass |
| | Brass mills | Refiners | No. 2 | turnings and |
| Month | No. 1 scrap | No. 2 scrap | Scrap | borings |
| 2009: | | | | |
| March | | 153.77 | 109.32 | 84.55 |
| April | 200.10 | 188.10 | 129.40 | 94.76 |
| May | 206.75 | 197.15 | 139.00 | 101.50 |
| June | 220.91 | 204.36 | 160.23 | 116.36 |
| July | 228.23 | 210.18 | 171.59 | 122.05 |
| August | 268.48 | 244.57 | 187.02 | 129.76 |
| September | 270.00 | 242.67 | 197.50 | 135.00 |
| October | 277.43 | 250.14 | 199.40 | 135.95 |
| November | 289.53 | 260.21 | 208.55 | 140.53 |
| December | 304.64 | 271.64 | 227.50 | 150.00 |
| January-December | 226.83 | 205.85 | 159.16 | 112.93 |
| 2010: | | | | |
| January | 323.42 | 294.74 | 250.13 | 156.32 |
| February | 303.89 | 282.32 | 225.92 | 160.00 |
| March | 331.83 | 310.04 | 263.37 | 173.91 |
| January-March | 319.71 | 295.70 | 246.47 | 163.41 |

Source: American Metal Market.

 ${\it TABLE~13}$ U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY ${\it CLASS}^1$

(Metric tons, copper content)

| | C | Ore and concen | trate | Matte | , ash, and prec | ipitates | Bl | ister and anode | es | Refined | | |
|------------|------|----------------|-------|-------|-----------------|----------|--------|------------------|--------|--------------------|--------|----------|
| | | 2010 | | | 2010 | | | 2010 January- | | | 2010 | |
| Country or | • | January- | | | January- | | | | | _ | | January- |
| territory | 2009 | March | March | 2009 | March | March | 2009 | March | March | 2009 | March | March |
| Belgium | | | | 7 | | | | | | 5 | | (2) |
| Brazil | | | | | | | | | | 10,800 | | 1,980 |
| Canada | 137 | 1,060 | 1,060 | 420 | 4 | 7 | 61,800 | 4,800 | 11,700 | 189,000 | 22,500 | 57,700 |
| Chile | | | | | | | | | | 312,000 | 13,800 | 78,800 |
| Finland | | | | | | | 266 | 18 | 35 | (2) r | (2) | (2) |
| Germany | | | | 22 | | | (2) | | (2) | 2,510 | 271 | 823 |
| Japan | | | | 66 | | 1 | 6 | 2 | 4 | 3,600 | 622 | 1,330 |
| Mexico | | | | | | | 6,270 | | | 19,600 | 966 | 2,730 |
| Peru | | | | | | | | | | 124,000 | 7,680 | 23,700 |
| Taiwan | | | (2) | 15 | | | | | | | (2) | (2) |
| Other | | 14 | 14 | 229 | 9 | 30 | 143 | 42 | 44 | 1,510 ^r | 301 | 728 |
| Total | 137 | 1,080 | 1,080 | 759 | 14 | 38 | 68,400 | 4,870 | 11,800 | 664,000 | 46,200 | 168,000 |

Revised. -- Zero.

Source: U.S. Census Bureau.

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

²Less than ½ unit.

 ${\it TABLE~14} \\ {\it U.S.~EXPORTS~OF~COPPER~(UNMANUFACTURED),~BY~CLASS}^1$

(Metric tons, copper content)

| | Or | e and concentr | ate | Matte, ash and precipitates | | | Blister and anodes | | | Refined | | |
|--------------------|------------------|-------------------|--------|-----------------------------|-------------------|-------|--------------------|-------------------|-------|---------------------|--------|-----------|
| | | 2010 January - | | | 2010 January - | | | 2010 January - | | | 2010 | |
| Country or | | | | | | | | | | | | January - |
| territory | 2009 | March | March | 2009 | March | March | 2009 | March | March | 2009 | March | March |
| Canada | 22,400 | 882 | 2,740 | 35,700 | 4,230 | 9,280 | 14,100 | 278 | 1,230 | 11,200 | 795 | 4,510 |
| China | 57,500 | 5,170 | 16,900 | 1,260 | | 39 | 573 | 12 | 57 | 41,400 | 7,930 | 21,600 |
| Germany | | | | 1,690 | 158 | 158 | 3,300 | 381 | 548 | 99 | (2) | (2) |
| Hong Kong | (2) | | | | | | 1,740 | 198 | 356 | 3,570 | 1,270 | 2,250 |
| Japan | 21,400 | | 2,970 | 176 | 9 | 9 | 478 | 75 | 1,160 | 81 | | |
| Korea, Republic of | 9,030 | | | | | | 2,920 | 54 | 198 | 23 | | |
| Mexico | 36,700 | 2,470 | 5,660 | | | | 44 | 1 | 3 | 7,950 | 3,590 | 4,510 |
| Singapore | | | | 7 | | | 92 | 19 | 34 | 1,570 | | |
| Spain | 3 | | | 1,140 | | | | 20 | 41 | 17 | | 20 |
| Sweden | | | | | | | 169 | 1 | 6 | 1 | | |
| Switzerland | 3,640 | 3,730 | 3,730 | | | | 72 | | 3 | 2,170 | | |
| Taiwan | | | | 75 | | | 441 | 19 | 76 | 534 | | 800 |
| Other | 129 ^r | | 3 | 886 | | 19 | 2,010 ^r | 232 | 509 | 12,200 ^r | 50 | 101 |
| Total | 151,000 | 12,200 | 32,000 | 40,900 | 4,390 | 9,510 | 26,000 | 1,290 | 4,220 | 80,800 | 13,600 | 33,800 |

Revised. -- Zero.

Source: U.S. Census Bureau.

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

²Less than ½ unit.

 $\label{eq:table 15} \text{U.S. COPPER SCRAP IMPORTS}^1$

(Metric tons, gross weight)

| | | Unalloyed | | | Alloyed | | |
|------------|--------|-----------|-----------|--------|---------|-----------|--|
| | • | 201 | 10 | • | 201 | 0 | |
| Country or | | | January - | • | | January - | |
| territory | 2009 | March | March | 2009 | March | March | |
| Canada | 7,340 | 848 | 2,200 | 24,900 | 2,450 | 7,550 | |
| Chile | 25 | | | 230 | | | |
| Costa Rica | 275 | 67 | 138 | 1,290 | 179 | 494 | |
| Germany | 88 | 1 | 8 | 54 | 3 | 3 | |
| Guatemala | 272 | 73 | 146 | 433 | 98 | 229 | |
| Honduras | 474 | | | 355 | 20 | 106 | |
| Jamaica | 198 | 27 | 77 | 334 | 33 | 109 | |
| Japan | 16 | 2 | 12 | 18 | | | |
| Mexico | 4,840 | 639 | 1,630 | 22,900 | 2,580 | 6,800 | |
| Nicaragua | 666 | 104 | 316 | 441 | 155 | 389 | |
| Other | 2,100 | 188 | 550 | 4,580 | 401 | 1,910 | |
| Total | 16,300 | 1,950 | 5,080 | 55,500 | 5,920 | 17,600 | |

⁻⁻ Zero.

Source: U.S. Census Bureau.

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

TABLE 16 U.S. COPPER SCRAP EXPORTS¹

(Metric tons, gross weight)

| | | | | Unalloyed | Alloyed | | | | | | | |
|--------------------|---------|--------------------|--------|-----------------|---------|-----------------|--------|---------|------------------------|--------|--------------|----------|
| | | 2010 | | | | | | | 2010 | | | |
| | • | No. 1 January - | | No. 2 January - | | Other January - | | | Segregated January- | | Unsegregated | |
| Country or | | | | | | | | | | | | January- |
| territory | 2009 | March | March | March | March | March | March | 2009 | March | March | March | March |
| Belgium | 2,160 | 94 | 177 | | 97 | 187 | 249 | 14,900 | 344 | 1,100 | 937 | 2,130 |
| Canada | 6,320 | | | | | 1,200 | 4,270 | 32,300 | 281 | 608 | 1,740 | 4,950 |
| China | 190,000 | 2,250 | 8,030 | 7,330 | 24,100 | 4,860 | 18,100 | 416,000 | 19,300 | 49,300 | 21,200 | 57,100 |
| Germany | 1,510 | 98 | 287 | 58 | 343 | 14 | 36 | 6,600 | 226 | 587 | 594 | 1,020 |
| Hong Kong | 15,600 | 193 | 422 | 641 | 2,010 | 319 | 1,370 | 37,400 | 683 | 3,110 | 3,590 | 8,000 |
| India | 356 | | 21 | | | 80 | 137 | 11,100 | 936 | 3,340 | 1,240 | 1,470 |
| Japan | 3,220 | 349 | 528 | 98 | 216 | 271 | 545 | 10,200 | 583 | 1,260 | 163 | 627 |
| Korea, Republic of | 8,400 | 516 | 1,410 | 506 | 1,400 | 282 | 1,070 | 21,500 | 1,170 | 2,670 | 272 | 1,090 |
| Mexico | 1,580 | 199 | 347 | 89 | 205 | | 76 | 9,990 | 9 | 18 | 632 | 1,180 |
| Spain | 1,480 | 59 | 293 | | | | | 10,900 | 80 | 136 | 830 | 2,440 |
| Taiwan | 6,980 | 49 | 272 | 4 | 183 | 77 | 347 | 6,510 | | 101 | | 32 |
| Thailand | 1,300 | | | | | 59 | 193 | 347 | 258 | 296 | | 40 |
| Other | 5,640 | 431 | 2,020 | 37 | 196 | | 95 | 19,900 | 47 | 274 | 843 | 2,950 |
| Total | 245,000 | 4,240 | 13,800 | 8,760 | 28,700 | 7,340 | 26,500 | 598,000 | 23,900 | 62,800 | 32,000 | 83,000 |

⁻⁻ Zero.

Source: U.S. Census Bureau.

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