

Mineral Industry Surveys

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TIN IN DECEMBER 2000

Domestic consumption of primary tin in December was estimated by the U.S. Geological Survey to be about 2% less than that in November and about 2% less than that in December 1999.

The Platt's Metals Week average composite price for tin in December was \$3.59 per pound, down just slightly from that in November and 7% less than that in December 1999. The December average price represents the lowest average monthly price for tin during 2000, a year in which the average monthly price declined in all but 2 months.

The German Government reportedly is considering extending its deposit system for beverage containers to include disposable steel (tinplate) and aluminum cans. According to the deposit proposal, a fee of 50 pfennigs (49 cents) would be imposed on each disposable can as well as on glass and plastic bottles. The deposit would be refunded when the container is returned. Glass or plastic bottles already carry a deposit of between 15 and 70 pfennigs each. Refillable bottles are cleaned and refilled by bottling companies. All other beverage packaging currently is discarded, although much of it enters the recycling chain. In Germany, over 90% of cans are made from steel, amounting to roughly 170,000 metric tons of tinplate. Recycling of tinplate is now at about 80% in Germany, the highest rate in Europe. Energy consumption in beverage can production has been reduced by 40% since 1990 (American Metal Market, 2001).

In Nigeria, reports indicated that the Malaysia Mining Corp. (MMC) may be close to signing an agreement with the Nigerian Mining Corp. (NMC). NMC is a government-owned entity that holds the leases to most mining rights in the country and manages controlling shares in Consolidated Tin Mines Ltd.(CTML). NMC officials acknowledged that Nigeria's tin properties require fresh investment and new technologies. MMC has been seeking new opportunities to invest in tin and other metal operations outside Malaysia and further utilize its lengthy mining experience (Metal Bulletin, 2001).

In Indonesia, Herald Resources Ltd. (Australia) announced discovery of significant tin mineralization during a drilling program at its Batu Besi property on Belitung Island. Tin values

in the range of 1.2% have been reported. The island has long been home to a major tin mining operation of PT Tambang Timah (Mining Journal, 2001).

It was reported that Tiberon Minerals Ltd. (Canada) has begun exploration work at a diverse metals deposit in the northern part of Vietnam. Along with tin, other discoveries at the Nui Phao site, about 80 km north of Hanoi, include bismuth, gold, and tungsten (CRU Tin Monitor, 2001).

An article in a recent periodical focuses on the history and promising current status of tin mining in Malaysia (E&MJ, 2000). The long, narrow, and highly productive Southeast Asian Tin Belt extends 1,350 miles over the entire length of the Malay peninsula. It includes parts of Burma and Thailand to the north, and Malaysia, and some western Indonesian islands to the south. The widest part of the Belt in Malaysia is 355 miles wide. The Malaysian portion of the Tin Belt contains about 40% "acid intrusives," presumably granite, mostly in three very long, irregular intrusive zones. These zones generally parallel the north-south trend of the peninsula. The largest of the three, in west-central Malaysia, extends 280 miles and into Thailand. It resembles the Sierra Nevada, CA, and the adjacent Coast Range, B.C., Canada, intrusive belts in western North America. Host rock for the Malaysian intrusive is mostly Paleozoic sedimentary rock with minor volcanics. Malaysian bedrock tin deposits are presumed to be closely associated with a small Permian-to-Triassic-age granite center within the three much larger regional granite masses.

Most of Malaysia's tin mines are in the States of Perak and Selangor. In an attempt to revitalize the tin industry, officials in Perak have been issuing mining licenses during the past year. However, government encouragement to find and develop tin prospects reportedly has been lacking in recent years. In 1989, the Government requested the United Nations to study the situation and make recommendations. In 1991, a UN report was submitted, and the Malaysian Federal Parliament took appropriate legislative and regulatory action in response. Because Malaysian States have autonomy over mining matters, however, the Federal initiatives must await acceptance by the States. Selangor and Sebah States

have already accepted the initiatives. The belief is that sufficient resources are available. Presumably, all that is needed to return Malaysia to prominence in tin mining is increased Government support for investment, exploration, and development in the mining sector.

Update

On February 2, 2001, the Platt's Metals Week composite price for tin was \$3.55 per pound.

References Cited

- American Metal Market, 2001, Germany may extend container deposits: American Metal Market, v. 109, no. 4, January 5, p. 10.
CRU Tin Monitor, 2001, Canadian Tiberon begins exploration: CRU International Ltd., February, p. 8.
E&MJ, 2000, Malaysian tin: E&MJ, v. 201, no. 12, December, p. 32-37.
Metal Bulletin, 2001, Malaysian Mining Corp. moves into Nigerian tin: Metal Bulletin, no. 8543, January 22, p. 9.
Mining Journal, 2001, Belitung tin discovery: Mining Journal, v. 336, no. 8615, January 5, p. 7.

TABLE 1
SALIENT TIN STATISTICS 1/

(Metric tons, unless otherwise noted)

	1999	2000		January- December
		November	December	
Production, secondary e/ 2/	16,300	900	900	10,800
Consumption:				
Primary	38,400	3,370 r/	3,310	42,000
Secondary	8,890	874 r/	838	10,700
Imports for consumption, metal	47,500	4,260	NA	NA
Exports, metal	6,770	653	NA	NA
Stocks at end of period	10,700	7,970 r/	8,140	XX
Prices (average cents per pound): 3/				
Metals Week composite 4/	365.98	361.05	359.43	XX
Metals Week New York dealer	254.54	247.00	245.56	XX
London, standard grade, cash	245.00	239.00	237.00	XX
Kuala Lumpur	240.70	236.92	236.25	XX

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to no more than three significant digits, except prices.

2/ Includes tin recovered from alloys and tinplate. The detinning of tinplate (coated steel) yields only a small part of the total.

3/ Source: Platt's Metals Week.

4/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges and a risk factor. It is normally substantially higher than other tin prices.

TABLE 2
METALS WEEK COMPOSITE PRICE 1/

(Cents per pound)

Period	High	Low	Average
1999:			
December	403.52	381.53	386.61
Year	403.52	343.72	365.98
2000:			
January	405.27	390.75	397.72
February	391.72	377.25	382.84
March	383.26	364.68	373.01
April	371.49	365.85	368.16
May	369.58	363.91	367.72
June	373.83	362.99	368.23
July	372.25	362.15	366.03
August	372.25	362.15	363.52
September	375.6	365.86	372.11
October	368.35	355.28	362.14
November	364.2	355.77	361.05
December	361.83	355.46	359.43

1/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges and a risk factor. It is normally substantially higher than other tin prices.

Source: Platt's Metals Week.

TABLE 3
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES 1/

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments 2/
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
1999	W	1,750,000	9,080	5.2	2,370,000
2000:					
January	W	141,000	718	5.1	184,000
February	W	144,000	785	5.5	175,000
March	W	155,000	810	5.2	203,000
April	W	149,000	736	4.9	170,000
May	W	156,000	816	5.2	219,000
June	W	149,000	795	5.3	203,000
July	W	165,000	780	4.7	182,000
August	W	157,000	795	5.1	214,000
September	W	145,000	761	5.3	203,000
October	W	138,000	724	5.2	194,000
November	W	113,000	650	5.7	179,000
December	W	107,000	646	6.0	NA

NA Not available. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to no more than three significant digits.

2/ Source: American Iron and Steel Institute monthly publication.

TABLE 4
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS 1/

(Metric tons)

Country or product	1999	2000		January- November
		October	November	
Imports:				
Metal (unwrought tin):				
Bolivia	3,850	597	201	6,140
Brazil	4,700	361	721	5,540
Chile	3,980	192	243	2,530
China	13,900	929	992	9,680
Hong Kong	261	--	--	397
Indonesia	7,930	439	400	4,980
Japan	282	--	--	9
Malaysia	944	--	10	114
Peru	11,000	1,220	1,470	12,000
Russia	--	--	--	145
Singapore	60	--	--	20
Thailand	20	--	--	--
United Kingdom	60	16	201	433
Other	533	44	31	385
Total	47,500	3,790	4,260	42,400
Other (gross weight):				
Alloys	3,090	506	349	3,900
Bars and rods	872	72	77	925
Foil, tubes, pipes	1	(2/)	--	(2/)
Plates, sheets, strip	122	4	14	587
Waste and scrap	2,730	170	366	2,200
Miscellaneous	2,290	466	1,100	8,300
Total	9,100	1,220	1,910	15,900
Exports (metal)	6,770	844	653	6,070

-- Zero.

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

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT 1/

(Metric tons of contained tin)

Product	2000							
	1999	November			December			January- December total 2/
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) 3/	W	107 r/	W	107 r/	98	W	98	1,430
Babbitt	1,610	W	W	W	W	W	W	249
Bar tin and anodes	718	25	W	25	24	W	24	294
Bronze and brass	3,410	107	107	214	70	102	172	2,790
Chemicals	8,220	682	W	682	682	W	682	8,180
Collapsible tubes and foil	45	W	W	W	W	W	W	W
Solder	18,700	1,040	417	1,460	1,060	391	1,450	16,900
Tinning	862	47	--	47	45	--	45	666
Tinplate 4/	9,150	650	--	650	646	--	646	9,020
Tin powder	W	W	--	W	W	--	W	195
White metal 5/	892	W	--	W	W	W	W	10
Other	3,620	112 r/	50 r/	162 r/	89	45	134	2,240
Total reported	47,300	2,770 r/	574 r/	3,340 r/	2,710	538	3,250	41,900
Estimated undistributed consumption 6/	--	600	300	900	600	300	900	10,800
Grand total	47,300	3,370 r/	874 r/	4,240 r/	3,310	838	4,150	52,700

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

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

2/ May include revisions for prior months.

3/ Includes terne metal.

4/ Includes secondary pig tin and tin components of tinplating chemical solutions.

5/ Includes pewter, britannia metal, and jewelers' metal.

6/ Estimated consumption of plants reporting on an annual basis.