

**STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION**

In the Matter of:)
)
)
)
PROPOSED AMENDMENT)
TO 20.6.2 NMAC (Copper Rule))
)
_____)

No. WQCC 12-01(R)

EXHIBIT BRACK – 6

Annual Data 2012

Copper Supply & Consumption – 1991–2011

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 are the U.S. Geological Survey in the U.S. Department of the Interior, the Bureau of the Census in the U.S. Department of Commerce, 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 the wire rod and wire mills, brass mills, and foundries and then on 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 2011 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 1991 through 2011, will be found. Most data for 2011 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 GMC.

Finally, **Table 4** details the supply of mill, foundry and powder products and their consumption in the 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 1,224 thousand short tons in 2011. 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 1991 through 2011. 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 1991 through 2011. In this way all the data on supply and consumption appear in logical sequence proceeding through the report, eliminating the need for explanatory text.

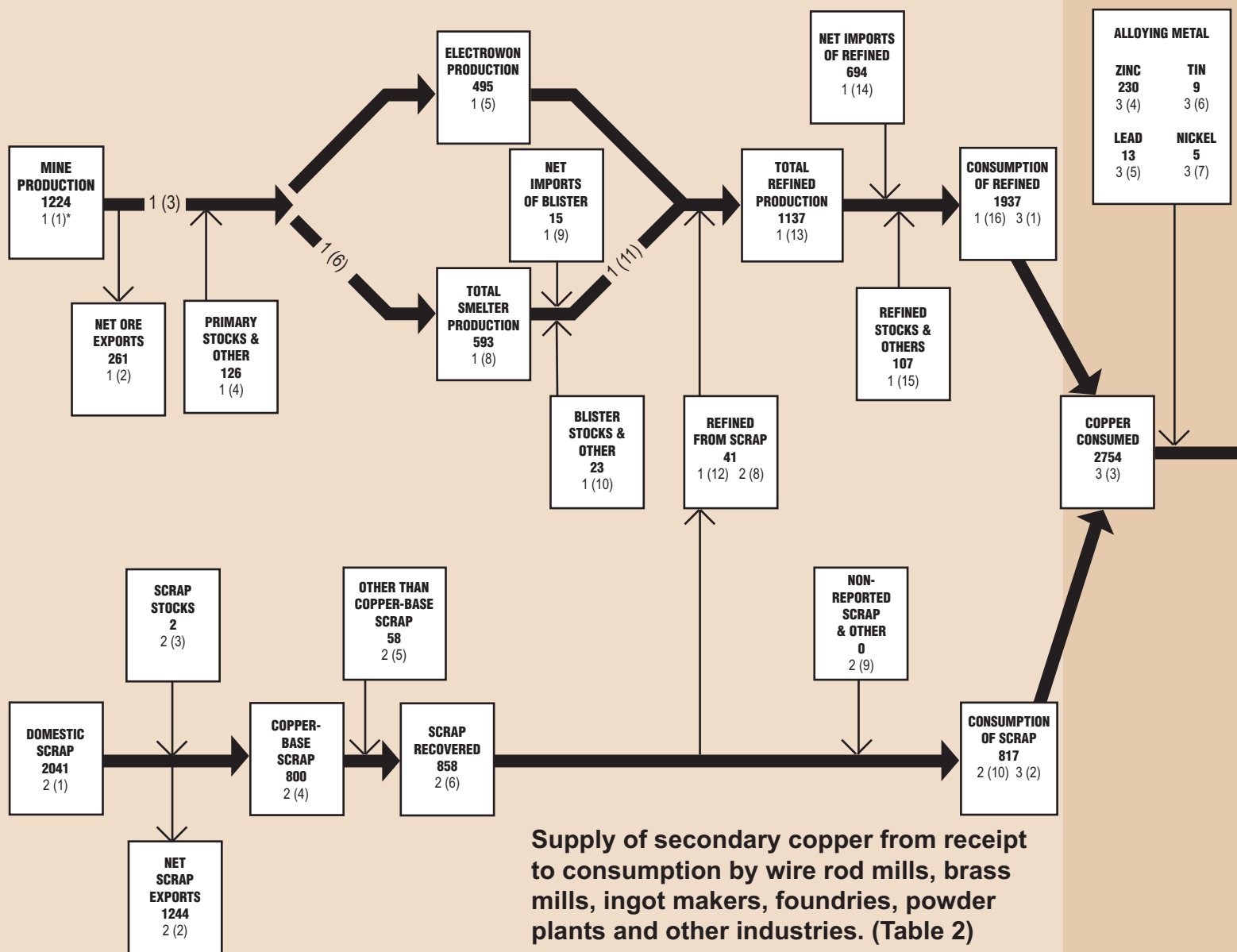
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Copper supply and consumption in the United States – 2011

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)

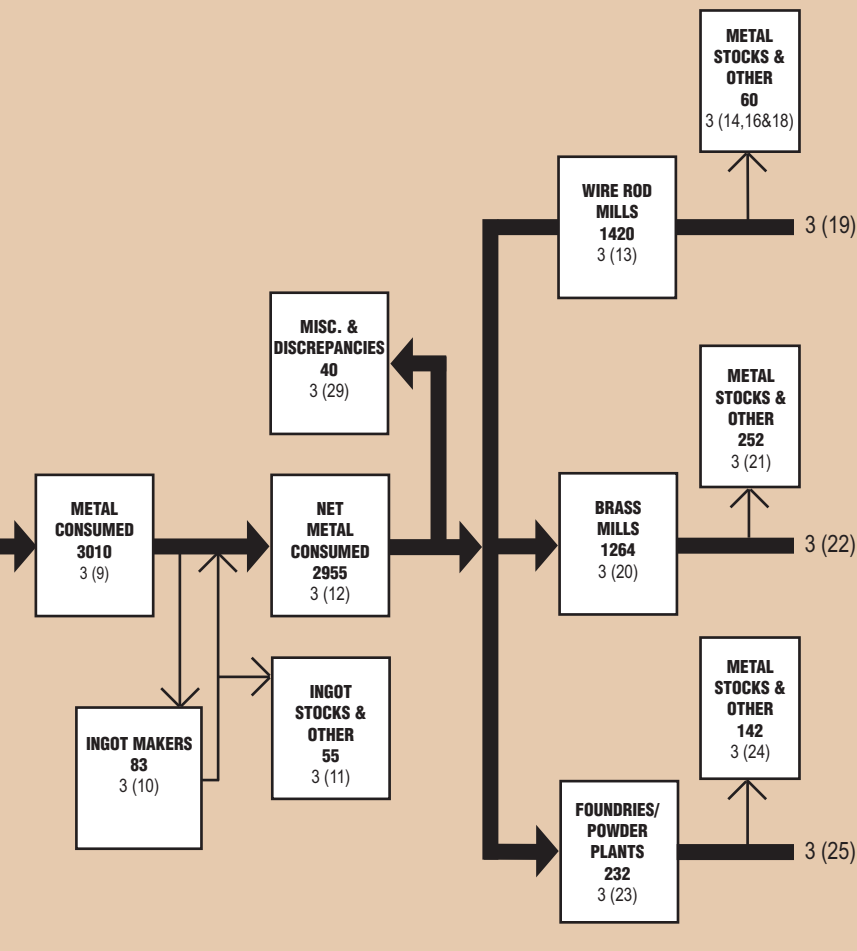
COPPER CONTENT, thousands of short tons

*1 (1) Refers to table and item in report where data for 1991 through 2011 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

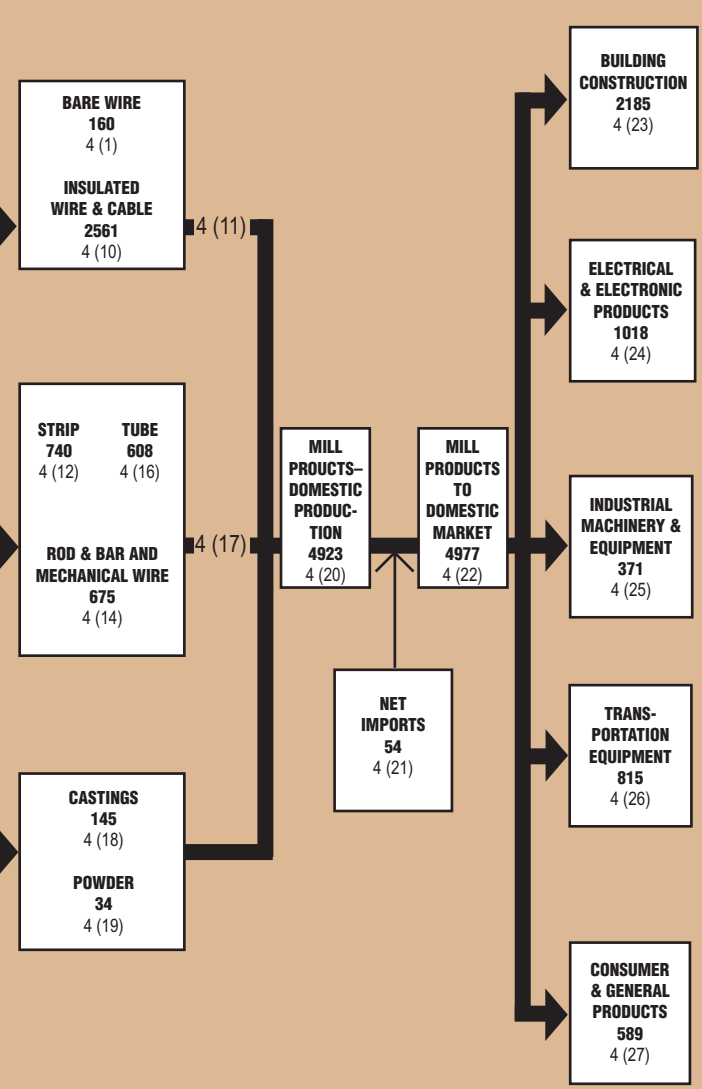


Table 1.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
(1) Mine Production (page 6).....	1,798	1,946	1,984	2,039	2,040	2,116	2,138	2,051	1,763	1,598	1,477	1,256	1,230	1,275	1,257	1,319	1,287	1,444	1,302	1,224	1,224
(2) Net Ore/Conc./Matte Imports (page 8) ^(a)	(198)	(186)	(211)	(200)	(159)	(174)	(153)	177	50	(225)	(24)	36	4	(24)	(195)	(222)	(214)	(381)	(166)	(150)	(261)
(3) Total Primary.....	1,600	1,760	1,773	1,839	1,881	1,942	1,985	2,228	1,813	1,373	1,453	1,292	1,234	1,251	1,062	1,097	1,074	1,063	1,136	1,074	962
(4) Primary Stocks and Other.....	125	104	168	148	91	113	248	85	35	185	164	123	12	(10)	126	39	162	127	46	62	126
(5) Electrowon Production.....	486	563	541	543	594	633	646	671	646	613	692	662	652	644	611	584	556	560	525	474	495
(6) Smelter Production from Primary.....	1,238	1,301	1,400	1,444	1,378	1,422	1,587	1,642	1,202	945	925	753	594	597	577	552	680	630	658	663	593
(7) Smelter Production from Scrap.....	402	434	452	441	390	374	314	256	226	157	88	—	—	—	—	—	—	—	—	—	—
(8) Total Smelter Production (page 8).....	1,639	1,735	1,852	1,885	1,768	1,796	1,901	1,898	1,428	1,102	1,013	753	594	597	577	552	680	630	658	663	593
(9) Net Imports of Blister/Anode (page 8).....	43	46	95	72	72	155	123	135	179	178	270	127	144	115	100	167	152	110	49	10	(15)
(10) Blister/Anode Stocks and Other (page 9).....	(29)	(92)	(144)	(177)	(70)	(154)	(133)	(125)	5	(3)	(87)	48	(9)	27	45	24	23	51	(9)	22	23
(11) Refined Production from Blister/Anode.....	1,654	1,688	1,803	1,780	1,770	1,797	1,891	1,908	1,612	1,277	1,196	928	729	740	721	744	855	791	699	694	601
(12) Refined Production from Scrap.....	59	113	136	135	151	168	180	162	81	87	72	77	59	56	52	49	51	60	51	42	41
(13) Total Refined Production (page 9).....	2,199	2,363	2,480	2,458	2,515	2,598	2,717	2,741	2,339	1,977	1,960	1,667	1,440	1,439	1,384	1,378	1,462	1,411	1,275	1,210	1,137
(14) Net Imports of Refined (page 9).....	19	110	139	338	233	497	611	703	981	1,019	1,295	1,136	622	636	1,023	1,117	861	776	643	581	694
(15) Refined Stocks and Other (page 10).....	36	(76)	(18)	158	51	(210)	(254)	(263)	(29)	339	(368)	(197)	462	587	99	(168)	33	41	(101)	157	107
(16) Consumption of Refined (page 10).....	2,254	2,397	2,602	2,954	2,799	2,885	3,074	3,181	3,291	3,335	2,887	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,937

Source: U.S. Department of the Interior, U.S. Geological Survey

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Arizona.....	1,129	1,271	1,279	1,279	1,290	1,367	1,378	1,312	1,157	1,024	969	845	817	797	761	785	806	923	784	775	827
Other States ^(a)	669	675	706	761	750	749	760	739	606	574	508	411	413	478	496	535	482	521	518	448	397
TOTAL.....	1,798	1,946	1,984	2,039	2,040	2,116	2,138	2,051	1,763	1,598	1,477	1,256	1,230	1,275	1,257	1,319	1,287	1,444	1,302	1,224	1,224

Source: U.S. Department of the Interior, U.S. Geological Survey

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 production¹

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Australasia																					
Australia.....	353	417	443	458	438	603	615	669	792	914	960	968	915	941	1,010	947	960	974	941	959 r	1,056
Papua New Guinea.....	225	213	224	228	234	205	123	167	207	224	225	233	216	191	213	214	187	176	184	176	156
Total Australasia.....	578	630	667	686	673	808	738	836	999	1,138	1,185	1,201	1,131	1,133	1,223	1,161	1,147	1,150	1,125	1,135 r	1,212
Americas																					
Argentina.....	—	—	—	—	—	—	34	171	220	160	211	225	219	194	206	199	199	173	158	155	129
Brazil.....	42	44	48	44	53	48	43	42	32	34	33	34	30	109	144	158	227	243	228	236 r	238
Canada.....	894	847	808	681	801	769	727	777	684	699	698	665	615	620	656	665	667	669	540	579 r	624
Chile.....	2,000	2,130	2,266	2,447	2,743	3,435	3,739	4,064	4,840	5,073	5,224	5,049	5,406	5,966	5,865	5,909	6,125	5,873	5,941	5,973 r	5,801
Mexico.....	294	306	332	337	368	376	431	424	420	402	409	363	394	447	473	368	372	272	263	298 r	485
Peru.....	414	407	413	397	452	534	560	533	591	611	796	931	929	1,142	1,113	1,156	1,312	1,398	1,407	1,375	1,361
United States.....	1,798	1,946	1,984	2,039	2,040	2,116	2,138	2,051	1,763	1,598	1,477	1,256	1,230	1,275	1,257	1,319	1,288	1,444	1,302	1,224 r	1,224
Total Americas.....	5,442	5,680	5,851	5,944	6,500	7,304	7,714	8,089	8,550	8,577	8,848	8,523	8,823	9,754	9,715	9,774	10,180	10,072	9,838	9,839 r	9,862
Europe																					
Bulgaria.....	52	52	67	83	85	96	95	93	107	103	107	105	103	104	104	122	121	116	116	116	116
Poland.....	353	366	422	415	424	466	457	481	511	501	522	554	546	585	564	548	498	473	484	469	470
Portugal.....	173	166	166	144	143	119	117	126	110	84	91	85	85	105	99	87	99	99	96	82 r	91
Scandinavia.....	121	123	120	106	110	98	112	92	89	99	95	95	108	108	112	110	84	78	76	101	107
Serbia.....	125	116	83	100	82	77	81	78	57	51	30	34	23	13	14	13	18	21	21	21	31
Total Europe.....	824	823	856	849	845	856	862	870	873	838	845	873	865	916	893	880	821	786	793	788 r	814
Asia																					
Russian Federation.....	926	770	643	632	580	577	557	584	590	584	595	730	694	694	705	744	761	777	745	775	786
China.....	435	482	507	568	623	621	687	678	737	795	802	780	816	977	998	1,126	1,043	1,205	1,171	1,300 r	1,432
India.....	56	54	55	51	51	53	41	44	38	37	38	34	32	33	25	32	36	31	33	36	35
Indonesia.....	242	321	341	368	507	579	604	892	866	1,107	1,155	1,282	1,106	929	1,174	900	870	717	1,098	962 r	598
Iran.....	93	116	96	130	112	114	131	141	143	143	146	146	162	161	181	238	269	273	289	283	286
Japan ⁽²⁾	14	13	11	7	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Kazakhstan ⁽³⁾	NA	276	290	237	256	276	349	373	412	474	518	522	535	509	443	479	448	465	448	419	385
Mongolia ⁽⁴⁾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	146	143	142	139	137
Philippines.....	164	136	150	128	119	68	54	50	41	35	26	21	22	18	18	19	24	24	52	65 r	70
Total Asia.....	1,929	2,168	2,093	2,120	2,248	2,288	2,423	2,762	2,827	3,175	3,280	3,515	3,367	3,323	3,545	3,538	3,598	3,634	3,976	3,979 r	3,729
Africa																					
Namibia.....	39	38	37	32	25	20	20	7	—	6	17	20	18	15	12	7	11	10	—	—	4
South Africa.....	213	218	208	203	208	208	205	207	177	179	123	100	99	96	98	99	107	120	119	113 r	106
Congo.....	321	159	51	33	39	55	44	39	34	36	42	42	70	82	111	141	157	236	332	401 r	503
Zambia.....	455	477	476	424	347	400	383	347	309	275	349	376	384	443	477	523	561	612	614	756 r	736
Total Africa.....	1,027	892	771	692	619	683	652	600	520	496	531	538	571	636	697	769	836	977	1,065	1,270 r	1,348
Other⁽⁵⁾.....	225	203	198	188	255	335	348	339	333	339	331	320	320	519	547	600	476	509	741	666 r	710
TOTAL WORLD.....	10,025	10,395	10,435	10,478	11,140	12,274	12,737	13,497	14,103	14,563	15,020	14,970	15,077	16,281	16,621	16,721	17,057	17,127	17,539	17,677 r	17,676

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) Mongolia no longer included with China starting in 2007.

(5) 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 and matte in the United States

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Imports (Ore, Concentrate, Matte).....	69	107	40	89	143	82	51	242	160	2	52	80	32	27	2	2	3	2	0	2	17
Exports (Ore, Concentrate, Matte).....	(267)	(294)	(251)	(289)	(302)	(256)	(204)	(65)	(110)	(227)	(76)	(44)	(28)	(51)	(197)	(224)	(217)	(383)	(166)	(151) r	(278)
Net Imports (Ore, Concentrate, Matte)^(a).....	(198)	(186)	(211)	(200)	(159)	(174)	(153)	177	50	(225)	(24)	36	4	(24)	(195)	(222)	(214)	(381)	(166)	(150) r	(261)

Source: U.S. Department of the Interior, U.S. Geological Survey.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p	
Smelter Production - Domestic Ore (Table 1, Item 6).....	1,238	1,301	1,400	1,444	1,378	1,422	1,587	1,642	1,202	945	925	753	594	597	577	552	680	630	658	662	r	593
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)	(a)
Smelter Production - Scrap (Table 1, Item 7) (a).....	402	434	452	441	390	374	314	256	226	157	88	—	—	—	—	—	—	—	—	—	—	—
TOTAL SMELTER PRODUCTION.....	1,639	1,735	1,852	1,885	1,768	1,796	1,901	1,898	1,428	1,102	1,013	753	594	597	577	552	680	630	658	662	r	593

Source: U.S. Department of the Interior, U.S. Geological Survey.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p	
Imports of Blister/Anode Copper.....	67	64	108	85	104	181	158	165	213	204	299	163	173	166	146	188	169	136	75	29	r	1
Exports of Blister/Anode Copper.....	(23)	(19)	(13)	(13)	(33)	(26)	(35)	(30)	(34)	(26)	(29)	(36)	(29)	(51)	(46)	(21)	(17)	(26)	(26)	(19)	r	(16)
Net Imports of Blister/Anode Copper.....	43	46	95	72	72	155	123	135	179	178	270	127	144	115	100	167	152	110	49	10	r	(15)

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p	
End-of-Year Blister/Anode Copper Stocks.....	149	183	161	189	192	191	198	176	152	134	108	49	63	57	49	21	29	27	17	29	r	14
Net Change ^(a)	18	34	(22)	28	3	(1)	7	(22)	(24)	(18)	(26)	(59)	14	(6)	(8)	(28)	8	(2)	(10)	12	r	(15)
Apparent Change ^(b)	29	92	144	177	70	154	133	125	(5)	3	87	(45)	9	(27)	(45)	(24)	(23)	(51)	(9)	(22)	r	(23)

Source: U.S. Department of the Interior, U.S. Geological Survey.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Refined Production - Primary Sources (Table 1, Items 1,2,4,9 and 10).....	1,739	1,817	1,893	1,863	1,974	2,056	2,223	2,323	2,032	1,733	1,800	1,590	1,381	1,383	1,332	1,328	1,411	1,351	1,224	1,168	1,086
Refined Production - Scrap at Smelters (Table 1, Item 7).....	402	434	452	441	390	374	314	256	226	157	88	—	—	—	—	—	—	—	—	—	—
Refined Production - Scrap at Refiners (Table 1, Item 12).....	59	113	136	135	151	168	180	162	81	87	72	77	59	56	52	49	51	60	51	42	41
TOTAL REFINED PRODUCTION.....	2,199	2,363	2,480	2,458	2,515	2,598	2,717	2,741	2,339	1,977	1,960	1,667	1,440	1,439	1,384	1,378	1,462	1,411	1,275	1,210	1,137

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 14.

Imports and exports of refined copper in the United States

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p	
General Imports of Refined Copper ¹	318	319	379	512	473	684	714	799	1,009	1,126	1,321	1,168	758	776	1,077	1,184	917	798	732	667	r	739
Total Exports of Refined Copper.....	(299)	(209)	(239)	(174)	(240)	(187)	(103)	(96)	(28)	(107)	(26)	(32)	(136)	(140)	(54)	(67)	(56)	(22)	(89)	(86)	r	(45)
Net Imports of Refined Copper.....	19	110	139	338	233	497	611	703	981	1,019	1,295	1,136	622	636	1,023	1,117	861	776	643	581	r	694

Source: U.S. Department of the Interior, U.S. Geological Survey.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 ^p
End-of year Refined Copper Stocks at:																					
Refineries.....	42	30	29	25	42	36	66	49	11	16	32	13	13	11	9	31	24	17	26	11	9
Wire Rod Mills.....	33	41	38	44	27	35	27	41	37	44	41	25	33	22	22	24	23	25	28	22	26
Brass Mills.....	12	14	16	9	8	15	16	23	26	26	28	32	22	24	27	38	11	9	8	7	8
Other Processors.....	7	9	7	11	3	3	4	4	4	5	5	5	5	4	6	6	6	4	5	5	5
Government.....	22	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Commodity Exchange.....	34	106	74	27	24	29	92	94	92	65	269	399	281	48	7	34	15	36	99	65	88
London Metal Exchange ¹	—	—	—	—	75	42	142	376	454	225	680	662	369	39	1	83	67	117	312	313	315
End-of Year Total.....	149	221	164	116	179	160	347	587	624	381	1,055	1,136	723	148	73	216	146	207	478	423	451
Net Change ^(a)	8	72	(58)	(48)	64	(19)	187	240	37	(243)	674	81	(413)	(575)	(75)	144	(70)	61	271	(56)	29
Apparent Change ^(b)	(36)	76	18	(158)	(51)	210	254	263	29	(339)	368	197	(462)	(587)	(99)	168	(33)	(41)	101	(157)	(107)

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

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

(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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 ^p
Consumption of Refined Copper by:																					
Wire Rod Mills.....	1,755	1,846	2,006	2,271	2,149	2,183	2,362	2,396	2,458	2,469	2,138	1,885	1,809	1,962	1,852	1,731	1,775	1,642	1,257	1,378	1,400
Brass Mills.....	457	505	555	626	588	648	659	727	762	797	687	654	647	632	582	540	525	528	500	506	474
Ingot Makers.....	5	6	5	8	9	4	5	6	5	5	5	5	5	5	5	5	5	3	0	0	0
Foundries and Other Industries.....	14	15	14	19	53	50	52	57	66	64	57	62	63	63	67	51	51	55	60	63	63
Powder Plants.....	8	8	7	10	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Other Industries.....	16	17	15	21	0	0	(4)	(5)	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL REFINED CONSUMPTION.....	2,254	2,397	2,602	2,954	2,799	2,885	3,074	3,181	3,291	3,335	2,887	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,937

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

(a) - Starting with 1995 Powder Plants data are included with Foundries. Starting in 2008 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**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
(1) Receipts of Domestic Scrap.....	1,527	1,510	1,570	1,769	1,595	1,534	1,696	1,598	1,542	1,667	1,570	1,423	1,511	1,557	1,511	1,623	1,570	1,755	1,648	1,826	2,041
(2) Net Scrap Imports (page 12) ^(a)	(174)	(77)	(71)	(154)	(239)	(161)	(154)	(115)	(157)	(312)	(384)	(359)	(538)	(549)	(512)	(628)	(653)	(883)	(850)	(1,033)	(1,244)
(3) Scrap Stocks (page 12).....	—	—	6	(18)	24	3	(11)	1	(5)	9	11	3	3	(11)	(9)	(2)	20	0	5	1	2
Recovery from Copper-Base Scrap (page 13)	1,353	1,434	1,504	1,597	1,380	1,375	1,531	1,484	1,380	1,364	1,198	1,067	977	996	990	992	937	873	803	794	800
Recovery from Other Scrap (page 13)	46	48	51	54	72	79	82	84	86	82	69	68	64	68	61	77	83	67	51	58	58
(6) Total Scrap Recovery (page 13).....	1,399	1,482	1,555	1,651	1,452	1,454	1,613	1,568	1,466	1,446	1,267	1,135	1,041	1,064	1,051	1,069	1,020	940	854	852	858
(7) Smelter Production from Scrap.....	(402)	(434)	(452)	(441)	(390)	(374)	(314)	(256)	(226)	(157)	(88)	—	—	—	—	—	—	—	—	—	—
(8) Refined Production from Scrap.....	(59)	(113)	(136)	(135)	(151)	(168)	(180)	(162)	(81)	(87)	(72)	(77)	(59)	(56)	(52)	(49)	(51)	(60)	(51)	(42)	(41)
(9) Non-Reported Scrap & Other.....	NA	NA	NA	NA	153	162	42	33	55	15	(31)	(2)	8	8	8	8	9	10	9	0	0
(10) Consumption of Scrap (page 13).....	938	936	967	1,075	1,064	1,074	1,161	1,183	1,214	1,217	1,076	1,056	990	1,016	1,006	1,027	978	890	812	810	817

Source: U.S. Department of the Interior, U.S. Geological Survey.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Imports of Copper-Base Scrap.....	107	148	167	165	173	196	196	148	119	124	100	89	78	88	100	101	124	117	79	106	r 121
Exports of Copper-Base Scrap.....	(281)	(224)	(238)	(319)	(412)	(357)	(350)	(263)	(276)	(436)	(484)	(448)	(616)	(637)	(612)	(729)	(777)	(1,000)	(929)	(1,139)	r (1,365)
Net Imports of Copper-Base Scrap^(a).....	(174)	(77)	(71)	(154)	(239)	(161)	(154)	(115)	(157)	(312)	(384)	(359)	(538)	(549)	(512)	(628)	(653)	(883)	(850)	(1,033)	r (1,244)

Source: U.S. Department of the Interior, U.S. Geological Survey.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Scrap Copper-Base Stocks at:																					
Brass Mills.....	27	39	33	41	36	35	38	46	50	50	43	42	40	51	56	58	40	40	36	33	32
Secondary Smelters & Primary Producers...	41	30	31	40	24	23	31	23	23	14	10	8	7	7	12	12	10	11	8	10	r 9
Foundries.....	7	7	6	8	6	5	5	4	5	5	5	5	5	4	4	4	4	3	5	4	r 4
Other Processors.....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	r 2
End-of Year Total....	78	77	72	90	66	63	74	73	78	69	58	55	52	63	72	74	54	54	49	47	45
Net Change ^(a)	—	—	(6)	18	(24)	(3)	11	(1)	5	(9)	(11)	(3)	(3)	11	9	2	(20)	(0)	(5)	(1)	r (2)

Source: U.S. Department of the Interior, U.S. Geological Survey.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p		
Copper Recovered from Copper-Base Scrap.....																							
New Scrap.....	739	774	820	906	922	941	1,017	1,008	995	1,002	876	885	773	810	805	851	797	726	670	674	r	679	
Old Scrap.....	614	659	684	691	458	434	514	476	385	362	322	182	204	186	185	141	140	147	132	120	120	r	120
Total (Table 2, Item 4).....	1,353	1,434	1,504	1,597	1,380	1,375	1,531	1,484	1,380	1,364	1,198	1,067	977	996	990	992	937	873	803	794	r	800	800
Copper Recovered from Scrap other than Copper-Base																							
New Scrap.....	24	25	26	29	41	42	48	47	51	50	42	41	40	43	44	52	50	42	32	34	r	34	
Old Scrap.....	22	24	25	25	31	37	34	37	35	32	27	27	24	25	17	25	33	26	19	24	r	24	
Total (Table 2, Item 5).....	46	48	51	54	72	79	82	84	86	82	69	68	64	68	61	77	83	67	51	58	r	58	
Copper Recovered from All Scrap																							
New Scrap.....	763	799	846	935	963	983	1,065	1,055	1,046	1,052	918	926	813	853	848	902	846	768	703	708	r	713	
Old Scrap.....	636	683	709	716	489	471	548	513	420	394	349	209	228	211	202	166	173	172	151	144	r	145	
Total Copper Recovered (Table 2, Item 6)....	1,399	1,482	1,555	1,651	1,452	1,454	1,613	1,568	1,466	1,446	1,267	1,135	1,041	1,064	1,051	1,069	1,020	940	854	852	r	858	

Source: U.S. Department of the Interior, U.S. Geological Survey

p - preliminary, r - revised

Numbers may not sum due to rounding.

Table 2, Item 10.

Consumption of copper scrap in the United States

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p	
Consumption of Copper Scrap by:																						
Wire Rod Mills.....	20	20	26	24	29	30	33	33	34	35	30	30	28	29	29	30	28	26	24	20	r	20
Brass Mills.....	598	597	624	732	757	768	853	861	880	896	771	779	717	748	739	763	710	651	605	603	r	609
Ingot Makers.....	182	181	185	183	140	137	138	149	143	130	135	109	101	99	104	91	100	87	83	114	r	115
Foundries.....	70	69	66	66	69	59	61	57	70	75	71	70	71	63	65	57	51	52	44	32	r	33
Powder Plants ^(a)	11	11	11	15	(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)	13	12	9	9	9	9	9	9	6	7	5	3	r	3
Non-copper based scrap	58	57	55	56	72	79	82	84	86	82	69	68	64	68	61	77	83	67	51	38	r	37
Miscellaneous Adjustments	—	1	—	(1)	(3)	1	(6)	(1)	(12)	(13)	(9)	(9)	—	—	—	—	—	—	—	—	—	—
TOTAL COPPER CONSUMED	938	936	967	1,075	1,064	1,074	1,161	1,183	1,214	1,217	1,076	1,056	990	1,016	1,006	1,027	978	890	812	810	r	817

Source: U.S. Department of the Interior, U.S. Geological Survey

p - preliminary, r - revised

(a) - Starting with 1995 Powder Plants data are included with Foundries. Starting in 2008 Wire Rod Mill Consumption data is included with Brass Mill.

(b) Source data expanded in 1999 to include copper chemicals.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Consumption of Refined Copper (Table 1, Item 16)	2,254	2,397	2,602	2,954	2,799	2,885	3,074	3,181	3,291	3,335	2,887	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,937
Consumption of Copper in Scrap (Table 2, Item 10)	938	936	967	1,075	1,064	1,074	1,161	1,183	1,214	1,217	1,076	1,056	990	1,016	1,006	1,027	978	890	812	810	817
Total Copper Consumed (page 15)	3,192	3,333	3,569	4,029	3,863	3,959	4,235	4,364	4,505	4,552	3,963	3,662	3,514	3,678	3,512	3,354	3,334	3,118	2,628	2,757	2,754
(4) Consumption of Zinc.....	305	335	346	393	283	292	300	305	312	329	283	296	266	284	273	268	253	226	238	236	230
(5) Consumption of Lead.....	26	27	27	28	19	19	20	20	19	19	17	15	13	14	11	11	11	13	12	11	13
(6) Consumption of Tin.....	13	13	13	13	9	8	9	10	9	11	11	10	8	8	9	9	9	8	8	7	9
(7) Consumption of Nickel.....	9	10	11	12	9	8	7	8	11	11	8	6	6	7	7	6	6	5	5	5	5
Total Alloying Metal Consumed (page 16).....	353	385	396	446	320	327	336	343	351	370	319	327	293	314	300	295	278	252	263	259	256
(9) Total Metal Consumed	3,545	3,718	3,965	4,475	4,183	4,286	4,571	4,707	4,856	4,922	4,282	3,989	3,807	3,992	3,812	3,649	3,611	3,371	2,891	3,016	3,010
(10) Ingot Consumed (page 17) ^(a)	173	175	167	180	134	136	140	125	139	137	126	122	112	109	102	97	90	84	85	83	83
(11) Ingot Stocks & Other ^(a,b)	(79)	(77)	(89)	(83)	(13)	(38)	(39)	(66)	(40)	(32)	(45)	(16)	(14)	(17)	(27)	(20)	(38)	(30)	(28)	(53)	(55)
(12) Net Metal Consumed (page 17).....	3,466	3,641	3,877	4,392	4,170	4,248	4,532	4,641	4,816	4,890	4,237	3,972	3,793	3,974	3,785	3,629	3,573	3,341	2,863	2,964	2,955
Wire Rod Mills - Net Metal Consumed (p 17).....	1,774	1,866	2,033	2,295	2,178	2,213	2,395	2,429	2,492	2,504	2,168	1,915	1,837	1,991	1,881	1,760	1,802	1,668	1,281	1,398	1,420
Wire Rod Mills - Metal Stocks & Other.....	(132)	(145)	(129)	(190)	(235)	8	(72)	(53)	(154)	(148)	(114)	32	(29)	(30)	(201)	(13)	(40)	7	(24)	(31)	(42)
(15) Wire Rod Mills - Shipments.....	1,642	1,721	1,904	2,105	1,943	2,221	2,323	2,376	2,338	2,356	2,054	1,947	1,808	1,961	1,680	1,747	1,763	1,676	1,257	1,367	1,378
(16) Wire Rod - Net Imports.....	(12)	(18)	(25)	(54)	(10)	(6)	18	51	197	237	351	339	241	208	486	446	159	77	1	(43)	(18)
Wire Mills - Net Metal Consumed.....	1,631	1,703	1,878	2,051	1,933	2,215	2,341	2,427	2,535	2,593	2,405	2,286	2,049	2,169	2,166	2,193	1,922	1,753	1,257	1,324	1,360
Wire Mills - Metal Stocks & Other.....	(43)	(73)	(158)	(143)	(136)	(370)	(327)	(320)	(351)	(422)	(439)	(540)	(197)	(151)	(109)	(304)	(181)	(207)	151	77	0
Wire Mills - Metal Contained in Products Supplied (Table 4, Item 11)	1,588	1,630	1,720	1,909	1,797	1,846	2,014	2,108	2,184	2,172	1,966	1,747	1,852	2,018	2,057	1,889	1,741	1,546	1,408	1,401	1,360
(20) Brass Mills - Net Metal Consumed (p 17).....	1,347	1,427	1,516	1,738	1,599	1,680	1,783	1,867	1,934	1,998	1,717	1,712	1,609	1,637	1,571	1,547	1,455	1,368	1,285	1,293	1,264
Brass Mills - Metal Stocks & Other.....	(10)	29	(12)	(31)	81	104	69	30	52	18	(53)	(46)	(21)	82	128	74	(7)	(94)	(344)	(255)	(252)
Brass Mills - Metal Contained in Products Foundries - Net Metal Consumed (page 17).....	1,337	1,456	1,505	1,708	1,680	1,784	1,852	1,897	1,986	2,016	1,664	1,686	1,588	1,720	1,699	1,621	1,448	1,274	941	1,038	1,011
(23) Foundries - Metal Stocks & Other.....	216	217	205	218	287	275	282	267	303	307	283	278	274	270	264	238	223	230	242	232	232
(24) Foundries - Metal Contained in Products Supplied	(23)	(27)	(18)	(19)	(77)	(64)	(70)	(54)	(86)	(90)	(113)	(121)	(127)	(130)	(127)	(108)	(103)	(123)	(149)	(141)	(142)
(25) Powder Plants - Net Metal Consumed ^(c)	193	190	188	199	211	212	213	214	217	218	171	158	148	140	138	130	120	108	93	91	90
(26) Powder Plants - Metal Consumed ^(c)	23	24	22	31	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
(27) Stocks & Other ^(c)	(7)	(6)	(3)	(8)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
(28) Powder Plants - Metal Contained in Products Other Industries - Net Metal Consumed	16	18	19	23	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
(29) Miscellaneous and Discrepancies.....	106	107	101	110	106	80	72	78	87	81	69	67	73	77	70	86	90	74	56	41	40

Sources: U.S. Department of the Interior, U.S. Geological Survey

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Consumption of Copper by:																					
Wire Rod Mills																					
Refined.....	1,755	1,846	2,006	2,271	2,149	2,183	2,362	2,396	2,458	2,469	2,138	1,885	1,809	1,962	1,852	1,731	1,775	1,642	1,257	1,378	1,400
Scrap.....	20	20	26	24	29	30	33	33	34	35	30	30	28	29	29	30	28	26	24	20	20
Total.....	1,774	1,866	2,033	2,295	2,178	2,213	2,395	2,429	2,492	2,504	2,168	1,915	1,837	1,991	1,881	1,760	1,802	1,668	1,281	1,398	1,420
Brass Mills ^(a)																					
Refined.....	457	505	555	626	588	648	659	727	762	797	687	654	647	632	582	540	525	528	500	506	474
Scrap.....	598	597	624	732	757	768	853	861	880	896	771	779	717	748	739	763	710	651	605	603	609
Total.....	1,054	1,102	1,179	1,358	1,345	1,416	1,512	1,588	1,642	1,693	1,458	1,433	1,364	1,380	1,321	1,303	1,235	1,179	1,105	1,109	1,083
Ingot Makers ^(b)																					
Refined.....	5	6	5	8	9	4	5	6	5	5	5	5	5	5	5	5	5	3	0	0	0
Scrap.....	182	181	185	183	140	137	138	149	143	130	135	109	101	99	104	91	100	87	83	114	115
Total.....	187	187	190	191	149	141	143	155	148	135	140	114	106	104	109	96	105	90	83	114	115
Foundries and Other Industries ^{(a),(c)}																					
Refined.....	14	15	14	19	53	50	52	57	66	64	57	62	63	63	67	51	51	55	60	63	63
Scrap.....	70	69	66	66	69	59	61	57	70	75	71	70	71	63	65	57	51	52	44	32	33
Total.....	84	85	80	85	122	109	113	114	136	139	128	132	134	127	132	109	103	107	104	96	96
Powder Plants ^(c)																					
Refined.....	8	8	7	10	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Scrap.....	11	11	11	15	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Total.....	19	19	18	25	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Miscellaneous ^(d)																					
Refined.....	16	17	15	21	—	—	(4)	(5)	—	—	—	—	—	—	—	—	—	—	—	—	—
Scrap.....	58	57	55	56	69	80	76	83	87	81	69	68	73	77	70	86	89	74	56	41	40
Total.....	74	74	70	76	69	80	72	78	87	81	69	68	73	77	70	86	89	74	56	41	40
All Industries																					
Refined (Table 1, Item 16)	2,254	2,397	2,602	2,954	2,799	2,885	3,074	3,181	3,291	3,335	2,887	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,937
Scrap (Table 2, Item 10).....	938	936	967	1,075	1,064	1,074	1,161	1,183	1,214	1,217	1,076	1,056	990	1,016	1,006	1,027	978	890	812	810	817
TOTAL COPPER CONSUMED (Table 3, Item 3)....	3,192	3,333	3,569	4,029	3,863	3,959	4,235	4,364	4,505	4,552	3,963	3,662	3,514	3,678	3,512	3,354	3,334	3,118	2,628	2,757	2,754

Sources: U.S. Department of the Interior, U.S. Geological Survey

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Consumption of Alloying Metal by:																					
Brass Mills ^(a)																					
Zinc:Unalloyed & in Secondary Copper Alloys	261	290	302	340	236	246	253	259	269	501	241	263	231	241	236	230	209	179	170	176	172
Lead:Unalloyed & in Secondary Copper Alloys	7	8	8	9	7	8	9	9	9	8	7	7	6	7	4	4	3	3	3	3	3
Tin:Unalloyed & in Secondary Copper Alloys...	2	2	2	2	2	2	2	3	3	4	3	3	2	2	3	4	3	2	2	2	4
Nickel:Unalloyed & in Secondary Copper Alloys	9	10	10	11	9	8	7	8	11	11	8	6	6	7	7	6	5	5	5	3	3
Total	278	309	321	361	254	264	271	279	292	305	259	279	245	256	250	243	221	189	180	184	181
Ingot Makers																					
Zinc:Unalloyed & in Secondary Copper Alloys	37	38	38	44	19	19	20	20	17	18	16	12	10	12	10	10	12	10	17	10	9
Lead:Unalloyed & in Secondary Copper Alloys	17	17	18	18	10	9	10	10	9	10	9	7	6	6	6	6	7	9	9	7	9
Tin:Unalloyed & in Secondary Copper Alloys	10	10	10	10	6	5	6	6	5	6	6	5	4	4	4	4	5	5	4	4	4
Nickel:Unalloyed	0	0	1	1	—	—	—	—	—	—	—	—	—	0	0	0	—	0	0	1	1
Total	64	65	65	73	35	33	36	36	31	34	31	24	20	22	20	20	24	24	30	22	23
Foundries and Other Industries ^(a)																					
Zinc:Unalloyed & in Secondary Copper Alloys	2	3	2	3	28	27	27	26	26	29	26	21	25	32	27	28	32	37	51	50	49
Lead:Unalloyed & in Secondary Copper Alloys	3	3	3	3	2	2	1	1	1	1	1	1	2	1	1	1	0	1	1	1	1
Tin:Unalloyed & in Secondary Copper Alloys	2	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1
Nickel:Unalloyed	1	1	1	1	—	—	—	—	—	—	—	—	—	0	0	0	—	0	0	1	1
Total	8	9	8	9	31	30	29	28	28	31	29	24	29	35	30	31	33	39	54	53	52
Powder Plants ^(a)																					
Zinc-Slab	1	1	1	1																	
Zinc in Scrap	1	1	1	1																	
Tin-Refined	1	1	1	1	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
Total	2	2	2	3																	
All Industries																					
Zinc: Unalloyed & in Secondary Copper Alloys	305	335	346	392	283	292	300	305	312	329	283	296	266	284	273	268	253	226	238	236	230
Lead: Unalloyed & in Secondary Copper Alloys	26	27	27	28	19	19	20	20	19	19	17	15	13	14	11	11	11	13	12	11	13
Tin: Unalloyed & in Secondary Copper Alloys	13	13	13	13	9	8	9	10	9	11	11	10	8	8	9	9	9	8	8	7	9
Nickel: Unalloyed & in Secondary Copper Alloys	9	10	10	11	9	8	7	8	11	11	8	6	6	7	7	6	5	5	5	5	5
TOTAL ALLOYING METAL CONSUMED (Table 3, Item 8)	353	385	396	446	320	327	336	343	351	370	319	327	293	314	300	295	278	252	263	259	256

Sources: U.S. Department of the Interior, U.S. Geological Survey

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 ^p
Net Metal Consumed by:																					
Wire Rod Mills - Copper																					
(Table 3, Item 13)	1,774	1,866	2,033	2,295	2,178	2,213	2,395	2,429	2,492	2,504	2,168	1,915	1,837	1,991	1,881	1,760	1,802	1,668	1,281	1,398	1,420
Brass Mills																					
Copper.....	1,054	1,102	1,179	1,358	1,345	1,416	1,512	1,588	1,642	1,693	1,458	1,433	1,364	1,380	1,321	1,303	1,235	1,179	1,105	1,109	1,083
Alloy.....	278	309	321	361	254	264	271	279	292	305	259	279	245	256	250	243	221	189	180	184	181
Ingot.....	15	16	17	19										2							
Total (Table 3, Item 20).....	1,347	1,427	1,516	1,738	1,599	1,680	1,783	1,867	1,934	1,998	1,717	1,712	1,609	1,637	1,571	1,547	1,456	1,368	1,285	1,293	1,264
Foundries ^(a)																					
Copper.....	84	85	80	85	122	109	113	114	136	139	128	132	134	128	132	110	100	107	104	96	96
Alloy.....	8	9	8	9	31	30	29	28	28	31	29	24	28	35	30	31	33	39	54	53	52
Ingot.....	123	124	117	124	134	136	140	125	139	137	126	122	112	109	102	97	90	84	85	83	83
Total (Table 3, Item 23).....	216	217	205	218	287	275	282	267	303	307	283	278	274	272	264	238	223	230	242	232	232
Powder Plants ^(a)																					
Copper.....	19	19	18	25	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Alloy.....	2	2	2	3	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Ingot.....	2	2	2	3	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total.....	23	24	22	31	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Other Industries ^(a)																					
Copper.....	74	74	70	76	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Ingot.....	33	33	31	34	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total (Table 3, Item 29).....	106	107	101	110	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Miscellaneous and Discrepancies																					
Copper (Table 3, Item 29).....					106	80	72	78	87	81	69	67	73	77	70	86	89	74	56	41	40
All Industries																					
Copper.....	3,005	3,146	3,379	3,839	3,751	3,818	4,092	4,209	4,357	4,417	3,823	3,547	3,408	3,575	3,403	3,258	3,229	3,029	2,545	2,643	2,639
Alloy.....	288	320	331	373	285	294	300	307	320	336	288	303	273	291	280	274	254	228	233	237	233
Ingot (Table 3, Item 10) ^(b)	173	175	167	180	134	136	140	125	139	137	126	122	112	109	102	97	90	84	85	83	83
NET METAL CONSUMED (Table 3, Item 12).....																					
	3,466	3,641	3,877	4,392	4,170	4,248	4,532	4,641	4,816	4,890	4,237	3,972	3,793	3,974	3,785	3,629	3,573	3,341	2,863	2,963	2,956

Source: U.S. Department of the Interior, U.S. Geological Survey

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
(1) Bare Wire.....	192	188	213	290	310	290	300	320	330	340	310	290	270	260	255	225	200	175	170	165	160
(2) Telecommunications Cable.....	429	487	491	497	502	563	609	697	628	749	599	384	395	366	375	359	292	225	177	168	160
(3) Electronic Wire and Cable.....	170	176	192	228	207	202	241	241	246	290	232	178	238	255	256	265	290	210	155	150	145
(4) Building Wire.....	1,114	1,079	1,114	1,256	1,223	1,172	1,393	1,447	1,562	1,358	1,329	1,270	1,425	1,664	1,700	1,533	1,426	1,259	1,177	1,059	1,005
(5) Magnet Wire.....	500	540	568	659	672	714	719	700	778	714	615	573	561	570	532	536	493	443	400	380	360
(6) Power Cable.....	275	287	302	281	246	266	267	286	303	333	319	288	294	300	372	315	249	326	352	335	315
(7) Apparatus Wire and Cordage.....	175	175	212	237	184	210	211	229	235	250	216	185	193	140	140	89	86	124	102	100	95
(8) Automotive Wire and Cable (except Magnet).....	298	329	368	415	407	401	411	407	442	433	387	407	398	397	391	336	355	330	283	406	443
(9) Other Insulated Wire and Cable.....	82	80	80	85	70	85	89	85	56	69	80	80	82	85	93	119	90	54	43	40	38
(10) Total Insulated Wire and Cable.....	3,043	3,153	3,327	3,658	3,511	3,612	3,940	4,092	4,250	4,196	3,776	3,365	3,586	3,777	3,859	3,552	3,281	2,972	2,690	2,638	2,561
(11) Total Wire Mill Products (a).....	3,235	3,341	3,540	3,948	3,821	3,902	4,240	4,412	4,560	4,536	4,086	3,655	3,956	4,037	4,114	3,777	3,481	3,147	2,860	2,803	2,721
(12) Strip, Sheet, Plate and Foil.....	860	928	995	1,154	1,122	1,178	1,230	1,262	1,356	1,421	1,018	1,019	957	1,068	1,035	1,067	999	928	692	794	740
(13) Mechanical Wire (b).....	73	79	80	85	88	93	96	98	94	99	85	78	72	80	75	72	62	(b)	(b)	(b)	(b)
(14) Rod and Bar.....	881	985	970	1,085	1,053	1,096	1,193	1,190	1,238	1,247	1,025	1,038	965	1,059	1,032	1,022	882	808	562	675	675
(15) Tube and Pipe (c).....	859	919	964	1,091	1,097	1,200	1,184	1,244	1,285	1,266	1,202	1,197	1,182	1,233	1,256	1,080	953	812	619	607	608
(16) Total Brass Mill Products (page 19).....	2,673	2,911	3,009	3,415	3,360	3,567	3,703	3,794	3,973	4,033	3,329	3,332	3,177	3,439	3,397	3,241	2,896	2,548	1,873	2,076	2,023
(17) Total Foundry Products.....	385	380	375	397	380	381	382	383	384	385	300	270	250	230	225	215	200	180	160	150	145
(18) Total Powder Products.....	32	35	38	46	41	42	43	44	50	50	41	45	45	50	50	45	40	35	27	32	34
(19) Domestic Products - Total.....	6,325	6,667	6,962	7,806	7,602	7,892	8,368	8,633	8,986	9,004	7,756	7,302	7,328	7,756	7,786	7,279	6,617	5,910	4,919	5,061	4,923
(20) Net Imports of Mill Products (page 20).....	61	41	38	135	130	108	126	223	376	568	276	249	265	343	266	319	311	224	108	81	54
(21) Mill Products to Domestic Market.....	6,386	6,708	7,000	7,941	7,732	8,000	8,494	8,856	9,362	9,572	8,033	7,551	7,593	8,099	8,052	7,597	6,928	6,134	5,027	5,142	4,977
(22) Building Construction.....	2,635	2,702	2,825	3,179	3,111	3,221	3,455	3,635	3,900	3,918	3,584	3,532	3,640	4,035	4,071	3,721	3,405	3,025	2,420	2,285	2,185
(23) Electrical and Electronic Products.....	1,537	1,655	1,761	1,934	1,915	2,020	2,170	2,329	2,400	2,517	2,016	1,598	1,582	1,569	1,525	1,533	1,400	1,274	1,018	1,059	1,018
(24) Industrial Machinery and Equipment.....	820	858	825	962	919	946	972	965	1,005	965	749	729	697	682	701	682	575	494	432	430	371
(25) Transportation Equipment.....	715	774	878	959	819	841	875	855	915	894	718	754	749	978	961	883	811	702	621	768	815
(26) Consumer and General Products.....	620	638	611	776	741	761	811	875	930	1,085	810	776	773	836	794	778	737	639	536	601	589

Sources: Copper Development Association; Global Market Consultants, Inc.; U.S. Department of Commerce, Bureau of the Census; Metal Powder Producers Association.

Note: Totals 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.

* 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 & Cultery; Miscellaneous

Numbers may not sum due to rounding.

Table 4, Item 17.

Supply of brass mill products in the United States

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Strip, Sheet, Plate and Foil																					
Copper.....	256	274	291	343	364	383	405	435	477	531	390	363	341	390	391	394	378	343	224	240	236
Alloy.....	604	654	704	811	758	795	825	827	879	890	628	655	616	677	644	673	621	586	468	554	504
Total.....	860	928	995	1,154	1,122	1,178	1,230	1,262	1,356	1,421	1,018	1,019	957	1,068	1,035	1,067	999	929	692	794	740
Mechanical Wire																					
Copper.....	15	18	18	21	19	21	22	22	22	22	18	16	16	19	18	14	11	(a)	(a)	(a)	(a)
Alloy.....	58	61	62	64	69	72	74	76	72	77	67	62	56	61	57	58	51	(a)	(a)	(a)	(a)
Total.....	73	79	80	85	88	93	96	98	94	99	85	78	72	80	75	72	62	(a)	(a)	(a)	(a)
Rod and Bar^(a)																					
Copper.....	133	137	145	168	175	183	206	206	217	245	207	177	170	205	212	211	201	188	133	r	161
Alloy.....	748	848	825	917	878	913	987	984	1,021	1,003	818	861	795	854	820	812	681	620	428	515	508
Total.....	881	985	970	1,085	1,053	1,096	1,193	1,190	1,238	1,247	1,025	1,038	965	1,059	1,032	1,022	882	808	562	r	675
Tube and Pipe^(b)																					
Copper.....	798	853	905	1,028	1,037	1,143	1,129	1,188	1,247	1,234	1,180	1,178	1,168	1,218	1,243	1,066	940	800	610	r	596
Alloy.....	61	66	59	63	60	57	55	56	38	32	22	19	14	15	13	14	13	12	9	11	11
Total.....	859	919	964	1,091	1,097	1,200	1,184	1,244	1,285	1,266	1,202	1,197	1,182	1,233	1,256	1,080	953	812	617	r	608
All Mill Products																					
Copper.....	1,202	1,282	1,359	1,560	1,595	1,730	1,762	1,851	1,963	2,032	1,794	1,735	1,695	1,832	1,863	1,685	1,529	1,330	967	r	996
Alloy.....	1,471	1,629	1,650	1,855	1,765	1,837	1,941	1,943	2,010	2,001	1,535	1,597	1,482	1,607	1,534	1,556	1,367	1,218	906	1,080	1,023
TOTAL BRASS MILL	2,673	2,911	3,009	3,415	3,360	3,567	3,703	3,794	3,973	4,033	3,329	3,332	3,177	3,439	3,397	3,241	2,896	2,548	1,871	r	2,076
PRODUCTS																					

Sources: Copper Development Association; Global Market Consultants, Inc.

(a) - Copper and alloy rod and bar and mechanical wire data combined starting 2008.

(b) - Commercial tube and plumbing

Numbers may not sum due to rounding.

Table 4, Item 17a.

Supply of brass mill products in selected countries

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Belux.....	243	246	251	269	288	285	305	289	327	365	332	292	277	266	266	266	277	278	262.5	273	276
France.....	610	601	538	1,090	668	584	747	769	742	461	393	369	263	213	201	201	421	382	217.9	235	r
Germany.....	1,915	1,961	1,852	2,115	2,152	1,951	2,196	2,296	2,324	2,620	2,464	2,412	2,328	2,561	2,510	2,585	4,096	3,909	2,982.3	3,650	3,597
Italy.....	1,337	1,417	1,352	1,556	1,746	1,672	1,337	1,988	1,938	2,186	2,051	1,980	1,957	1,682	1,369	2,020	1,836	1,584	861.5	1,137	1,106
Japan.....	2,717	2,406	2,387	2,532	2,653	2,607	2,611	2,239	2,324	2,559	2,162	2,114	2,175	2,290	2,075	2,195	2,200	1,428	2,050.9	2,382	2,364
Mexico ¹	NA	NA	NA	309	208	163	179	329	346	340	311	307	311	319	276	229	258	232	235.5	r	251
Scandinavia.....	390	367	395	401	438	425	438	453	420	444	429	445	442	469	464	478	381	437	349.4	383	r
South Korea.....	365	354	569	241	291	307	373	524	640	669	675	708	723	701	720	720	823	757	749.1	787	r
Spain.....	189	199	178	212	228	211	233	262	285	291	218	250	213	166	194	185	194	198	203.8	225	r
Turkey.....	164	248	262	214	293	314	134	148	143	176	139	97	88	88	144	160	141	121	46.0	r	65
United Kingdom.....	454	421	432	463	492	452	440	409	385	403	178	162	NA	NA	NA	NA	NA	NA	NA	NA	NA
United States.....	2,673	2,911	3,009	3,415	3,360	3,567	3,703	3,794	3,973	4,033	3,329	3,332	3,177	3,439	3,397	3,241	2,896	2,548	1,873.4	r	2,076
PRODUCTS																					

Sources: World Bureau of Metal Statistics; U.S. Department of the Interior

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

¹ Mexico brass mill supply reported starting in 1994.

Numbers may not sum due to rounding.

Table 4, Item 21.

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011p
Imports of:																					
Bare Wire (including Stranded).....	8	19	44	12	12	15	24	118	162	200	40	47	50	42	56	39	38	43	29	36	40
Insulated Wire and Cable.....	90	95	104	127	165	176	213	273	305	356	324	297	314	334	405	418	417	362	282	319	332
Total Wire Mill Products (1)	98	114	148	139	177	191	237	391	468	555	364	344	364	376	461	457	455	405	311	356	372
Copper-Strip, Sheet, Plate and Foil.....	79	73	76	83	85	94	113	132	149	174	168	120	111	135	111	120	84	87	64	85	86
Rod and Bar.....	8	11	10	14	30	31	33	32	46	58	59	40	36	51	49	48	63	48	30	43	49
Tube and Pipe.....	36	39	43	66	76	121	122	123	149	180	166	170	188	227	225	285	259	262	189	158	127
Alloy-Strip, Sheet, Plate and Foil.....	84	76	73	85	81	83	84	99	104	155	120	115	93	118	95	92	74	61	43	65	62
Mechanical Wire.....	22	29	28	31	32	34	37	41	37	48	37	35	37	41	35	36	33	36	22	35	33
Rod and Bar.....	44	45	66	126	147	102	152	128	127	183	107	109	114	139	120	132	115	70	43	70	79
Tube and Pipe.....	51	55	61	71	70	55	60	56	69	75	71	71	68	77	66	59	51	52	32	40	41
Total Brass Mill Products	324	326	358	477	520	520	600	591	664	872	729	660	648	790	700	771	679	616	423	496	477
Total Powder Products	3	4	4	4	4	4	5	6	5	5	4	6	8	6	8	10	10	8	7	9	9
TOTAL IMPORTS	425	444	509	620	702	715	842	988	1,137	1,433	1,097	1,010	1,019	1,172	1,169	1,238	1,144	1,028	741	860	858
Exports of:																					
Bare Wire (including Stranded).....	46	64	74	48	32	37	65	71	80	113	93	104	82	99	107	102	103	88	66	88	91
Insulated Wire and Cable.....	138	151	201	198	253	278	316	333	355	398	412	370	362	379	392	423	367	400	336	437	455
Total Wire Mill Products (1)	184	215	275	247	284	315	381	403	435	511	504	475	444	478	498	525	470	488	402	525	546
Copper-Strip, Sheet, Plate and Foil.....	19	23	25	29	33	33	50	47	65	65	43	32	33	38	34	36	32	30	23	33	36
Rod and Bar.....	4	4	3	4	4	5	11	7	5	5	16	16	9	21	33	37	40	44	26	23	33
Tube and Pipe.....	45	44	42	43	48	55	55	61	58	76	68	71	81	70	80	76	77	48	51	40	48
Alloy-Strip, Sheet, Plate and Foil.....	34	33	39	59	69	79	81	121	73	77	67	52	63	72	96	81	72	71	57	63	55
Mechanical Wire.....	13	12	12	18	18	10	20	18	16	24	19	17	16	20	21	29	34	33	23	27	26
Rod and Bar.....	45	53	55	57	66	61	77	71	70	71	70	71	77	88	95	95	64	50	22	27	25
Tube and Pipe.....	13	13	13	21	39	39	31	23	24	22	20	14	17	21	18	16	18	16	15	16	15
Total Brass Mill Products	173	181	189	230	277	281	324	348	311	339	304	273	297	331	377	369	337	297	216	229	238
Total Powder Products	7	7	7	9	10	11	11	13	15	14	13	14	13	21	27	26	25	19	15	24	20
TOTAL EXPORTS	364	402	471	485	571	607	717	764	761	864	821	761	754	829	902	920	833	804	633	778	804
NET IMPORTS (Table 4, Item 21)	61	41	38	135	130	108	126	223	376	568	276	249	265	343	266	319	311	224	108	81	7

Sources: U.S. Department of Commerce, Bureau of the Census

p - preliminary, r - revised

(1) - In previous editions, 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. Numbers may not sum due to rounding.



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