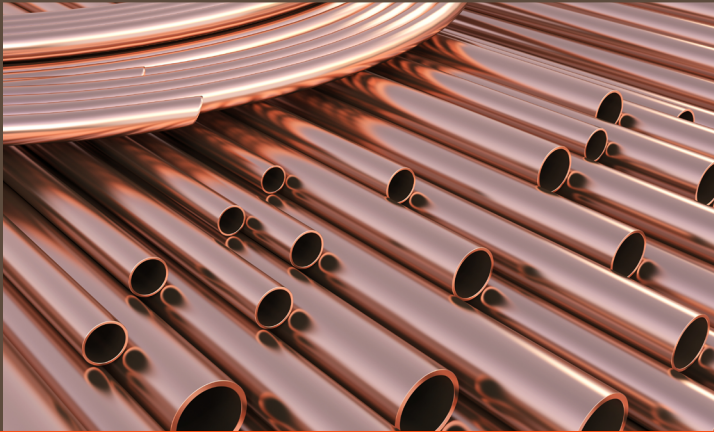




Copper Development
Association Inc.



**COPPER SUPPLY
& CONSUMPTION
2003 — 2023**



COPPER.ORG

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 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 2023 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 2003 through 2023, will be found. Most data for 2023 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.

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.

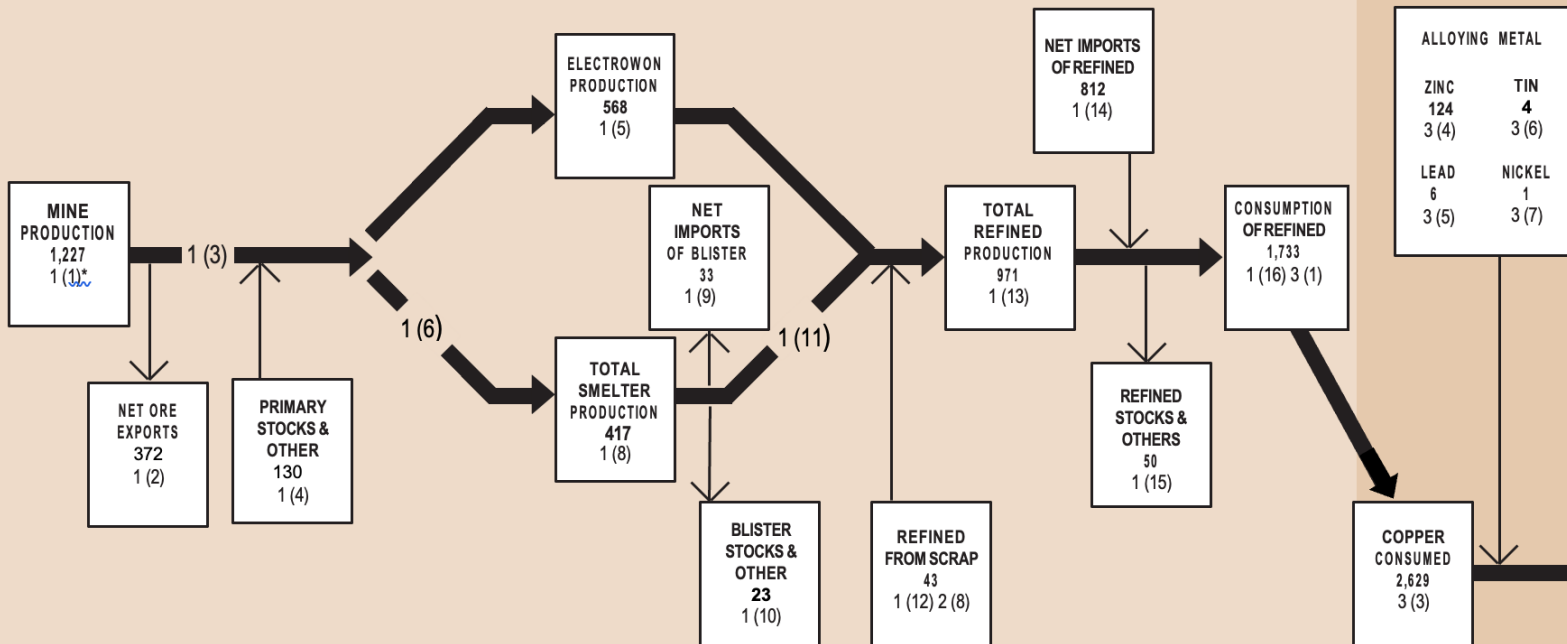
The arrangement of the data in the report can be illustrated with an example. Consider Mine Production, the upper left-hand box in the flow sheet on **page 4**. As shown in the box, mine production of copper in the United States totaled 1,227 thousand tons in 2023. Beneath this figure a number appears referring to **Table 1**, abbreviated 1 (1). This means that in **Table 1**, on Line (1), mine production is shown for the full period 2003 through 2023. 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 2003 through 2023. 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



ALLOYING METAL	
ZINC	TIN
124	4
3 (4)	3 (6)
LEAD	NICKEL
6	1
3 (5)	3 (7)

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 2003 through 2023 appear.

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

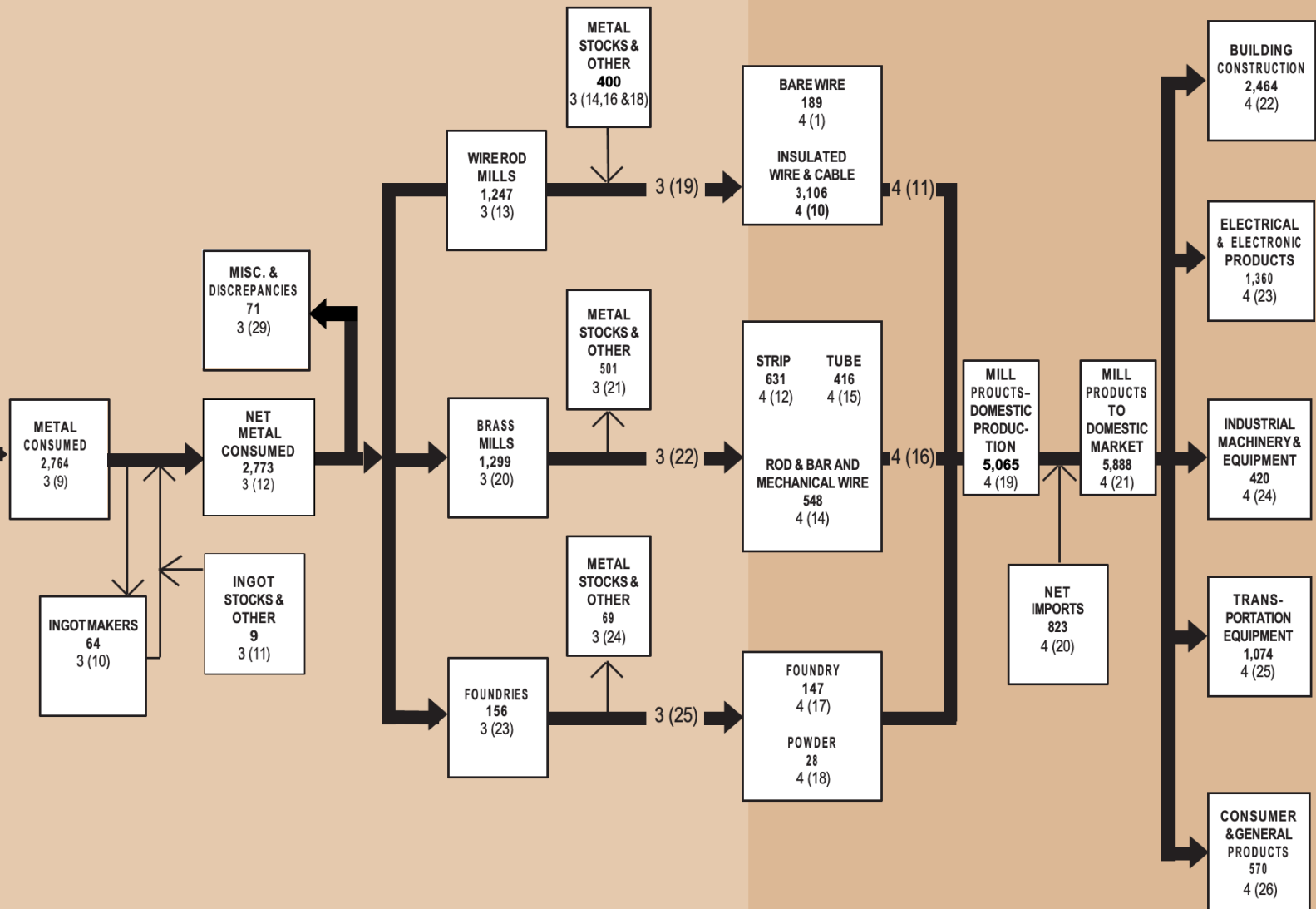


Table 1.**Supply of primary copper from mine to consumption by wire rod mills,
brass mills, ingot makers, foundries, powder plants and other industries**

	Copper Content, thousands of short tons																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p	
(1) Mine Production (page 6)	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	1,359	1,227	
(2) Net Ore/Conc./Matte Imports (page 8) ^(a)	4	(24)	(195)	(222)	(214)	(381)	(166)	(150)	(281)	(325)	(379)	(452)	(432)	(365)	(246)	(243)	(370)	(420)	(371)	(376)	(372)	
(3) Total Primary	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	983	855	
(4) Primary Stocks and Other	12	(10)	126	39	162	127	46	62	120	89	96	104	110	87	(10)	74	77	58	32	19	r	130
(5) Electrowon Production...	652	644	611	584	556	560	525	474	493	519	524	567	648	678	614	586	581	616	620	612	r	568
(6) Smelter Production from Primary	594	597	577	552	680	630	658	662	593	535	569	575	581	621	518	591	511	347	397	390	r	417
(7) Smelter Production from Scrap	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(8) Total Smelter Production (page 8)	594	597	577	552	680	630	658	663	593	535	569	575	581	621	518	591	511	347	397	390	r	417
(9) Net Imports of Blister/Anode (page 8)	144	115	100	167	152	110	49	10	(15)	(15)	(11)	(12)	(11)	(10)	(10)	(8)	(7)	(26)	(13)	(26)	(13)	(33)
(10) Blister/Anode Stocks and Other (page 9)	(9)	27	45	24	23	51	(9)	22	23	21	14	28	(16)	12	24	12	1	7	77	22	r	(23)
(11) Refined Production from Blister/Anode	729	740	721	744	855	791	699	694	601	541	571	591	553	623	532	593	505	347	448	399	r	360
(12) Refined Production from Scrap	59	56	52	49	51	60	51	42	41	44	52	51	54	51	44	45	49	48	54	44	44	43
(13) Total Refined Production (page 9)	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	1,055	r	971
(14) Net Imports of Refined (page 9)	622	636	1,023	1,117	861	776	643	581	734	519	685	543	661	633	792	648	593	700	961	776	776	812
(15) Refined Stocks and Other (page 10)	462	587	99	(168)	33	41	(101)	157	68	317	182	181	66	12	2	123	299	172	(164)	57	r	(50)
(16) Consumption of Refined (page 10)	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	1,733	

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**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Arizona	817	797	761	785	806	923	784	775	828	843	876	980	1,086	1,068	957	883	947	970	956	942	874
Other States ^(a)	413	478	496	535	482	521	518	448	399	446	499	510	465	508	431	464	439	355	400	417	353
TOTAL	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	1,359	1,227

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 ⁽¹⁾**

Copper Content, thousands of short tons																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Australasia																					
Australia	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	911	r 877
Papua New Guinea	216	191	213	214	187	176	184	176	144	138	116	84	53	88	116	106	116	91	72	84	r 96
Total Australasia.	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	994	r 973
Americas																					
Argentina	219	194	206	199	199	173	158	155	129	150	121	113	68	90	37	19	0	-	-	-	-
Brazil	30	109	144	158	227	243	228	236	238	244	299	324	382	369	424	425	398	402	372	331	419
Canada	615	620	656	665	657	669	540	579	624	638	697	767	769	780	668	598	631	648	604	573	551
Chile	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	5,876	r 5,788
Ecuador	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	132
Mexico	394	447	473	368	372	272	263	298	485	551	531	568	655	845	818	828	847	808	809	831	r 801
Panama	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	386
Peru	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	2,695	r 3,037
United States..	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	1,356	r 1,389
Total Americas.	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	12,180.2	r 12,486
Europe																					
Bulgaria..	103	104	104	122	121	116	116	116	126	119	121	121	121	121	121	121	121	121	121	116	r 116
Finland..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30
Poland.	546	585	564	548	498	473	484	469	470	471	473	464	469	468	462	442	440	433	431	433	436
Portugal..	85	105	99	87	99	96	82	88	81	84	83	90	84	75	54	46	35	42	35	42	35
Scandinavia	108	108	112	110	84	78	76	101	107	119	134	135	129	139	174	169	151	149	132	128	104
Serbia....	23	13	14	13	18	21	21	0	—	—	—	—	—	—	48	50	51	58	133	225	263
Spain....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13
Total Europe.	865	916	893	880	821	786	793	767	791	790	812	803	810	813	880	836	808	796	860	980.1	r 1,105
Asia																					
Russian Federation	694	694	705	744	761	777	745	775	799	794	799	816	769	755	796	852	871	971	989	986	954
Armenia	—	—	—	—	—	—	—	—	—	—	—	56	91	113	124	84	116	109	108	89	84
China....	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	2,023	r 1,929
India	32	33	25	32	36	31	33	36	40	33	43	32	33	34	35	38	31	25	29	26	r 28
Indonesia	1,106	929	1,174	900	870	717	1,098	962	599	439	561	418	638	802	686	718	398	557	829	1,064	1,030
Iran..	162	161	181	238	269	273	289	283	334	271	246	239	272	319	333	349	344	346	374	379	359
Kazakhstan.	535	509	443	479	448	465	448	419	479	460	493	484	489	535	535	699	767	774	702	836	868
Laos	—	—	—	—	—	—	—	—	—	—	171	176	185	185	169	167	156	97	44	41	56
Mongolia (2)	—	—	—	—	146	143	142	139	137	137	219	295	366	387	343	336	322	321	335	295	345
Philippines..	22	18	18	19	24	24	52	65	70	72	102	99	93	92	75	72	78	67	56	66	68
Serbia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	324
Turkiye	—	—	—	—	—	—	—	—	—	—	—	134	119	110	91	88	81	118	121	133	r 140
Total Asia..	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	6,263	r 6,126
Africa																					
Botswana	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	38
Congo DR	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	2,529	3,017
Namibia..	18	15	12	7	11	10	—	—	4	6	5	6	15	18	17	7	17	12	1	0	r 0
South Africa	99	96	98	99	107	120	119	113	127	89	84	87	85	72	72	53	58	32	56	55	55
Zambia	384	443	477	523	561	612	614	756	864	766	838	776	791	841	879	941	879	940	928	852	r 793
Total Africa	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	3,474	r 3,945
Other(3)..	320	520	548	600	476	509	741	686	720	856	828	716	673	675	881	813	995	1,072	1,109	319	r 186
TOTAL WORLD.	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	24,210	r 24,820

Sources: International Copper Study Group

p - preliminary r - revised

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

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

(3) 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																				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Imports (Ore, Concentrate, Matte, Ash)	32	27	2	2	3	2	0	2	17	7	5	0	0	0	16	35	30	2	12	13	4
Exports (Ore, Concentrate, Matte, Ash)	(28)	(51)	(197)	(224)	(217)	(383)	(166)	(151)	(278)	(332)	(384)	(452)	(432)	(365)	(261)	(279)	(400)	(422)	(384)	(389)	r (376)
Net Imports (Ore, Concentrate, Matte, Ash)(a)	4	(24)	(195)	(222)	(214)	(381)	(166)	(150)	(261)	(325)	(379)	(452)	(432)	(365)	(246)	(243)	(370)	(420)	(371)	(376)	r (372)

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																				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Smelter Production - Domestic Ore (Table 1, Item 6)...	594	597	577	552	680	630	658	662	593	535	569	575	581	621	518	591	511	347	397	390	r 417
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)
Smelter Production - Scrap (Table 1, Item 7)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL SMELTER PRODUCTION	594	597	577	552	680	630	658	662	593	535	569	575	581	621	518	591	511	347	397	390	r 417

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																				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Imports of Blister/Anode Copper.	173	166	146	188	169	136	75	29	1	1	1	1	0	0	1	0	0	0	0	0	0
Exports of Blister/Anode Copper.	(29)	(51)	(46)	(21)	(17)	(26)	(26)	(19)	(16)	(15)	(12)	(13)	(12)	(10)	(11)	(10)	(8)	(7)	(27)	(13)	(33)
Net Imports of Blister/Anode Copper	144	115	100	167	152	110	49	10	(15)	(15)	(11)	(12)	(11)	(10)	(10)	(10)	(8)	(7)	(26)	(13)	(33)

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																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
End-of-Year Blister/Anode Copper Stocks..	63	57	49	21	29	27	17	29	14	14	14	11	15	16	29	10	18	10	18	15	12
Net Change(a)..	14	(6)	(8)	(28)	8	(2)	(10)	12	(15)	(1)	0	(3)	4	1	(2)	(4)	8	(8)	7	7	4
Apparent Change(b)	9	(27)	(45)	(24)	(23)	(51)	9	(22)	(23)	(21)	(14)	(28)	16	(12)	(24)	(12)	(1)	(7)	(77)	(22)	r 23

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																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Refined Production - Primary Sources (Table 1, Items 1,2,4,9 and 10).	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	1,011	r 928
Refined Production - Scrap at Smelters (Table 1, Item 7)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refined Production - Scrap at Refiners (Table 1, Item 12)	59	56	52	49	51	60	51	42	41	44	52	51	54	51	44	45	49	48	54	44	43
TOTAL REFINED PRODUCTION..	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	1,055	r 971

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																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
General Imports of Refined Copper 1	758	776	1,077	1,184	917	798	732	667	739	694	809	683	756	780	896	858	731	745	1,013	807	850
Total Exports of Refined Copper	(136)	(140)	(54)	(67)	(56)	(22)	(89)	(86)	(5)	(175)	(125)	(140)	(95)	(148)	(104)	(209)	(138)	(45)	(52)	(30)	(38)
Net Imports of Refined Copper	622	636	1,023	1,117	861	776	643	581	734	519	685	543	661	633	792	648	593	700	961	776	812

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																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
End-of-year Refined Copper Stocks at:																					
Refineries.....	13	11	9	31	24	17	26	11	9	14	17	11	13	5	6	4	8	4	6	10	8
Wire Rod Mills.....	33	22	22	24	23	25	28	22	26	31	36	46	40	29	31	24	22	12	13	20	19
Brass Mills..	22	24	27	38	11	9	8	7	8	7	7	7	8	8	9	9	8	9	10	12	11
Other Processors	5	4	6	6	6	4	5	5	5	5	5	5	8	8	6	6	8	8	8	7	7
Government...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Commodity Exchange..	281	48	7	34	15	36	99	65	88	71	17	27	70	88	211	110	38	77	70	35	19
London Metal Exchange ..	369	39	1	83	67	117	312	313	315	132	204	112	92	109	30	115	39	20	22	8	77
End-of Year Total...	723	148	73	216	146	207	478	423	451	260	285	208	232	248	292	268	122	130	130	91	140
Net Change (a)...	(413)	(575)	(75)	144	(70)	61	271	(56)	29	(191)	25	(77)	24	14	46	(24)	(146)	8	(1)	(38)	49
Apparent Change (b)	(462)	(587)	(99)	188	(33)	(41)	101	(157)	(68)	(317)	(182)	(181)	(66)	(12)	(2)	(123)	(299)	(172)	164	(57)	50

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.

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																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Consumption of Refined Copper by:																					
Wire Rod Mills	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	1,224
Brass Mills.	647	632	582	540	525	528	500	506	474	467	504	467	465	464	463	462	455	455	457	463	462
Ingot Makers..	5	5	5	5	5	3	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Foundries and Other Industries (a)...	63	63	67	51	51	55	60	63	62	62	65	65	62	77	67	68	72	72	38	47	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	2,524	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	1,733

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																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p	
(1) Receipts of Domestic Scrap	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	1,725	r	1,481
(2) Net Scrap Imports (page 12)(a)	(538)	(549)	(512)	(628)	(653)	(883)	(850)	(1,033)	(1,246)	(1,202)	(1,158)	(1,024)	(930)	(901)	(925)	(832)	(658)	(730)	(854)	(880)	(617)	(617)
(3) Scrap Stocks (page 12)	3	(11)	(9)	(2)	20	0	5	31	0	0	1	(2)	0	(54)	(15)	(0)	(0)	24	27	2	r	2
(4) Recovery from Copper-Base Scrap (page 13)	977	996	990	992	937	873	803	808	818	821	821	830	800	868	870	868	874	890	863	848		867
(5) Recovery from Other Scrap (page 13)	64	68	61	77	83	67	51	57	67	70	71	76	74	74	76	76	81	60	62	74	r	72
(6) Total Scrap Recovery (page 13)..	1,041	1,064	1,051	1,069	1,020	940	854	865	885	891	892	906	873	943	946	944	954	950	925	922	r	939
(7) Smelter Production from Scrap	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(8) Refined Production from Scrap	(59)	(56)	(52)	(49)	(51)	(60)	(51)	(42)	(41)	(44)	(52)	(51)	(54)	(51)	(44)	(45)	(49)	(48)	(54)	(44)	(43)	(43)
(9) Non-Reported Scrap & Other.	8	8	8	8	9	10	9	0	0	0	0	1	1	1	(5)	(0)	(0)	20	37	0	r	0
(10) Consumption of Scrap (page 13)	990	1,016	1,006	1,027	978	890	812	823	843	847	841	856	820	893	897	898	905	922	908	878	r	896

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																				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Imports of Copper-Base Scrap	78	88	100	101	124	117	79	106	121	115	117	129	123	138	182	174	152	126	157	142	131
Exports of Copper-Base Scrap	(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)	(1,022)	(747)
Net Imports of Copper-Base Scrap^(a)	(538)	(549)	(512)	(628)	(653)	(883)	(850)	(1,033)	(1,246)	(1,202)	(1,158)	(1,024)	(930)	(901)	(925)	(832)	(658)	(730)	(854)	(880)	(617)

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																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p	
Scrap Copper-Base Stocks at:																						
Brass Mills.	40	51	56	58	40	40	36	1	1	2	4	5	5	2	2	2	2	2	2	2	r	2
Secondary Smelters & Primary Producers	7	7	12	12	10	11	8	12	10	11	9	9	9	66	81	81	81	58	33	30	r	28
Foundries	5	4	4	4	4	3	5	5	7	5	5	5	5	5	5	5	5	4	2	3	r	2
Other Processors.																						
End-of Year Total	52	63	72	74	54	54	49	18	18	18	17	19	19	73	88	88	88	64	36	34	r	32
Net Change(a)	(3)	11	9	2	(20)	(0)	(5)	(31)	(0)	(0)	(1)	2	(0)	54	15	0	0	(24)	(27)	(2)	r	(2)

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 stocks as reported. The sign of the data (+) or () is opposite that shown in Table 2.

Numbers may not sum due to rounding.

Table 2, Item 6.**Recovery of copper from scrap**

Copper Content, thousands of short tons																						
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p	
Copper Recovered from Copper-Base Scrap.....																						
New Scrap...	773	810	805	851	797	726	670	675	681	669	657	685	662	725	743	741	741	756	713	707	731	
Old Scrap...	204	186	185	141	140	147	132	133	137	152	164	145	138	143	127	127	133	133	150	141	136	
Total (Table 2, Item 4)	977	996	990	992	937	873	803	808	818	821	821	830	800	868	870	868	874	890	863	848	867	
Copper Recovered from Scrap other than Copper-Base																						
New Scrap...	40	43	44	52	50	42	32	33	35	36	37	40	40	41	42	42	45	35	39	40	r	39
Old Scrap...	24	25	17	25	33	26	19	24	32	34	34	36	33	33	34	34	36	25	22	34	r	33
Total (Table 2, Item 5)....	64	68	61	77	83	67	51	57	67	70	71	76	74	74	76	76	81	60	62	74	r	72
Copper Recovered from All Scrap																						
New Scrap...	813	853	848	902	846	768	703	708	716	706	694	726	702	766	786	783	786	792	752	746	r	770
Old Scrap...	228	211	202	166	173	172	151	158	169	186	198	181	171	176	161	161	169	158	172	175	r	169
Total Copper Recovered (Table 2, Item 6)	1,041	1,064	1,051	1,069	1,020	940	854	865	885	891	892	906	873	943	946	944	954	950	925	922	r	939

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																						
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p	
Consumption of Copper Scrap by:																						
Wire Rod Mills...	28	29	29	30	28	26	24	25	25	20	20	21	20	22	23	23	23	24	23	23	24	
Brass Mills....	717	748	739	763	710	651	605	608	615	611	604	647	608	663	688	697	697	713	699	693	714	
Ingot Makers....	101	99	104	91	100	87	83	84	86	84	83	62	62	80	63	63	64	64	64	44	44	
Foundries.....	80	72	74	66	57	59	49	50	51	63	62	50	54	52	52	40	41	41	41	44	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..	64	68	61	77	83	67	51	57	67	70	72	77	72	76	76	76	80	80	62	62	62	
Miscellaneous Adjustments	—	—	—	—	—	—	—	—	—	—	—	—	3	3	(4)	0	5	2	20	12	r	9
TOTAL COPPER CONSUMED....	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	820	893	897	898	905	922	908	878	r	896

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																				
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
(1)	Consumption of Refined Copper (Table 1, Item 16)	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	1,733
(2)	Consumption of Copper in Scrap (Table 2, Item 10)	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	820	893	897	898	905	922	908	878	r 896
(3)	Total Copper Consumed (page 15)	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	2,766	r 2,629
(4)	Consumption of Zinc...	266	284	273	268	253	226	238	236	186	196	166	162	145	134	134	134	133	143	139	129	124
(5)	Consumption of Lead...	13	14	11	11	11	13	12	11	13	10	10	12	11	10	7	7	10	7	6	6	6
(6)	Consumption of Tin...	8	8	9	9	9	8	8	7	11	9	8	7	6	6	5	5	6	4	4	4	4
(7)	Consumption of Nickel...	6	7	7	6	6	5	5	5	2	1	1	2	1	1	0	0	0	0	1	1	1
(8)	Total Alloying Metal Consumed (page 16)	293	314	300	295	278	252	263	259	212	217	186	183	164	151	145	145	150	155	150	140	135
(9)	Total Metal Consumed	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	2,906	r 2,764
(10)	Ingot Consumed (page 17) ^(a)	112	109	102	97	90	84	85	83	68	68	65	65	62	65	65	65	65	65	61	64	64
(11)	Ingot Stocks & Other (a,b)	(14)	(17)	(27)	(20)	(38)	(30)	(28)	(23)	(41)	(40)	(38)	(17)	(18)	(32)	(14)	(13)	(16)	(12)	(13)	9	9
(12)	Net Metal Consumed (page 17)	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	2,915	r 2,773
(13)	Wire Rod Mills - Net Metal Consumed (p 17)	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	1,247
(14)	Wire Rod Mills - Metal Stocks & Other	(29)	(30)	(201)	(13)	(40)	7	(24)	(36)	(47)	(20)	(9)	1	(31)	(44)	(23)	(32)	(67)	(13)	54	65	43
(15)	Wire Rod Mills - Shipments...	1,808	1,961	1,680	1,747	1,763	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	1,290
(16)	Wire Rod - Net Imports...	241	208	486	446	159	77	1	(43)	36	(5)	15	10	(19)	(20)	(52)	32	84	70	302	542	437
(17)	Wire Mills - Net Metal Consumed	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	2,008	1,727
(18)	Wire Mills - Metal Stocks & Other...	(197)	(151)	(109)	(304)	(181)	(207)	151	77	(134)	16	(15)	(10)	30	72	115	72	59	121	(97)	(291)	(79)
(19)	Wire Mills - Metal Contained in Products Supplied (Table 4, Item 11)	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	1,717	1,648
(20)	Brass Mills - Net Metal Consumed (p 17)	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	1,284	1,299
(21)	Brass Mills - Metal Stocks & Other	(21)	82	128	74	(7)	(94)	(344)	(260)	(261)	(276)	(252)	(224)	(232)	(263)	(299)	(284)	(368)	(426)	(311)	(367)	(501)
(22)	Brass Mills - Metal Contained in Products Supplied (Table 4, Item 17)	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	798
(23)	Foundries - Net Metal Consumed (page 17)	274	270	264	238	223	230	242	250	186	204	196	184	182	198	185	175	179	179	141	156	156
(24)	Foundries - Metal Stocks & Other	(127)	(130)	(127)	(108)	(103)	(123)	(149)	(159)	(96)	(117)	(109)	(98)	(99)	(112)	(98)	(85)	(90)	(101)	(58)	(71)	(69)
(25)	Foundries - Metal Contained in Products Supplied...	148	140	138	130	120	108	93	91	90	87	87	87	83	86	87	91	90	78	83	85	87
(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	73	77	70	86	84	67	51	57	67	70	72	77	75	75	71	76	80	82	82	74	r 71

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																				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Consumption of Copper by:																					
Wire Rod Mills																					
Refined	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	1,224
Scrap	28	29	29	30	28	26	24	25	25	20	20	21	20	22	23	23	23	24	23	23	24
Total	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	1,247
Brass Mills ^(a)																					
Refined	647	632	582	540	525	528	500	506	474	467	504	467	465	464	463	462	455	455	457	463	462
Scrap	717	748	739	763	710	651	605	608	615	611	604	647	608	663	688	697	697	713	699	693	714
Total	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	1,176
Ingot Makers ^(b)																					
Refined	5	5	5	5	5	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scrap	101	99	104	91	100	87	83	84	86	84	83	62	62	80	64	63	64	64	64	44	44
Total	106	104	109	96	105	90	83	84	86	84	83	62	62	80	64	63	64	64	64	44	44
Foundries and Other Industries ^(a,c)																					
Refined	63	63	67	51	51	55	60	63	62	62	65	65	62	77	67	68	72	72	38	47	47
Scrap	71	63	65	57	51	52	44	50	51	63	62	50	54	52	52	40	41	41	41	44	44
Total	134	127	132	109	103	107	104	113	113	125	127	115	116	129	119	109	113	113	79	91	91
Powder Plants ^(d)																					
Refined	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Scrap	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Total	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Miscellaneous ^(b)																					
Refined	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scrap	73	77	70	86	89	74	56	57	67	70	72	77	75	75	71	76	80	82	82	74	71
Total	73	77	70	86	89	74	56	57	67	70	72	77	75	75	71	76	80	82	82	74	71
All Industries																					
Refined (Table 1, Item 16)	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	1,733
Scrap (Table 2, Item 10)	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	820	893	897	898	905	922	908	878	896
TOTAL COPPER CONSUMED (Table 3, Item 3)	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	2,766	2,629

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																				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Consumption of Alloying Metal by:																					
Brass Mills ^(a)																					
Zinc:Unalloyed & in Secondary Copper Alloys	231	241	236	230	209	179	170	176	173	174	154	150	134	125	125	125	125	136	133	122	118
Lead:Unalloyed & in Secondary Copper Alloys	6	7	4	4	3	3	3	3	4	4	4	6	5	4	2	2	5	4	3	3	3
Tin:Unalloyed & in Secondary Copper Alloys	2	2	3	4	3	2	2	2	5	3	2	2	1	1	1	1	2	1	1	1	1
Nickel:Unalloyed & in Secondary Copper Alloys	6	7	7	6	5	5	5	3	1	1	1	1	1	1	-	-	-	-	1	1	1
Total	245	256	250	243	221	189	180	184	183	182	162	159	141	131	128	128	131	141	138	127	123
Ingot Makers																					
Zinc:Unalloyed & in Secondary Copper Alloys	10	12	10	10	12	10	17	10	10	13	10	10	9	8	8	8	8	7	5	6	6
Lead:Unalloyed & in Secondary Copper Alloys	6	6	6	6	7	9	9	7	8	6	6	6	5	5	4	4	5	3	3	3	3
Tin:Unalloyed & in Secondary Copper Alloys	4	4	4	4	5	5	4	4	5	4	4	4	4	4	3	3	4	3	2	2	2
Nickel:Unalloyed	—	0	0	0	—	0	0	1	0	0	0	0	0	0	0	-	-	-	-	-	-
Total	20	22	20	20	24	24	30	22	23	23	20	20	18	16	15	15	17	13	11	11	11
Foundries and Other Industries ^(a)																					
Zinc:Unalloyed & in Secondary Copper Alloys	25	32	27	28	32	37	51	50	2	9	2	2	2	2	1	1	1	1	1	1	1
Lead:Unalloyed & in Secondary Copper Alloys	2	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Tin:Unalloyed & in Secondary Copper Alloys	2	2	2	2	1	1	1	1	2	2	2	1	1	1	0	0	1	0	0	0	0
Nickel:Unalloyed	—	0	0	0	—	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	29	35	30	31	33	39	54	53	5	12	4	4	4	4	2	2	2	1	1	1	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)
Total																					
All Industries																					
Zinc: Unalloyed & in Secondary Copper Alloys	266	284	273	268	253	226	238	236	186	196	166	162	145	134	134	133.7	133.4	143.3	139	129	124
Lead: Unalloyed & in Secondary Copper Alloys	13	14	11	11	11	13	12	11	13	10	10	12	11	10	7	7	10	7	6	6	6
Tin: Unalloyed & in Secondary Copper Alloys	8	8	9	9	9	8	8	7	11	9	8	7	6	6	4	5	6	4	4	4	4
Nickel: Unalloyed & in Secondary Copper Alloys	6	7	7	6	5	5	5	5	2	1	1	2	1	1	0	0	0	0	1	1	1
TOTAL ALLOYING METAL CONSUMED (Table 3, Item 8)	293	314	300	295	278	252	263	259	212	217	186	183	164	151	145	145	150	155	150	140	135

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																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 ^r	2023 ^p	
Net Metal Consumed by:																						
Wire Rod Mills - Copper (Table 3, Item 13)	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	1,247	
Brass Mills																						
Copper	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	1,176	
Alloy	245	256	250	243	221	189	180	184	183	182	162	159	141	131	128	128	131	141	138	127	123	
Ingot		2																				
Total (Table 3, Item 20)	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	1,284	1,299	
Foundries ^(a)																						
Copper	134	128	132	110	108	107	104	113	113	125	127	115	116	129	119	109	113	113	79	91	91	
Alloy	28	35	30	31	33	39	54	53	5	12	4	4	4	2	2	2	2	1	1	1	1	
Ingot	112	109	102	97	90	84	85	83	68	68	65	65	62	65	65	65	65	65	65	61.18	64	64
Total (Table 3, Item 23)..	274	272	264	238	232	230	242	250	186	204	196	184	183	198	185	175	179	179	141	156	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)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(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)	73	77	70	86	84	74	56	57	67	70	72	77	75	75	71	76	80	82	82	74	71	
Ingot																						
All Industries																						
Copper	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	2,722	2,586	
Alloy..	273	291	280	274	254	228	233	237	188	193	166	163	146	135	130	130	133	142	140	129	124	
Ingot (Table 3, Item 10) ^(b)	112	109	102	97	90	84	85	83	68	68	65	65	62	65	65	65	65	65	65	61	64	
NET METAL CONSUMED																						
(Table 3, Item 12)	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	2,915	2,773	

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																				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
(1) Bare Wire..	270	260	255	225	200	175	170	165	160	166	167	150	170	180	184	190	194	189	195	197	189
(2) Telecommunications Cable..	395	366	375	359	292	225	177	168	160	163	163	155	156	162	171	177	178	165	165	175	167
(3) Electronic Wire and Cable.	238	255	256	265	290	210	155	150	145	148	151	148	147	149	154	161	170	176	186	188	191
(4) Building Wire	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	1,286
(5) Magnet Wire.	561	570	532	536	493	443	400	380	360	367	380	361	370	384	405	420	421	391	391	416	396
(6) Power Cable	294	300	372	315	249	326	352	335	315	326	335	328	328	307	290	294	302	268	276	285	281
(7) Apparatus Wire and Cordage..	193	140	140	89	86	124	102	100	95	97	98	95	96	101	106	112	113	105	109	112	109
(8) Magnet)	411	410	403	400	398	330	283	406	443	518	540	538	554	576	589	615	599	520	556	590	635
(9) Other Insulated Wire and Cable.	82	85	93	119	90	54	43	40	38	39	40	38	38	38	39	40	41	40	41	42	41
(10) Total Insulated Wire and Cable..	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	3,106
(11) Total Wire Mill Products(a)..	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	3,295
(12) Strip, Sheet, Plate and Foil	957	1,068	1,035	1,067	999	928.3	692	794	740	738	816	761	790	788	753	753	676	658	728	722	631
(13) Mechanical Wire(b)	72	80	75	72	48	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
(14) Rod and Bar.	965	1,059	1,032	1,022	879	793	562	672	675	636	641	702	605	625	639	662	600	562	642	585	548
(15) Tube and Pipe(c)..	1,182	1,233	1,256	1,080	953	812	619	607	608	574	579	567	568	578	568	591	555	545	598	526	416
(16) Total Brass Mill Products (page 19).	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	1,595
(17) Total Foundry Products	250	230	225	215	200	180	160	150	145	140	140	138	130	136	138	145	142	128	136	141	147
(18) Total Powder Products	45	50	50	45	40	35	27	32	34	34	34	35	36	36	36	37	37	28	30	29	28
(19) Domestic Products - Total..	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	5,065
(20) Net Imports of Mill Products (page 20).	246	297	224	295	288	261	166	118	173	226	166	280	287	331	391	445	510	602	707	1,095	823
(21) Mill Products to Domestic Market*	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	6,531	5,888
(22) Building Construction	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	2,919	2,464
(23) Electrical and Electronic Products..	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	1,436	1,360
(24) Industrial Machinery and Equipment.	697	682	701	682	575	494	432	430	377	358	378	383	359	351	352	395	397	377	412	451	420
(25) Transportation Equipment.	915	991	974	947	854	702	621	768	819	915	980	983	987	992	1,068	1,134	1,084	920	1,009	1,065	1,074
(26) Consumer and General Products..	773	836	794	778	737	634	536	601	592	596	597	584	622	630	580	601	574	589	635	661	570

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 Equipment - 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 & Cutlery; Miscellaneous

Table 4, Item 16.**Supply of brass mill products in the United States**

Metal Content, millions of pounds																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Strip, Sheet, Plate and Foil																					
Copper	341	390	391	394	378	343	224	240	236	234	258	258	287	284	261	255	233	240	245	274	264
Alloy	616	677	644	673	621	586	468	554	504	504	558	504	504	504	493	498	443	418	483	448	367
Total	957	1,068	1,035	1,067	999	928	692	794	740	738	816	761	790	788	753	753	676	658	728	722	631
Mechanical Wire																					
Copper	16	19	18	14	11	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Alloy	56	61	57	58	37	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total	72	80	75	72	48	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Rod and Bar^(a)																					
Copper	170	205	212	211	184	173	133	158	167	151	163	180	143	159	168	183	171	168	176	170	173
Alloy	795	854	820	812	695	620	428	515	508	485	478	522	462	466	471	479	430	394	466	415	376
Total	965	1,059	1,032	1,022	879	793	562	672	675	636	641	702	605	625	639	662	600	562	642	585	548
Tube and Pipe^(b)																					
Copper	1,168	1,218	1,243	1,066	940	800	610	596	597	565	570	559	562	572	562	584	549	539	592	519	411
Alloy	14	15	13	14	13	12	9	11	11	9	8	8	7	6	6	7	6	6	6	7	5
Total	1,182	1,233	1,256	1,080	953	812	619	607	608	574	579	567	568	578	568	591	555	545	598	526	416
All Mill Products																					
Copper	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	847
Alloy	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	748
TOTAL BRASS MILL PRODUCTS	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	1,595

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																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Benelux	277	266	266	266	277	278	263	273	276	281	276	274	272	263	290	279	238	214	273	282	285
France	263	227	201	498	421	382	254	274	251	251	261	263	266	270	282	287	291	268	287	294	296
Germany	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	1,591
Italy	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	1,884
Japan	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	1,685
Mexico	311	319	276	229	258	232	302	251	327	277	259	262	266	283	286	280	297	273	253	261	269
Scandinavia	442	469	464	478	381	437	349	383	393	391	381	408	393	395	418	438	386	439	413	425	426
Spain	213	166	194	185	194	198	204	225	215	258	178	217	216	216	212	219	195	195	176	158	1
Turkey	88	88	144	160	141	121	46	65	65	66	70	70	70	70	65	65	65	65	65	69	162
United Kingdom	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	72
United States	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	1,595

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																				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022r	2023p
Imports of:																					
Bare Wire (including Stranded).	50	42	56	39	38	43	29	36	40	44	55	50	30	31	27	32	47	48	49	61	73
Insulated Wire and Cable	314	334	405	418	417	362	301	334	380	421	432	478	487	487	542	550	540	566	639	874	758
Total Wire Mill Products(1).	364	376	461	457	455	405	330	370	420	464	487	529	517	517	569	582	587	614	687	935	832
Copper-Strip, Sheet, Plate and Foil..	123	145	117	126	89	91	66	88	90	88	70	77	74	72	82	96	101	85	106	140	138
Rod and Bar.	37	54	53	54	69	52	33	46	51	50	51	54	43	35	38	41	37	32	40	53	43
Tube and Pipe	172	202	202	281	256	260	198	167	136	135	143	161	148	150	155	159	161	184	190	246	175
Alloy-Strip, Sheet, Plate and Foil	93	119	95	92	74	61	43	65	61	65	75	81	81	83	88	96	76	74	111	136	85
Mechanical Wire...	37	41	35	36	33	36	22	35	33	41	37	39	43	37	40	41	37	30	39	40	31
Rod and Bar.....	71	85	65	68	57	70	43	70	79	84	86	83	73	56	69	69	63	52	63	66	58
Tube and Pipe....	110	131	120	123	108	104	75	92	101	93	94	103	98	99	98	113	108	98	118	129	99
Total Brass Mill Products..	645	777	687	779	688	674	480	564	551	556	555	599	560	532	570	616	583	556	666	809	629
Total Powder Products..	8	6	8	10	10	8	7	9	9	8	8	9	9	8	8	8	7	5	6	5	4
TOTAL IMPORTS..	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	1,749	1,465
Exports of: ⁽¹⁾																					
Bare Wire (including Stranded).	82	99	107	102	103	88	66	88	90	113	157	135	114	97	94	105	89	67	76	73	88
Insulated Wire and Cable	368	386	401	432	382	400	336	458	444	421	434	432	408	355	373	373	331	276	310	319	307
Total Wire Mill Products(1).	450	485	508	534	485	488	402	546	534	534	591	567	523	452	466	477	420	344	386	393	394
Copper-Strip, Sheet, Plate and Foil..	33	38	34	36	32	32	25	37	37	37	36	38	36	38	41	41	36	35	45	45	45
Rod and Bar	9	21	33	37	40	44	26	23	31	32	29	26	26	28	27	22	19	21	22	21	21
Tube and Pipe	73	74	75	76	77	48	51	40	48	41	41	35	32	31	32	41	35	34	44	50	44
Alloy-Strip, Sheet, Plate and Foil	63	72	96	81	72	71	58	65	56	62	75	75	59	60	68	59	40	31	36	44	37
Mechanical Wire.	16	20	21	29	34	33	23	27	25	24	24	21	25	23	21	16	13	9	14	12	13
Rod and Bar	77	88	95	95	64	50	22	27	25	23	39	41	43	44	50	52	51	49	60	51	40
Tube and Pipe	37	43	44	39	35	40	29	36	33	31	32	35	37	36	35	37	40	39	29	23	27
Total Brass Mill Products..	307	356	397	391	355	318	233	255	255	249	275	272	258	259	274	267	234	218	251	246	225
Total Powder Products..	13	21	27	26	25	19	15	24	18	18	18	18	18	16	17	16	13	12	14	15	22
TOTAL EXPORTS.	770	862	932	951	865	825	650	825	807	802	884	857	798	727	757	761	667	574	651	654	642
NET IMPORTS (Table 4, Item 20)	246	297	224	295	288	261	166	118	173	226	166	280	287	331	391	445	510	602	707	1,095	823

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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