



Copper Development
Association Inc.
Copper Alliance

COPPER SUPPLY & CONSUMPTION 2001 — 2022





Preface

Statistical data on the supply and consumption of copper and copper alloys in the United States are available from many governmental and private sources. In this report, original data from these sources are brought together and rationalized by CDA and Global Market Consultants, Inc. (GMC) to provide a set of data on U.S. copper supply and consumption that is both consistent and accurate in all aspects from mine to end-use market.

The main sources of information assembled here include, the U.S. Department of the Interior's, U.S. Geological Survey, National Minerals Information Center; the U.S. Department of Commerce's, Bureau of the Census; the U.S. International Trade Administration and Copper Development Association Inc. Where data from different sources are conflicting, and where original data appear to be in error, the best judgment has been applied. General sources are shown in the tables throughout the report. Those interested to know the specific sources of any of the data should contact CDA.

The statistics are arranged in a logical sequence to trace the flow of copper in the U.S. economy from mining and scrap collection through smelting, refining and ingot making to wire rod mills to wire mills, brass mills, and foundries to the final end-use markets. This flow is shown schematically on pages 4 and 5. On this schematic flow sheet the major statistics of copper supply and consumption in the United States for 2022 appear. Along with each major statistic on the chart, a reference is shown. This reference identifies the table in the report where details on that item, from 2002 through 2022, will be found. Most data for 2022 are preliminary.

There are four major tables in the report. Table 1 covers the supply of primary copper. Table 2 presents data on the supply of copper from secondary sources. In Table 3, statistics on the consumption of primary and secondary metals by mills, foundries and other industries are summarized. These three tables are provided by Global Market Consultants, Inc.

Finally, Table 4 details the supply of mill, foundry and powder products and their consumption in five end-use market areas. In each of these tables, additions to the flow (such as net imports) are indicated as positive numbers, while subtractions from the flow (such as melting losses or net additions to stocks) are shown in parentheses.

The arrangement of the data in the report can be illustrated with an example. Consider Mine Production, the upper left-hand box in the flow sheet on page 4. As shown in the box, mine production of copper in the United States totaled 1,359 thousand short tons in 2022. Beneath this figure a number appears referring to Table 1, abbreviated 1 (1). This means that in Table 1, on Line (1), mine production is shown for the full period 2002 through 2022. In Table 1, on Line (1), a further reference will be found after the item heading Mine Production, directing the reader elsewhere on page 6. In fact, on page 6, a table entitled Table 1, Item 1 presents the data on mine production by state for 2002 through 2022. In this way all the data on supply and consumption appear in logical sequence proceeding through the report, eliminating the need for explanatory text.

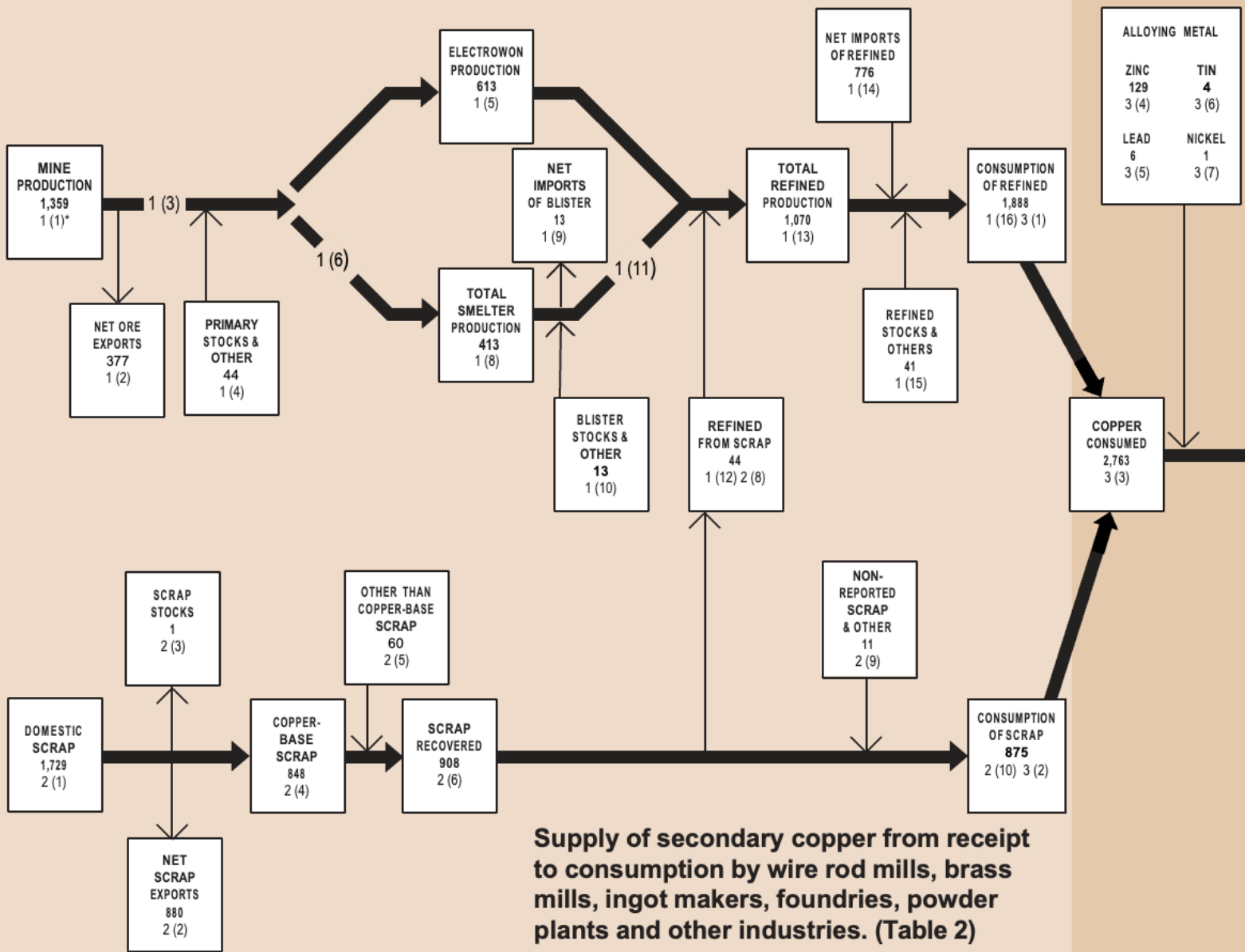


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Supply of primary copper from mine to consumption by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries. (Table 1)

COPPER CONTENT, thousands of short tons



Supply of secondary copper from receipt to consumption by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries. (Table 2)

COPPER CONTENT, thousands of short tons

*1 (1) Refers to table and item in report where data for 2002 through 2022 appear.

Note: Numbers may not sum due to rounding.

Consumption of metals by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries. (Table 3)

METAL CONTENT, thousands of short tons

Supply of wire mill, brass mill, foundry and powder products and their consumption in the end-use markets. (Table 4)

METAL CONTENT, millions of pounds

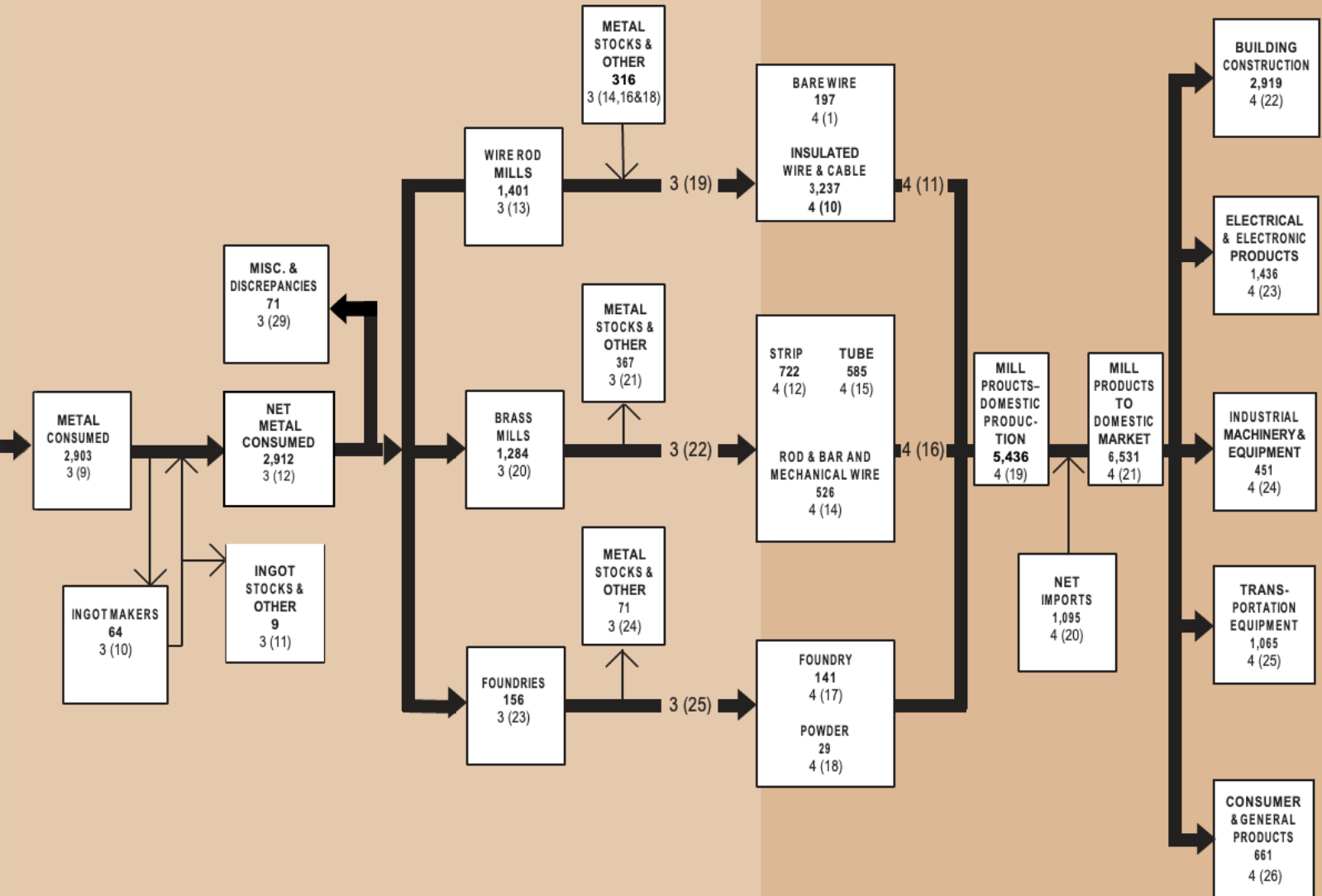


Table 1.**Supply of primary copper from mine to consumption by wire rod mills,
brass mills, ingot makers, foundries, powder plants and other industries**

	Copper Content, thousands of short tons																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p	
(1) Mine Production (page 6).....	1,256	1,230	1,275	1,257	1,319	1,287	1,444	1,302	1,224	1,227	1,290	1,376	1,490	1,551	1,576	1,388	1,347	1,386	1,325	1,356	r	1,359
(2) Net Ore/Conc./Matte Imports (page 8) ^(a)	36	4	(24)	(195)	(222)	(214)	(381)	(166)	(150)	(261)	(325)	(379)	(452)	(432)	(365)	(246)	(243)	(370)	(420)	(371)	r	(377)
(3) Total Primary.....	1,292	1,234	1,251	1,062	1,097	1,074	1,063	1,136	1,074	966	965	997	1,038	1,119	1,212	1,142	1,104	1,015	905	984	r	983
(4) Primary Stocks and Other.....	123	12	(10)	126	39	162	127	46	62	120	89	96	104	110	87	(10)	74	77	58	32	r	44
(5) Electrowon Production.....	662	652	644	611	584	556	560	525	474	493	519	524	567	648	678	614	586	581	616	620	r	613
(6) Smelter Production from Primary.....	753	594	597	577	552	680	630	658	662	593	535	569	575	581	621	518	591	511	347	397	r	413
(7) Smelter Production from Scrap.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	r	0
(8) Total Smelter Production (page 8).....	753	594	597	577	552	680	630	658	663	593	535	569	575	581	621	518	591	511	347	397	r	413
(9) Net Imports of Blister/Anode (page 8).....	127	144	115	100	167	152	110	49	10	(15)	(15)	(11)	(12)	(11)	(10)	(10)	(8)	(7)	(26)	r	(13)	
(10) Blister/Anode Stocks and Other (page 9).....	48	(9)	27	45	24	23	51	(9)	22	23	21	14	28	(16)	12	24	12	1	7	77	r	13
(11) Refined Production from Blister/Anode.....	928	729	740	721	744	855	791	699	694	601	541	571	591	553	623	532	593	505	347	448	r	413
(12) Refined Production from Scrap.....	77	59	56	52	49	51	60	51	42	41	44	52	51	54	51	44	45	49	48	54	r	44
(13) Total Refined Production (page 9).....	1,667	1,440	1,439	1,384	1,378	1,462	1,411	1,275	1,210	1,135	1,104	1,146	1,208	1,255	1,352	1,191	1,225	1,135	1,011	1,121	r	1,070
(14) Net Imports of Refined (page 9).....	1,136	622	636	1,023	1,117	961	776	643	581	734	519	685	543	661	633	792	648	593	700	961	r	776
(15) Refined Stocks and Other (page 10).....	(197)	462	587	99	(168)	33	41	(101)	157	68	317	182	181	66	12	2	123	299	172	(164)	r	41
(16) Consumption of Refined (page 10).....	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,936	1,940	2,013	1,933	1,982	1,996	1,985	1,996	2,026	1,883	1,917	r	1,888

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - Included with domestic ore.

Numbers may not sum due to rounding.

Table 1, Item 1.**Copper content of mine production in the United States¹**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p	
Arizona.....	845	817	797	761	785	806	923	784	775	828	843	876	980	1,086	1,068	957	883	947	970	956	r	942
Other States ^(a)	411	413	478	496	535	482	521	518	448	399	446	499	510	465	508	431	464	439	355	400	r	417
TOTAL	1,256	1,230	1,275	1,257	1,319	1,287	1,444	1,302	1,224	1,227	1,290	1,376	1,490	1,551	1,576	1,388	1,347	1,386	1,325	1,356	r	1,359

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - Includes California, Colorado, Idaho, Illinois, Kentucky, Maine, Michigan, Missouri, Montana, Nevada, New Mexico, Oregon, Pennsylvania, Tennessee, Utah and Washington.

(1) Copper content of concentrates, precipitates, or electrowon.

Numbers may not sum due to rounding.

Table 1, Item 1a.

Copper content of world mine production

Copper Content, thousands of short tons																						
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p	
Australasia																						
Australia.....	968	915	941	1,010	947	960	974	941	959	1,058	1,015	1,100	1,070	1,062	1,045	948	1,079	1,034	969	875	r	900
Papua New Guinea.....	233	216	191	213	214	187	176	184	176	144	138	116	84	53	88	116	106	116	91	72	r	86
Total Australasia.....	1,201	1,131	1,133	1,223	1,161	1,147	1,150	1,125	1,135	1,202	1,153	1,217	1,153	1,115	1,134	1,064	1,185	1,150	1,060	947	r	986
Americas																						
Argentina.....	225	219	194	206	199	199	173	158	155	129	150	121	113	88	90	37	19	0	-	-	-	-
Brazil.....	34	30	109	144	158	227	243	228	236	238	244	299	324	382	369	424	425	398	402	372	r	331
Canada.....	665	615	620	656	665	657	669	540	579	624	638	697	767	769	780	668	598	631	646	604	r	573
Chile.....	5,049	5,406	5,966	5,865	5,909	6,125	5,873	5,941	5,973	5,801	5,990	6,367	6,338	6,363	6,121	6,067	6,428	6,380	6,320	6,200	r	5,869
Mexico.....	363	394	447	473	368	372	272	263	298	485	551	531	568	655	845	818	828	847	808	809	r	810
Peru.....	931	929	1,142	1,113	1,156	1,312	1,398	1,407	1,375	1,362	1,431	1,516	1,521	1,875	2,595	2,696	2,686	2,707	2,370	2,564	r	2,695
United States.....	1,256	1,230	1,275	1,257	1,319	1,288	1,444	1,302	1,224	1,227	1,290	1,376	1,488	1,551	1,576	1,576	1,389	1,412	1,325	1,356	r	1,359
Total Americas.....	8,523	8,823	9,754	9,715	9,774	10,180	10,072	9,838	9,839	9,866	10,294	10,907	11,118	11,662	12,377	12,285	12,374	12,375	11,872	11,905	r	11,637
Europe																						
Bulgaria.....	105	103	104	104	122	121	116	116	116	126	119	121	121	121	121	121	121	121	121	121	r	118
Poland.....	554	546	585	564	548	498	473	484	469	470	471	473	464	469	468	462	442	440	433	431	r	433
Portugal.....	85	85	105	99	87	99	99	96	82	88	81	84	83	90	84	75	54	46	35	42	r	35
Scandinavia.....	95	108	108	112	110	84	78	76	101	107	119	134	135	129	139	174	169	151	149	132	r	128
Serbia.....	34	23	13	14	13	18	21	21	0	—	—	—	—	—	—	48	50	51	58	133	r	225
Total Europe.....	873	865	916	893	880	821	786	793	767	791	790	812	803	810	813	880	836	808	796	860	r	938
Asia																						
Russian Federation.....	730	694	694	705	744	761	777	745	775	799	794	799	816	769	755	796	852	871	971	989	r	986
Armenia.....	—	—	—	—	—	—	—	—	—	—	—	—	56	91	113	124	84	116	109	108	r	89
China.....	780	816	977	998	1,126	1,043	1,205	1,171	1,300	1,402	1,642	1,891	1,963	1,881	2,095	1,881	1,754	1,795	1,900	2,004	r	2,136
India.....	34	32	33	25	32	36	31	33	36	40	33	43	32	33	34	35	38	31	25	29	r	26
Indonesia.....	1,282	1,106	929	1,174	900	870	717	1,098	962	599	439	561	418	638	802	686	718	398	557	829	r	1,064
Iran.....	146	162	161	181	238	269	273	289	283	334	271	246	239	272	319	333	349	344	346	374	r	379
Kazakhstan ⁽³⁾	522	535	509	443	479	448	465	448	419	479	460	493	484	489	535	535	699	767	774	702	r	636
Laos ⁽⁴⁾	—	—	—	—	—	—	—	—	—	—	—	171	176	185	185	169	167	156	97	44	r	41
Mongolia ⁽⁵⁾	—	—	—	—	—	146	143	142	139	137	137	219	295	366	387	343	336	322	321	335	r	295
Philippines.....	21	22	18	18	19	24	24	52	65	70	72	102	99	93	92	75	72	78	67	56	r	66
Turkey.....	—	—	—	—	—	—	—	—	—	—	—	—	134	119	110	91	88	81	118	121	r	127
Total Asia.....	3,515	3,367	3,322	3,544	3,538	3,598	3,634	3,976	3,979	3,859	3,848	4,525	4,711	4,937	5,426	5,067	5,157	4,958	5,284	5,591	r	6,045
Africa																						
Congo.....	42	70	82	111	141	157	236	332	401	529	619	925	1,008	1,002	1,084	1,169	1,370	1,415	1,679	2,057	r	2,529
Namibia.....	20	18	15	12	7	11	10	—	—	4	6	5	6	15	18	17	7	17	12	1	r	0
South Africa.....	100	99	96	96	99	107	120	119	113	127	89	84	87	85	72	72	53	58	32	56	r	55
Zambia.....	376	384	443	477	523	561	612	614	756	864	766	838	776	791	841	875	941	879	940	928	r	879
Total Africa.....	538	571	636	697	769	836	977	1,065	1,270	1,524	1,480	1,852	1,877	1,893	2,015	2,134	2,371	2,369	2,662	3,042	r	3,463
Other⁽⁶⁾.....	320	320	520	548	600	476	509	741	686	720	856	828	716	673	675	881	813	995	1,072	1,109	r	1,110
TOTAL WORLD.....	14,970	15,077	16,281	16,620	16,721	17,057	17,127	17,539	17,676	17,962	18,421	20,141	20,380	21,090	22,439	22,309	22,736	22,655	22,748	23,455	r	24,181

Sources: International Copper Study Group

p - preliminary r - revised

(1) Copper content of concentrates, precipitates, or electrowon.

(2) Included in "Other" starting in 1995.

(3) Kazakhstan reported separately from the Russian Federation starting in 1992; included with Russian Federation for 1986-1991.

(4) Laos no longer included with Other starting in 2013.

(5) Mongolia no longer included with China starting in 2007.

(6) Includes countries from various continents, making the continent totals somewhat low.

Numbers may not sum due to rounding.



Table 1, Item 2.

Imports and exports of copper ore, concentrates, matte, ash and precipitates in the United States

Copper Content, thousands of short tons																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
Imports (Ore, Concentrate, Matte, Ash).....	80	32	27	2	2	3	2	0	2	17	7	5	0	0	0	16	35	30	2	12	13
Exports (Ore, Concentrate, Matte, Ash).....	(44)	(28)	(51)	(197)	(224)	(217)	(383)	(166)	(151)	(278)	(332)	(384)	(452)	(432)	(365)	(261)	(279)	(400)	(422)	(384)	(389)
Net Imports (Ore, Concentrate, Matte, Ash)^m.....	36	4	(24)	(195)	(222)	(214)	(381)	(166)	(150)	(261)	(325)	(379)	(452)	(432)	(365)	(246)	(243)	(370)	(420)	(371)	(377)

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center
p - preliminary, r - revised
(a) - () sign denotes net exports.
Numbers may not sum due to rounding.

Table 1, Item 8.

Smelter production of copper in the United States

Copper Content, thousands of short tons																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
Smelter Production - Domestic Ore (Table 1, Item 6).....	753	594	597	577	552	680	630	658	662	593	535	569	575	581	621	518	591	511	347	397	r 413
Smelter Production - Foreign Ore (a).....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Smelter Production - Scrap (Table 1, Item 7)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL SMELTER PRODUCTION.....	753	594	597	577	552	680	630	658	662	593	535	569	575	581	621	518	591	511	347	397	r 413

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center
p - preliminary, r - revised
(a) - Included with domestic ore.
Numbers may not sum due to rounding.

Table 1, Item 9.

Imports and exports of blister and anode copper in the United States

Copper Content, thousands of short tons																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
Imports of Blister/Anode Copper.....	163	173	166	146	198	169	136	75	25	1	1	1	1	0	0	1	0	0	0	0	0
Exports of Blister/Anode Copper.....	(36)	(29)	(51)	(46)	(21)	(17)	(26)	(26)	(19)	(16)	(15)	(12)	(13)	(12)	(10)	(11)	(10)	(8)	(7)	(7)	r (13)
Net Imports of Blister/Anode Copper.....	127	144	115	100	167	152	110	49	10	(15)	(15)	(11)	(12)	(11)	(10)	(10)	(8)	(7)	(7)	(26)	r (13)

Source: U.S. Department of the Interior, U.S. Geological Survey.
p - preliminary, r - revised
Numbers may not sum due to rounding.



Table 1, Item 10.

Blister and anode stocks and other

Copper Content, thousands of short tons																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
End-of-Year Blister/Anode Copper Stocks.....	49	63	57	49	21	29	27	17	29	14	14	14	11	15	16	14	10	18	10	18	15
Net Change ^(a)	(59)	14	(6)	(8)	(28)	8	(2)	(10)	12	(15)	(1)	0	(3)	4	1	(2)	(4)	8	(8)	7	7
Apparent Change ^(b)	(48)	9	(27)	(45)	(24)	(23)	(51)	9	(22)	(23)	(21)	(14)	(28)	16	(12)	(24)	(12)	(1)	(7)	(77)	r (13)

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - Net Change - the year-to-year increase (+) or decrease (-) of blister copper stocks as reported.

(b) - Apparent Change - the difference between Line 11 and the sum of Lines 8 & 9 in Table 1, required to rationalize the CDA flow sheet. Factors other than changes in stocks are included in the apparent change.

The sign of the data + or (-) is opposite that shown in Table 1.

Numbers may not sum due to rounding.

Table 1, Item 13.

Production of refined copper in the United States

Copper Content, thousands of short tons																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
Refined Production - Primary Sources (Table 1, Items 1,2,4,9 and 10).....	1,590	1,381	1,383	1,332	1,328	1,411	1,351	1,224	1,168	1,093	1,060	1,095	1,157	1,202	1,301	1,146	1,179	1,086	963	1,067	1,026
Refined Production - Scrap at Smelters (Table 1, Item 7).....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refined Production - Scrap at Refiners (Table 1, Item 12).....	77	59	56	52	49	51	60	51	42	41	44	52	51	54	51	44	45	49	48	54	44
TOTAL REFINED PRODUCTION.....	1,667	1,440	1,439	1,384	1,378	1,462	1,411	1,275	1,210	1,135	1,104	1,146	1,208	1,255	1,352	1,191	1,225	1,135	1,011	1,121	1,070

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

Numbers may not sum due to rounding.

Table 1, Item 14.

Imports and exports of refined copper in the United States

Copper Content, thousands of short tons																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
General Imports of Refined Copper ¹	1,168	758	776	1,077	1,184	917	798	732	667	739	694	809	683	756	780	896	858	731	745	1,013	807
Total Exports of Refined Copper.....	(32)	(136)	(140)	(54)	(67)	(56)	(22)	(89)	(86)	(5)	(175)	(125)	(140)	(95)	(148)	(104)	(209)	(138)	(45)	(52)	(30)
Net Imports of Refined Copper.....	1,136	622	636	1,023	1,117	861	776	643	581	734	519	685	543	661	633	792	648	593	700	961	776

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

¹ General Imports measure the total physical arrivals of merchandise from foreign countries, whether such merchandise enters consumption channels immediately or is entered into bonded warehouses or Foreign Trade Zones under Customs custody.

Numbers may not sum due to rounding.



Table 1, Item 15.

Refined stocks and other

	Copper Content, thousands of short tons																				
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
End-of-year Refined Copper Stocks at:																					
Refineries.....	13	13	11	9	31	24	17	26	11	9	14	17	11	13	5	6	4	8	4	6	10
Wire Rod Mills.....	25	33	22	22	24	23	25	28	22	26	31	36	46	40	29	31	24	22	12	13	20
Brass Mills.....	32	22	24	27	38	11	9	8	7	8	7	7	7	8	8	9	9	8	9	10	12
Other Processors.....	5	5	4	6	6	6	4	5	5	5	5	5	5	8	8	6	6	8	8	8	7
Government.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Commodity Exchange.....	399	281	48	7	34	15	36	99	65	88	71	17	27	70	88	211	110	38	77	70	35
London Metal Exchange ¹	662	369	39	1	83	67	117	312	313	315	132	204	112	92	109	30	115	39	20	22	8
End-of-Year Total.....	1,136	723	148	73	216	146	207	478	423	451	260	285	208	232	248	292	268	122	130	130	91
Net Change ^(a)	81	(413)	(575)	(75)	144	(70)	61	271	(56)	29	(191)	25	(77)	24	14	46	(24)	(146)	8	(1)	(38)
Apparent Change ^(b)	197	(462)	(587)	(99)	168	(33)	(41)	101	(157)	(68)	(317)	(182)	(181)	(66)	(12)	(2)	(123)	(299)	(172)	164	(41)

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - Net Change - the year-to-year increase (+) or decrease

(b) - Apparent Change - the difference between Line 16 and the sum of Lines 13 and 14 in Table 1, required to rationalize the CDA flow sheet. Factors other than changes in stocks are included in the apparent change. The sign of the data (+) or (-) is opposite that shown in Table 1.

¹ Prior to 1995 there were no LME warehouses in the USA.

Numbers may not sum due to rounding.

Table 1, Item 16.

Consumption of refined copper in the United States

	Copper Content, thousands of short tons																				
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
Consumption of Refined Copper by:																					
Wire Rod Mills.....	1,885	1,809	1,962	1,852	1,731	1,775	1,642	1,257	1,378	1,400	1,411	1,444	1,400	1,455	1,455	1,455	1,466	1,499	1,356	1,422	1,378
Brass Mills.....	654	647	632	582	540	525	528	500	506	474	467	504	467	465	464	463	462	455	455	457	463
Ingot Makers.....	5	5	5	5	5	5	3	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Foundries and Other Industries ^(a)	62	63	63	67	51	51	55	60	63	62	62	65	65	62	77	67	68	72	72	38	47
Powder Plants ^(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Other Industries.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL REFINED CONSUMPTION.....	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,936	1,940	2,013	1,933	1,982	1,996	1,985	1,996	2,026	1,883	1,917	1,888

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - Starting with 1995 Powder Plants data are included with Foundries. Starting in 2009 Ingot Makers data are also included with Foundries.

Numbers may not sum due to rounding.



Table 2.
**Supply of secondary copper from receipt to consumption by brass mills,
ingot makers, foundries, powder plants and other industries**

	Copper Content, thousands of short tons																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p	
(1) Receipts of Domestic Scrap.....	1,423	1,511	1,557	1,511	1,623	1,570	1,755	1,648	1,810	2,064	2,023	1,978	1,857	1,730	1,824	1,809	1,699	1,532	1,595	1,689	r	1,729.0
(2) Net Scrap Imports (page 12) ^(a)	(359)	(538)	(549)	(512)	(628)	(653)	(883)	(850)	(1,033)	(1,246)	(1,202)	(1,158)	(1,024)	(930)	(901)	(925)	(832)	(658)	(730)	(854)	r	-879.8
(3) Scrap Stocks (page 12).....	3	3	(11)	(9)	(2)	20	0	5	31	0	0	1	(2)	0	(54)	(15)	(0)	(0)	24	27	r	-1.2
(4) Recovery from Copper-Base Scrap (page 13)	1,067	977	996	990	992	937	873	803	808	818	821	821	830	800	868	870	868	874	890	863	r	848.1
(5) Recovery from Other Scrap (page 13)	68	64	68	61	77	83	67	51	57	67	70	71	76	74	74	76	76	81	60	62	r	60.1
(6) Total Scrap Recovery (page 13).....	1,135	1,041	1,064	1,051	1,069	1,020	940	854	865	885	891	892	906	873	943	946	944	954	950	925	r	908.2
(7) Smelter Production from Scrap.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(8) Refined Production from Scrap.....	(77)	(59)	(56)	(52)	(49)	(51)	(60)	(51)	(42)	(41)	(44)	(52)	(51)	(54)	(51)	(44)	(45)	(49)	(48)	(54)	r	-44.1
(9) Non-Reported Scrap & Other.....	(2)	8	8	8	8	9	10	9	0	0	0	0	1	1	1	(5)	(0)	0	20	37	r	11.1
(10) Consumption of Scrap (page 13).....	1,056	990	1,016	1,006	1,027	978	890	812	823	843	847	841	856	820	893	897	898	905	922	908	r	875.2

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center
p - preliminary, r - revised
(a) - () sign denotes net exports.
Numbers may not sum due to rounding.



Table 2, Item 2.

Imports and exports of copper-base scrap in the United States

Copper Content, thousands of short tons																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
Imports of Copper-Base Scrap.....	89	78	88	100	101	124	117	79	106	121	115	117	129	123	138	182	174	152	126	157	142
Exports of Copper-Base Scrap.....	(448)	(616)	(637)	(612)	(729)	(777)	(1,000)	(929)	(1,139)	(1,367)	(1,317)	(1,275)	(1,153)	(1,053)	(1,039)	(1,107)	(1,005)	(810)	(855)	(1,011) r	(1,022)
Net Imports of Copper-Base Scrap^(a).....	(359)	(538)	(549)	(512)	(628)	(653)	(883)	(850)	(1,033)	(1,246)	(1,202)	(1,158)	(1,024)	(930)	(901)	(925)	(832)	(658)	(730)	(854) r	(880)

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - The () sign for each year is used to be consistent with the convention used in Tables 1, 2 and 4, namely that imports are additions to the domestic flow, and therefore (+), while exports are subtractions from the flow, and therefore (-).

Numbers may not sum due to rounding

Table 2, Item 3.

Copper-base scrap stocks

Copper Content, thousands of short tons																						
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p	
Scrap Copper-Base Stocks at:																						
Brass Mills.....	42	40	51	56	58	40	40	36	1	1	2	4	5	5	2	2	2	2	2	2	r	2
Secondary Smelters & Primary Producers...	8	7	7	12	12	10	11	8	12	10	11	9	9	9	66	81	81	81	58	33	r	34
Foundries.....	5	5	4	4	4	4	3	5	5	7	5	5	5	5	5	5	5	5	4	2	r	2
Other Processors.....																						
End-of Year Total.....	55	52	63	72	74	54	54	49	18	18	18	17	19	19	73	88	88	88	64	36	r	38
Net Change^(a).....	(3)	(3)	11	9	2	(20)	(0)	(5)	(31)	(0)	(0)	(1)	2	(0)	54	15	0	0	(24)	(27)	r	1

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - Net Change - the year-to-year increase (+) or decrease (-) of

Numbers may not sum due to rounding.

Table 2, Item 6.

Recovery of copper from scrap

Copper Content, thousands of short tons																						
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p	
Copper Recovered from Copper-Base Scrap.....																						
New Scrap.....	885	773	810	805	851	797	726	670	675	681	669	657	685	662	725	743	741	741	756	713	r	707
Old Scrap.....	182	204	186	185	141	140	147	132	133	137	152	164	145	138	143	127	127	133	133	150	r	141
Total (Table 2, Item 4).....	1,067	977	996	990	992	937	873	803	808	818	821	821	830	800	868	870	868	874	890	880		880
Copper Recovered from Scrap other than Copper-Base																						
New Scrap.....	41	40	43	44	52	50	42	32	33	35	36	37	40	40	41	42	42	45	35	39	r	38
Old Scrap.....	27	24	25	17	25	33	26	19	24	32	34	34	36	33	33	34	34	36	25	22	r	22
Total (Table 2, Item 5).....	68	64	68	61	77	83	67	51	57	67	70	71	76	74	74	76	76	81	60	62		60
Copper Recovered from All Scrap																						
New Scrap.....	926	813	853	848	902	846	768	703	708	716	706	694	726	702	766	786	783	786	792	752	r	745
Old Scrap.....	209	228	211	202	166	173	172	151	158	169	186	198	181	171	176	161	161	169	158	172	r	163
Total Copper Recovered (Table 2, Item 6).....	1,135	1,041	1,064	1,051	1,069	1,020	940	854	865	885	891	892	906	873	943	946	944	954	950	925	r	908

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center
p - preliminary, r - revised
Numbers may not sum due to rounding.

Table 2, Item 10.

Consumption of copper scrap in the United States

Copper Content, thousands of short tons																						
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p	
Consumption of Copper Scrap																						
by:																						
Wire Rod Mills.....	30	28	29	29	30	28	26	24	25	25	20	20	21	20	22	23	23	23	24	23		23
Brass Mills.....	779	717	748	739	763	710	651	605	608	615	611	604	647	608	663	688	697	697	713	699		693
Ingot Makers.....	109	101	99	104	91	100	87	83	84	86	84	83	62	62	80	63	63	64	64	64		44
Foundries.....	79	80	72	74	66	57	59	49	50	51	63	62	50	54	52	52	40	41	41	41		44
Powder Plants ^(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)		(a)
Chemical Plants ^(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)		(b)
Non-copper based scrap.....	68	64	68	61	77	83	67	51	57	67	70	72	77	72	72	76	76	80	80	62	r	62
Miscellaneous Adjustments.....	(9)	—	—	—	—	—	—	—	—	—	—	—	—	3	3	(4)	0	5	2	20	r	10
TOTAL COPPER CONSUMED.....	1,056	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	820	893	897	898	905	922	908	r	875

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center
p - preliminary, r - revised
(a) - Starting with 1995 Powder Plants data are included with Foundries.
(b) - Chemical Plants data included with Foundries.
Numbers may not sum due to rounding.

Table 3.
Consumption of metals by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries

		Copper Content, thousands of short tons																				
		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
(1)	Consumption of Refined Copper (Table 1, Item 16)	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,936	1,940	2,013	1,933	1,982	1,996	1,985	1,996	2,026	1,883	1,917	r 1,888.3
(2)	Consumption of Copper in Scrap (Table 2, Item 10)	1,056	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	820	893	897	898	905	922	908	r 875.2
(3)	Total Copper Consumed (page 15)	3,662	3,514	3,678	3,512	3,354	3,334	3,118	2,628	2,771	2,780	2,788	2,854	2,789	2,802	2,889	2,882	2,894	2,932	2,806	2,826	r 2,763.5
(4)	Consumption of Zinc.....	296	266	284	273	268	253	226	238	236	186	196	166	162	145	134	134	134	133	143	139	r 128.8
(5)	Consumption of Lead.....	15	13	14	11	11	11	13	12	11	13	10	10	12	11	10	7	7	10	7	6	r 6.1
(6)	Consumption of Tin.....	10	8	8	9	9	9	8	8	7	11	9	8	7	6	6	5	5	6	4	4	r 3.7
(7)	Consumption of Nickel.....	6	6	7	7	6	6	5	5	5	2	1	1	2	1	1	0	0	0	0	1	r 1.2
(8)	Total Alloying Metal Consumed (page 16)	327	293	314	300	295	278	252	263	259	212	217	186	183	164	151	145	145	150	155	150	r 139.8
(9)	Total Metal Consumed	3,989	3,807	3,992	3,812	3,649	3,611	3,371	2,891	3,030	2,991	3,004	3,040	2,972	2,966	3,040	3,027	3,039	3,081	2,961	2,976	r 2,903.3
(10)	Ingot Consumed (page 17) ^(a)	122	112	109	102	97	90	84	85	83	68	68	65	65	62	65	65	65	65	65	61	r 63.5
(11)	Ingot Stocks & Other ^{(a)(b)}	(16)	(14)	(17)	(27)	(20)	(38)	(30)	(28)	(23)	(41)	(40)	(38)	(17)	(18)	(32)	(14)	(13)	(16)	(12)	(13)	r 8.9
(12)	Net Metal Consumed (page 17).....	3,972	3,793	3,974	3,785	3,629	3,573	3,341	2,863	3,007	2,950	2,965	3,002	2,956	2,948	3,008	3,013	3,027	3,066	2,949	2,963	r 2,912.2
(13)	Wire Rod Mills - Net Metal Consumed (p 17)	1,915	1,837	1,991	1,881	1,760	1,802	1,668	1,281	1,403	1,425	1,431	1,464	1,421	1,475	1,477	1,478	1,489	1,522	1,379	1,445	1,400.9
(14)	Wire Rod Mills - Metal Stocks & Other....	32	(29)	(30)	(201)	(13)	(40)	7	(24)	(36)	(47)	(20)	(9)	1	(31)	(44)	(23)	(32)	(67)	(13)	54	65.2
(15)	Wire Rod Mills - Shipments.....	1,947	1,808	1,961	1,680	1,747	1,783	1,676	1,257	1,367	1,378	1,411	1,455	1,422	1,444	1,433	1,455	1,466	1,455	1,367	1,499	1,466.1
(16)	Wire Rod - Net Imports.....	339	241	208	486	446	159	77	1	(43)	36	(5)	15	10	(19)	(20)	(52)	32	84	70	302	r 542.2
(17)	Wire Mills - Net Metal Consumed.....	2,286	2,049	2,169	2,166	2,193	1,922	1,753	1,257	1,324	1,414	1,406	1,470	1,432	1,425	1,413	1,403	1,498	1,539	1,436	1,801	r 2,008.3
(18)	Wire Mills - Metal Stocks & Other.....	(540)	(197)	(151)	(109)	(304)	(181)	(207)	151	77	(134)	16	(15)	(10)	30	72	115	72	59	121	(97)	r (291.4)
(19)	Wire Mills - Metal Contained in Products Supplied (Table 4, Item 11)	1,747	1,852	2,018	2,057	1,889	1,741	1,546	1,408	1,401	1,280	1,422	1,455	1,422	1,456	1,486	1,518	1,571	1,598	1,557	1,704	1,716.9
(20)	Brass Mills - Net Metal Consumed (p 17)	1,712	1,609	1,637	1,571	1,547	1,455	1,368	1,285	1,298	1,272	1,260	1,297	1,273	1,215	1,258	1,279	1,286	1,284	1,309	1,295	r 1,283.7
(21)	Brass Mills - Metal Stocks & Other....	(46)	(21)	82	128	74	(7)	(94)	(344)	(260)	(261)	(276)	(252)	(224)	(232)	(263)	(299)	(284)	(368)	(426)	(311)	r (367.5)
(22)	Brass Mills - Metal Contained in Products Supplied (Table 4, Item 17).....	1,666	1,588	1,720	1,699	1,621	1,448	1,274	941	1,038	1,011	983	1,018	1,049	983	995	980	1,003	916	882	984	916.2
(23)	Foundries - Net Metal Consumed (page 17)	278	274	270	264	238	223	230	242	250	186	204	196	184	182	198	185	175	179	179	141	r 156.41
(24)	Foundries - Metal Stocks & Other....	(121)	(127)	(130)	(127)	(108)	(103)	(123)	(149)	(159)	(96)	(117)	(109)	(98)	(99)	(112)	(98)	(85)	(90)	(101)	(58)	r (71.45)
(25)	Foundries - Metal Contained in Products Supplied.....	158	148	140	138	130	120	108	93	91	90	87	87	87	83	86	87	91	90	78	83	84.96
(26)	Powder Plants - Net Metal Consumed ^(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
(27)	Powder Plants - Metal Stocks & Other ^(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
(28)	Powder Plants - Metal Contained in Products Supplied ^(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
(29)	Other Industries - Net Metal Consumed... Miscellaneous and Discrepancies	67	73	77	70	86	84	67	51	57	67	70	72	77	75	75	71	76	80	82	82	71.2

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised, NA - not available

(a) - Direct consumption only, not including consumption of copper in ingots from ingot makers.

(b) - Ingot makers consume refined copper, scrap copper and alloying metal and ship to foundries, brass mills, powder plants and other industries.

(c) - Starting with 1995 Powder Plants are combined with "Foundries."

Numbers may not sum due to rounding.

Table 3, Item 3.
Consumption of copper by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries

	Copper Content, thousands of short tons																				
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
Consumption of Copper by:																					
Wire Rod Mills																					
Refined.....	1,885	1,809	1,962	1,852	1,731	1,775	1,642	1,257	1,378	1,400	1,411	1,444	1,400	1,455	1,455	1,455	1,466	1,499	1,356	1,422	1,378
Scrap.....	30	28	29	29	30	28	26	24	25	25	20	20	21	20	22	23	23	23	24	23	23
Total.....	1,915	1,837	1,991	1,881	1,760	1,802	1,668	1,281	1,403	1,425	1,431	1,464	1,421	1,475	1,477	1,478	1,489	1,522	1,379	1,445	1,401
Brass Mills ^(a)																					
Refined.....	654	647	632	582	540	525	528	500	506	474	467	504	467	465	464	463	462	455	455	457	463
Scrap.....	779	717	748	739	763	710	651	605	608	615	611	604	647	608	663	688	697	697	713	699	693
Total.....	1,433	1,364	1,380	1,321	1,303	1,235	1,179	1,105	1,114	1,089	1,078	1,108	1,114	1,073	1,127	1,151	1,158	1,153	1,168	1,156	1,156
Ingot Makers ^(b)																					
Refined.....	5	5	5	5	5	5	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scrap.....	109	101	99	104	91	100	87	83	84	86	84	83	62	62	80	64	63	64	64	64	44
Total.....	114	106	104	109	96	105	90	83	84	86	84	83	62	62	80	64	63	64	64	64	44
Foundries and Other Industries ^(a,c)																					
Refined.....	62	63	63	67	51	51	55	60	63	62	62	65	65	62	77	67	68	72	72	38 r	47
Scrap.....	70	71	63	65	57	51	52	44	50	51	63	62	50	54	52	52	40	41	41	41	44
Total.....	132	134	127	132	109	103	107	104	113	113	125	127	115	116	129	119	109	113	113	79 r	91
Powder Plants ^(d)																					
Refined.....	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	0	0
Scrap.....	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	0	0
Total.....	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	0	0
Miscellaneous ^(d)																					
Refined.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scrap.....	68	73	77	70	86	89	74	56	57	67	70	72	77	75	75	71	76	80	82	82	71
Total.....	68	73	77	70	86	89	74	56	57	67	70	72	77	75	75	71	76	80	82	82	71
All Industries																					
Refined (Table 1, Item 16)	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,936	1,940	2,013	1,933	1,982	1,996	1,985	1,996	2,026	1,883	1,917 r	1,888
Scrap (Table 2, Item 10).....	1,056	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	820	893	897	898	905	922	908	875
TOTAL COPPER CONSUMED (Table 3, Item 3).....	3,662	3,514	3,678	3,512	3,354	3,334	3,118	2,628	2,771	2,780	2,788	2,854	2,789	2,802	2,889	2,882	2,894	2,932	2,806	2,826 r	2,763

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - Direct consumption only; not including consumption of copper in ingots from ingot makers.

(b) - Ingot makers consume refined copper, scrap copper and alloying metal and ship to foundries, brass mills, powder plants and other industries.

(c) - Starting with 1995 Powder Plants and Other Industries data are included with "Foundries and Other Industries."

(d) - Miscellaneous - reconciles discrepancies between USGS reports.

Numbers may not sum due to rounding.

Table 3, Item 8.

Consumption of alloying metal by brass mills, ingot makers, foundries and powder plants

Copper Content, thousands of short tons																							
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p		
Consumption of Alloying Metal by:																							
Brass Mills ^(a)																							
Zinc: Unalloyed & in Secondary Copper Alloys	263	231	241	236	230	209	179	170	176	173	174	154	150	134	125	125	125	125	136	133	r	122	
Lead: Unalloyed & in Secondary Copper Alloys	7	6	7	4	4	3	3	3	3	4	4	4	6	5	4	2	2	5	4	3	r	3	
Tin: Unalloyed & in Secondary Copper Alloys...	3	2	2	3	4	3	2	2	2	5	3	2	2	1	1	1	1	2	1	1	r	1	
Nickel: Unalloyed & in Secondary Copper Alloys	6	6	7	7	6	5	5	5	3	1	1	1	1	1	1	-	-	-	-	1	r	1	
Total	279	245	256	250	243	221	189	180	184	183	182	162	159	141	131	128	128	131	141	138	r	127	
Ingot Makers																							
Zinc: Unalloyed & in Secondary Copper Alloys	12	10	12	10	10	12	10	17	10	10	13	10	10	9	8	8	8	8	7	5	r	6	
Lead: Unalloyed & in Secondary Copper Alloys	7	6	6	6	6	7	9	9	7	8	6	6	6	5	5	4	4	5	3	3	r	3	
Tin: Unalloyed & in Secondary Copper Alloys	5	4	4	4	4	5	5	4	4	5	4	4	4	4	4	3	3	4	3	2	r	2	
Nickel: Unalloyed	—	—	0	0	0	—	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	r	0
Total	24	20	22	20	20	24	24	30	22	23	23	20	20	18	16	15	15	17	13	11	r	11	
Foundries and Other Industries ^(a)																							
Zinc: Unalloyed & in Secondary Copper Alloys	21	25	32	27	28	32	37	51	50	2	9	2	2	2	2	1	1	1	1	1	r	1	
Lead: Unalloyed & in Secondary Copper Alloys	1	2	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	r	0	
Tin: Unalloyed & in Secondary Copper Alloys	2	2	2	2	2	1	1	1	1	2	2	2	1	1	1	0	0	1	0	0	r	0	
Nickel: Unalloyed	—	—	0	0	0	—	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	r	0
Total	24	29	35	30	31	33	39	54	53	5	12	4	4	4	4	2	2	2	1	1	r	1	
Powder Plants ^(a)																							
Zinc: Slab																							
Zinc: in Scrap																							
Tin: Refined	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	
Total																							
All Industries																							
Zinc: Unalloyed & in Secondary Copper Alloys	296	266	284	273	268	253	226	238	236	186	196	166	162	145	134	134	133.7	133.4	143.3	139	r	129	
Lead: Unalloyed & in Secondary Copper Alloys	15	13	14	11	11	11	13	12	11	13	10	10	12	11	10	7	7	10	7	6	r	6	
Tin: Unalloyed & in Secondary Copper Alloys	10	8	8	9	9	9	8	8	7	11	9	8	7	6	6	4	5	6	4	4	r	4	
Nickel: Unalloyed & in Secondary Copper Alloys	6	6	7	7	6	5	5	5	5	2	1	1	2	1	1	0	0	0	0	1	r	1	
TOTAL ALLOYING METAL CONSUMED (Table 3, Item 8)	327	293	314	300	295	278	252	263	259	212	217	186	183	164	151	145	145	150	155	150	r	140	

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - Direct consumption only; not including consumption of alloying metal in ingots from ingot makers.

(b) - Starting with 1995 Powder Plants data are included with "Foundries and Other Industries."

Numbers may not sum due to rounding.



Table 3, Item 12.

Net consumption of metals by wire rod mills, brass mills, foundries, powder plants and other industries

Copper Content, thousands of short tons																						
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p	
Net Metal Consumed by:																						
Wire Rod Mills - Copper (Table 3, Item 13).....	1,915	1,837	1,991	1,881	1,760	1,802	1,668	1,281	1,403	1,425	1,431	1,464	1,421	1,475	1,477	1,478	1,489	1,522	1,379	1,445	1,401	
Brass Mills																						
Copper.....	1,433	1,364	1,380	1,321	1,303	1,235	1,179	1,105	1,114	1,089	1,078	1,108	1,114	1,073	1,127	1,151	1,158	1,153	1,168	1,156	1,156	
Alloy.....	279	245	256	250	243	221	189	180	184	183	182	162	159	141	131	128	128	131	141	138	r 127	
Ingot.....			2																			
Total (Table 3, Item 20).....	1,712	1,609	1,637	1,571	1,547	1,455	1,368	1,285	1,298	1,272	1,260	1,270	1,273	1,215	1,258	1,279	1,286	1,284	1,309	1,295	r 1,284	
Foundries ^(a)																						
Copper.....	132	134	128	132	110	108	107	104	113	113	125	127	115	116	129	119	109	113	113	79	r 91	
Alloy.....	24	28	35	30	31	33	39	54	53	5	12	4	4	4	4	2	2	2	1	1	r 1	
Ingot.....	122	112	109	102	97	90	84	85	83	68	68	65	65	62	65	65	65	65	65	65	61.18	r 64
Total (Table 3, Item 23).....	278	274	272	264	238	232	230	242	250	186	204	196	184	183	198	185	175	179	179	141	r 156	
Powder Plants ^(a)																						
Copper.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	
Alloy.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	
Ingot.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	
Total.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	
Other Industries ^(a)																						
Copper.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	
Ingot.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	
Total (Table 3, Item 29).....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	
Misc. and Discrepancies																						
Copper (Table 3, Item 29).....	67	73	77	70	86	84	74	56	57	67	70	72	77	75	75	71	76	80	82	82	r 71	
Ingot.....																						
All Industries																						
Copper.....	3,547	3,408	3,575	3,403	3,258	3,229	3,029	2,545	2,687	2,694	2,703	2,771	2,727	2,740	2,808	2,819	2,832	2,868	2,742	2,762	r 2,720	
Alloy.....	303	273	291	280	274	254	228	233	237	188	193	166	163	146	135	130	130	133	142	140	r 129	
Ingot (Table 3, Item 10) ^(b)	122	112	109	102	97	90	84	85	83	68	68	65	65	62	65	65	65	65	65	65	61	r 64
NET METAL CONSUMED (Table 3, Item 12).....	3,972	3,793	3,974	3,785	3,629	3,573	3,341	2,863	3,007	2,950	2,965	3,002	2,956	2,948	3,008	3,013	3,027	3,066	2,949	2,963	r 2,912	

Source: U.S. Department of the Interior, U.S. Geological Survey, National Minerals Information Center

p - preliminary, r - revised

(a) - Starting with 1995 Powder Plants and Other Industries data are included with "Foundries."

(b) - Total consumption of ingot shown here is less than the consumption of metal by ingot makers shown in the details of Table 3, Item 3, and Table 3, Item 8. The difference, shown as Ingot Stocks & Other in Table 3, is partially melting and other losses in the making of ingot.

Numbers may not sum due to rounding.

Table 4.
Supply of wire mill, brass mill, foundry and powder products and their consumption in the end-use markets

	Metal Content, millions of pounds																				
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
(1) Bare Wire.....	290	270	260	255	225	200	175	170	165	160	166	167	150	170	180	184	190	194	189	195	197
(2) Telecommunications Cable.....	384	395	366	375	359	292	225	177	168	160	163	163	155	156	162	171	177	178	165	165	175
(3) Electronic Wire and Cable.....	178	238	255	256	265	290	210	155	150	145	148	151	148	147	149	154	161	170	176	186	188
(4) Building Wire.....	1,270	1,425	1,664	1,700	1,533	1,426	1,259	1,177	1,059	1,005	1,020	1,035	1,031	1,052	1,073	1,100	1,131	1,179	1,262	1,489	1,429
(5) Magnet Wire.....	573	561	570	532	536	493	443	400	380	360	367	380	361	370	384	405	420	421	391	391	416
(6) Power Cable.....	288	294	300	372	315	249	326	352	335	315	326	335	328	328	307	290	294	302	268	276	285
(7) Apparatus Wire and Cordage.....	185	193	140	140	89	86	124	102	100	95	97	98	95	96	101	106	112	113	105	109	112
(8) Automotive Wire and Cable (except Magnet)	407	411	410	403	400	398	330	283	406	443	518	540	538	554	576	589	615	599	520	556	590
(9) Other Insulated Wire and Cable.....	80	82	85	93	119	90	54	43	40	38	39	40	38	38	38	39	40	41	40	41	42
(10) Total Insulated Wire and Cable.....	3,365	3,599	3,790	3,871	3,616	3,324	2,972	2,690	2,638	2,561	2,678	2,742	2,694	2,741	2,791	2,852	2,951	3,003	2,926	3,212	3,237
(11) Total Wire Mill Products ^(a)	3,655	3,869	4,050	4,126	3,841	3,524	3,147	2,860	2,803	2,721	2,844	2,909	2,844	2,911	2,971	3,036	3,141	3,196	3,114	3,407	3,434
(12) Strip, Sheet, Plate and Foil.....	1,019	957	1,068	1,035	1,067	999	928.3	692	794	740	738	816	761	790	788	753	753	676	658	728	722
(13) Mechanical Wire ^(b)	78	72	80	75	72	48	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
(14) Rod and Bar.....	1,038	965	1,059	1,032	1,022	879	793	562	672	675	636	641	702	605	625	639	662	600	562	642	585
(15) Tube and Pipe ^(c)	1,197	1,182	1,233	1,256	1,080	953	812	619	607	608	574	579	567	568	578	568	591	555	545	598	526
(16) Total Brass Mill Products (page 19).....	3,332	3,177	3,439	3,397	3,241	2,879	2,533	1,873	2,073	2,023	1,948	2,035	2,030	1,963	1,991	1,961	2,005	1,831	1,765	1,968	1,832
(17) Total Foundry Products ^(d)	270	250	230	225	215	200	180	160	150	145	140	140	138	130	136	138	145	142	128	136	141
(18) Total Powder Products ^(d)	45	45	50	50	45	40	35	27	32	34	34	34	35	36	36	36	37	37	28	30	29
(19) Domestic Products - Total.....	7,302	7,341	7,769	7,799	7,342	6,643	5,895	4,919	5,058	4,923	4,966	5,118	5,047	5,040	5,134	5,171	5,328	5,207	5,035	5,541	5,436
(20) Net Imports of Mill Products (page 20).....	225	246	297	224	295	288	261	166	118	173	226	166	280	287	331	391	445	510	602	707	r 1,095
(21) Mill Products to Domestic Market*.....	7,527	7,587	8,066	8,022	7,637	6,931	6,156	5,085	5,176	5,096	5,191	5,284	5,326	5,327	5,465	5,562	5,773	5,717	5,636	6,249	r 6,531
(22) Building Construction.....	3,508	3,620	4,035	4,028	3,697	3,365	3,051	2,478	2,318	2,271	2,299	2,364	2,401	2,406	2,458	2,525	2,487	2,483	2,570	2,907	r 2,919
(23) Electrical and Electronic Products.....	1,598	1,582	1,569	1,525	1,533	1,400	1,274	1,018	1,059	1,037	1,024	966	976	953	1,033	1,038	1,156	1,179	1,181	1,286	r 1,436
(24) Industrial Machinery and Equipment.....	729	697	682	701	682	575	494	432	430	377	358	378	383	359	351	352	395	397	377	412	r 451
(25) Transportation Equipment.....	916	915	991	974	947	854	702	621	768	819	915	980	983	987	992	1,068	1,134	1,084	920	1,009	r 1,065
(26) Consumer and General Products.....	776	773	836	794	778	737	634	536	601	592	596	597	584	622	630	580	601	574	589	635	r 661

Sources: Copper Development Association; U.S. Department of Commerce, Bureau of the Census; Metal Powder Industries Federation; and U.S. International Trade Administration.

Note: Numbers may not sum due to rounding.

p - preliminary, r - revised

(a) - Copper content.

(b) - Rod and bar and mechanical wire data combined starting 2008.

(c) - Commercial tube and plumbing tube data combined.

(d) - Powder product shipments reference only structural metallurgy products and DO NOT include powder used for plating, pigments, chemicals and other miscellaneous uses.

* Markets include:

Building Construction - Building Wire; Plumbing & Heating; Air Conditioning & Commercial Refrigeration; Builders Hardware; Architectural

Electrical and Electronic Products - Power Utilities; Telecommunications; Business Electronics; Lighting & Wiring Devices

Industrial Machinery and Equipmen - In-Plant Equipment; Industrial Valves & Fittings; Non-Electrical Instruments; Off-Highway Vehicles; Heat Exchangers

Transportation Equipment - Automobile; Truck & Bus; Railroad; Marine; Aircraft & Aerospace

Consumer and General Products - Appliances; Cord Sets; Military & Commercial Ordnance; Consumer Electronics; Fasteners & Closures; Coinage; Utensils & Cultery; Miscellaneous

Table 4, Item 16.

Supply of brass mill products in the United States

Metal Content, millions of pounds																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p
Strip, Sheet, Plate and Foil																					
Copper.....	363	341	390	391	394	378	343	224	240	236	234	258	258	287	284	261	255	233	240	245	274
Alloy.....	655	616	677	644	673	621	586	468	554	504	504	558	504	504	504	493	498	443	418	483	448
Total.....	1,019	957	1,068	1,035	1,067	999	928	692	794	740	738	816	761	790	788	753	753	676	658	728	722
Mechanical Wire																					
Copper.....	16	16	19	18	14	11	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Alloy.....	62	56	61	57	58	37	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total.....	78	72	80	75	72	48	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Rod and Bar^(a)																					
Copper.....	177	170	205	212	211	184	173	133	158	167	151	163	180	143	159	168	183	171	168	176	170
Alloy.....	861	795	854	820	812	695	620	428	515	508	485	478	522	462	466	471	479	430	394	466	415
Total.....	1,038	965	1,059	1,032	1,022	879	793	562	672	675	636	641	702	605	625	639	662	600	562	642	585
Tube and Pipe^(b)																					
Copper.....	1,178	1,168	1,218	1,243	1,066	940	800	610	596	597	565	570	559	562	572	562	584	549	539	592	519
Alloy.....	19	14	15	13	14	13	12	9	11	11	9	8	7	6	6	6	7	6	6	6	7
Total.....	1,197	1,182	1,233	1,256	1,080	953	812	619	607	608	574	579	567	568	578	568	591	555	545	598	526
All Mill Products																					
Copper.....	1,735	1,695	1,832	1,863	1,685	1,512	1,315	968	993	1,000	951	991	997	991	1,015	991	1,021	952	947	1,014	962
Alloy.....	1,597	1,482	1,607	1,534	1,556	1,367	1,218	906	1,080	1,023	997	1,044	1,033	973	976	970	984	879	817	955	870
TOTAL BRASS MILL PRODUCTS	3,332	3,177	3,439	3,397	3,241	2,879	2,533	1,873	2,073	2,023	1,948	2,035	2,030	1,963	1,991	1,961	2,005	1,831	1,765	1,968	1,832

Sources: Copper Development Association
(a) - Copper and alloy rod and bar and mechanical wire data combined starting 2008.
(b) - Commercial tube and plumbing tube data combined.
Numbers may not sum due to rounding.

Table 4, Item 16a.

Supply of brass mill products in selected countries

Metal Content, millions of pounds																					
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p
Benelux.....	292	277	266	266	266	277	278	263	273	276	281	276	274	272	263	290	279	238	214	273	282
France.....	369	263	227	201	498	421	382	254	274	251	251	261	263	266	270	282	287	291	268	287	294
Germany.....	2,412	2,328	2,561	2,510	2,585	4,096	3,909	2,982	3,650	3,597	3,306	3,391	3,526	3,590	3,753	3,765	3,640	2,417	1,526	1,566	1,594
Italy.....	1,980	1,957	1,682	1,369	2,020	1,836	1,584	862	1,137	1,106	1,124	1,378	1,368	1,381	1,393	1,478	1,567	1,499	1,451	1,800	1,867
Japan.....	2,114	2,175	2,290	2,075	2,296	2,200	1,497	1,436	1,756	1,721	1,686	1,701	1,792	1,681	1,649	1,598	1,728	1,597	1,478	1,637	1,653
Mexico.....	307	311	319	276	229	258	232	302	251	327	277	259	262	266	283	286	280	297	273	253	261
Scandinavia.....	445	442	469	464	478	381	437	349	383	393	391	381	408	393	395	418	438	386	439	413	425
Spain.....	250	213	166	194	185	194	198	204	225	215	258	178	217	216	216	212	219	195	195	176	158
Turkey.....	97	88	88	144	160	141	121	46	65	65	66	70	70	70	70	65	65	65	65	65	69
United Kingdom.....	162	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
United States.....	3,332	3,177	3,439	3,397	3,241	2,896	2,533	1,873	2,073	2,023	1,948	2,035	2,030	1,963	1,991	1,961	2,005	1,831	1,765	1,968	1,832

Sources: International Copper Study Group
p - preliminary, r - revised, NA - not available
Numbers may not sum due to rounding.

Table 4, Item 20.

Imports and exports of wire mill, brass mill and powder products

	Metal Content, millions of pounds																				
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021r	2022p
Imports of:																					
Bare Wire (including Stranded).....	47	50	42	56	39	38	43	29	36	40	44	55	50	30	31	27	32	47	48	49	r 61
Insulated Wire and Cable.....	297	314	334	405	418	417	362	301	334	380	421	432	478	487	487	542	550	540	566	639	r 874
Total Wire Mill Products⁽¹⁾.....	344	364	376	461	457	455	405	330	370	420	464	487	529	517	517	569	582	587	614	687	r 935
Copper-Strip, Sheet, Plate and Foil.....	129	123	145	117	126	89	91	66	88	90	88	70	77	74	72	82	96	101	85	106	r 140
Rod and Bar.....	40	37	54	53	54	69	52	33	46	51	50	51	54	43	35	38	41	37	32	40	r 53
Tube and Pipe.....	162	172	202	202	281	256	260	198	167	136	135	143	161	148	150	155	159	161	184	190	r 246
Alloy-Strip, Sheet, Plate and Foil.....	116	93	119	95	92	74	61	43	65	61	65	75	81	81	83	88	96	76	74	111	r 136
Mechanical Wire.....	35	37	41	35	36	33	36	22	35	33	41	37	39	43	37	40	41	37	30	39	r 40
Rod and Bar.....	65	71	85	65	68	57	70	43	70	79	84	86	83	73	56	69	69	63	52	63	r 66
Tube and Pipe.....	115	110	131	120	123	108	104	75	92	101	93	94	103	98	99	98	113	108	98	118	r 129
Total Brass Mill Products.....	662	645	777	687	779	688	674	480	564	551	556	555	599	560	532	570	616	583	556	666	r 809
Total Powder Products.....	6	8	6	8	10	10	8	7	9	9	8	8	9	8	8	8	8	7	5	6	r 5
TOTAL IMPORTS.....	1,012	1,016	1,160	1,156	1,246	1,153	1,086	816	943	980	1,028	1,050	1,136	1,085	1,058	1,148	1,206	1,177	1,175	1,359	r 1,749
Exports of:																					
Bare Wire (including Stranded).....	104	82	99	107	102	103	88	66	88	90	113	157	135	114	97	94	105	89	67	76	r 73
Insulated Wire and Cable.....	376	368	386	401	432	382	400	336	458	444	421	434	432	408	355	373	373	331	276	310	r 319
Total Wire Mill Products⁽¹⁾.....	481	450	485	508	534	485	488	402	546	534	591	567	523	452	466	477	420	344	386	393	
Copper-Strip, Sheet, Plate and Foil.....	32	33	38	34	36	32	32	25	37	37	37	36	38	36	38	41	41	36	35	45	r 45
Rod and Bar.....	16	9	21	33	37	40	44	26	23	31	32	29	26	26	28	27	22	19	21	22	21
Tube and Pipe.....	72	73	74	75	76	77	48	51	40	48	41	41	35	32	31	32	41	35	34	44	50
Alloy-Strip, Sheet, Plate and Foil.....	52	63	72	96	81	72	71	58	65	56	62	75	75	59	60	68	59	40	31	36	r 44
Mechanical Wire.....	17	16	20	21	29	34	33	23	27	25	24	24	21	25	23	21	16	13	9	14	r 12
Rod and Bar.....	71	77	88	95	95	64	50	22	27	25	23	39	41	43	44	50	52	51	49	60	r 51
Tube and Pipe.....	34	37	43	44	39	35	40	29	36	33	31	32	35	37	36	35	37	40	39	29	23
Total Brass Mill Products.....	293	307	356	397	391	355	318	233	255	255	249	275	272	258	259	274	267	234	218	251	r 246
Total Powder Products.....	14	13	21	27	26	25	19	15	24	18	18	18	18	18	16	17	16	13	12	14	r 15
TOTAL EXPORTS.....	787	770	862	932	951	865	825	650	825	807	802	884	857	798	727	757	761	667	574	651	r 654
NET IMPORTS (Table 4, Item 20)	225	246	297	224	295	288	261	166	118	173	226	166	280	287	331	391	445	510	602	707	r 1,095

Sources: U.S. International Trade Administration

p - preliminary, r - revised

(1) - In previous additions, wire rod exports were included in the table. Starting with 1999, net wire rod imports are shown as line 16 on table 3, page 14. Appropriate adjustments have been made for all years.

Note: Changes to the trade dataset are made from time to time as the USITC adds, collapses, or sometimes stops collecting data for certain Harmonized Tariff codes.

Numbers may not sum due to rounding.



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