

Mineral Industry Surveys

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TIN IN JANUARY, FEBRUARY, AND MARCH 2008

Domestic consumption of primary tin in March 2008 was estimated to be just slightly above that in February 2008 and 32% below that in March 2007. Consumption of primary tin for the first 3 months of 2008 was 29% lower than in the comparable period of 2007. For the first quarter of 2008, tinplate was the leading consumption category, followed closely by solder, and then chemicals.

The Platts Metals Week average composite price for tin in March 2008 was \$12.10 per pound, 14% above that in February 2008, and 41% above that in March 2007.

On December 21, 2007, the Defense National Stockpile Center (DNSC) announced that it had awarded about 4,000 metric tons (t) of refined tin to Traxys North America LLC (New York, NY) and Elmet S.A. de C.V. (Apodaca, Mexico) following its recent solicitation of bids for long-term sales contracts. The tin was to be drawn down from the Government stockpile during the next 6 months. These sales represented roughly one-half of the remaining tin held by the DNSC, with the balance likely to be disposed of in 2008 (CRU Tin Monitor, 2008).

ITRI Ltd. (Frogmore, United Kingdom) issued a new study "Tin to 2012," identifying the need for accelerated investment in new tin mine projects to meet future world demand. The report was the first tin annual review from the 75-year-old organization's recently established Statistics and Market Studies unit. According to the study, the tin market has been oversupplied during the past several decades, mostly as a result of successive booms in small-scale mining. However, increasing restrictions on these operations and strong growth in world consumption over the last decade have transformed the picture. Two countries, China and Indonesia, now account for more than 70% of global tin mine production. China was on the verge of becoming a net importer as its domestic demand ramped up, and small-scale production in Indonesia has declined. World tin consumption has increased at a rate of 4% a year in the last decade, a dramatic improvement on its long-term performance. Growth rates may dip over the next few years, partly because the transition to high content lead-free solders will probably slow and also because higher prices may constrain usage in both existing and potential new applications. In the next year or two,

world supply and demand for tin were expected to be fairly evenly balanced. ITRI forecasted that the tin market was likely to see a shortfall in new supply of 7,000 t in 2008, but existing stock levels were adequate to cover this. There was no shortage of tin, and the world's tin reserves were adequate to maintain long-term supplies, but supply problems could happen in 2010 to 2012 (Metals Place, 2008c).

Yunnan Tin Co., Ltd. (Kunming, Yunnan Province, China) (YTC) was the world's leading tin producer for a second straight year in 2007. YTC produced 61,000 t of refined tin in 2007, up by 17% from that produced in 2006, and just ahead of a provisionally reported 58,000 t by Indonesia's PT Timah Tbk. The YTC total includes production from its wholly owned Chenzhou Tin Smelter in Hunan Province and the Singapore Tin Industries Ltd. joint-venture refinery in Singapore. About one-third of YTC's tin production was used for downstream value-added products (Metals Place, 2008f).

Van Dieman Mines Plc (London, United Kingdom) announced that its Scotia tin-sapphire project in Tasmania, Australia, was expected to be in production by March 2008. The mine's startup, which was expected to produce 700 metric tons per year (t/yr) of tin-in-concentrates, had been delayed owing to permitting issues. A second tin project, the Endurance Tin Mine, with a similar capacity, was expected to be on stream by yearend 2008. The concentrates from both mines would be supplied to the Thailand Smelting and Refining Ltd. (Phuket, Thailand) tin smelter. The company controls further tin deposits in Tasmania, which it plans to develop later (CRU International, 2008).

The Minister of Mines in Congo (Kinshasa) announced the suspension of all mining activity in the tin-ore-rich Walikale district of North Kivu Province, a major source of tin exports, on February 25. The suspension was aimed at restoring order to Walikale's mining sector. The North Kivu Province has been the scene of conflict for more than a decade, with the Government's army and various illegal armed factions vying for control of lucrative mines. North Kivu Province and South Kivu Province reportedly exported a total of 7,000 t of tin ore in 2006, although some analysts estimate the figure at 12,000 t (Metals Place, 2008b).

In Thailand, rising demand for steel cans has prompted investment plans by the country's two tinplate producers. The country's largest producer, Thai Tinplate Manufacturing Co. Ltd. (Samut Prakam, Thailand), announced plans to spend \$6 million to increase its tinfree steel production capacity by 30% to 156,000 t/yr by yearend 2008. The company also operated three tinplate lines with a combined capacity of 400,000 t/yr. The second tinplate producer, Siam Tinplate Co. Ltd. (Bangkok, Thailand), was proceeding with the construction of a second tinplate line, due to be completed by July 2009, which would increase its capacity to 270,000 t/yr. Analysts estimate the Thai tinplate market to have been 570,000 t in 2007 and projected it to be 700,000 t in 2011 (Metals Place, 2008e).

Metals X Ltd. (East Perth, Australia) announced plans to restart its Renison Tin Mine in Tasmania by June 2008. The company forecast that Renison would produce 8,500 t of tin-in-concentrates by 2009. A feasibility study on tailings treatment at Renison, which could yield another 5,500 t/yr, was due to be completed by late 2008. Metals X also announced the closure of its Collingwood Tin Mine in early 2008, which produced 2,000 t of tin-in-concentrate in 2007 (Metals Place, 2008d).

Empresa Metalurgica Vinto (Oruro, Bolivia) signed contracts with Ausmelt Ltd. (Melbourne, Victoria, Australia) for the construction of a new tin smelter at Vinto's Oruro plant. A contract for \$2 million was already signed and a second one for \$3 million for equipment and services was expected to follow shortly. The new Ausmelt tin smelter would have a capacity of 38,000 t/yr of tin concentrate, or 18,000 t/yr of refined tin metal. This would be the second Ausmelt plant to be installed by a major South American tin producer. Funsur S.A. (Pisco, Peru) installed one about 5 years ago. China's YTC also uses the

Ausmelt process. Vinto officials noted that this would be the first major modernization at the facility since it was built 30 years ago. The Ausmelt furnace would replace existing reverberatory furnaces. Vinto produced 9,400 t of refined tin in 2007 (Metals Place, 2008a).

Update

On February 27, 2009, the Platts Metals Week composite price for tin was \$6.88 per pound.

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TABLE 1
SALIENT TIN STATISTICS¹

(Metric tons, unless otherwise noted)

	2007 ^P		2008			
	Year	December	January	February	March	January- March
Production, secondary ^{6, 2}	11,900	966 ^r	994	994	994	2,980
Consumption:						
Primary	23,700	2,720	1,930	1,900	1,910	5,740
Secondary	7,490	908	723	726	720	2,170
Imports for consumption, metal	34,600	1,800	2,950	4,630	2,660	10,200
Exports, metal	6,410	612	829	1,040	845	2,710
Stocks at end of period	9,100	1,690 ^r	8,070	8,280	8,020	XX
Prices (average cents per pound) ³						
Metals Week composite ⁴	899.48	1,007.33	1,004.58	1,054.61	1,206.50	1,083.40
Metals Week New York dealer	679.48	759.75	764.02	804.06	921.39	830.82
London, standard grade, cash	659.00	737.18	740.05	779.68	897.80	801.82
Kuala Lumpur	658.42	744.39	738.62	777.45	897.30	800.40

⁶Estimated. ^PPreliminary. ^rRevised. XX Not applicable.

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

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

³Source: Platts Metals Week.

⁴The 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 PRICE¹

(Cents per pound)

Period	High	Low	Average
2007:			
December	1,041.25	982.73	1,007.33
Year	1,056.54	655.02	899.48
2008:			
January	1,031.54	988.63	1,004.58
February	1,138.12	1,023.31	1,054.61
March	1,255.43	1,147.64	1,206.50

¹The 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: Platts Metals Week.

TABLE 3
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES¹

(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)	
2007:					
December	4,500 ^r	143,000 ^r	366 ^r	2.0 ^r	169,000
Year	58,900	1,780,000	7,010	3.9	1,770,000
2008:					
January	3,350	166,000	532	3.2	140,000
February	2,440	166,000	510	3.1	143,000
March	2,230	175,000	524	3.0	172,000

^rRevised.

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

²Source: American Iron and Steel Institute monthly publication.

TABLE 4
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS¹

(Metric tons)

Country or product	2007		2008			January- March
	Year	December	January	February	March	
Imports:						
Metal (unwrought tin):						
Bolivia	4,340	830	230	981	20	1,230
Brazil	2,600	126	176	151	151	478
China	4,230	339	205	179	458	842
Indonesia	1,680	--	91	--	221	312
Malaysia	14	--	--	--	--	--
Netherlands	100	--	--	--	--	--
Peru	18,700	480	2,210	3,320	1,710	7,230
Singapore	1,730	25	25	--	--	25
Taiwan	15	--	6	--	--	6
United Kingdom	881	--	--	--	100	100
Other	299	(2) ^r	7	1	--	8
Total	34,600	1,800	2,950	4,630	2,660	10,200
Other (gross weight):						
Alloys	1,940	76	81	123	211	415
Bars and rods	3,840	247	316	536	345	1,200
Foil, tubes, pipes	--	--	--	--	--	--
Plates, sheets, strip	--	--	--	--	--	--
Waste and scrap	10,200	1,220	3,890	2,470	2,130	8,490
Miscellaneous	3,780	247	202	191	270	663
Total	19,800	1,790	4,490	3,320	2,960	10,800
Exports (metal)	6,410	612	829	1,040	845	2,710

^rRevised. -- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT¹

(Metric tons of contained tin)

Product	2007				2008										
	Year	December			January			February			March			January- March	
		Primary	Secondary	Total	Primary	Secondary	Total	Primary	Secondary	Total	Primary	Secondary	Total		
Alloys (miscellaneous) ²	W	131	--	131	128	W	128	124	W	124	124	W	124	437	
Babbitt	604	17	3	20	21	W	21	19	W	19	20	W	20	115	
Bar tin and anodes	788	22	W	22	18	--	18	18	--	18	18	--	18	53	
Bronze and brass	2,800	107	108	215	110	101	211	105	103	208	106	98	203	623	
Chemicals	6,070	617	W	617	242	W	242	242	W	242	242	W	242	734	
Collapsible tubes and foil	W	W	W	W	W	W	W	W	W	W	W	W	W	W	
Solder	10,400	624	492	1,120	203	277	480	207	277	484	205	277	483	1,450	
Tinning	451	48	--	48	27	--	27	28	--	28	28	--	28	83	
Tinplate ³	7,010	520	--	520	532	--	532	510	--	510	524	--	524	1,570	
Tin powder	W	W	--	W	18	W	18	18	--	18	18	W	18	57	
White metal ⁴	W	W	--	W	W	W	W	W	--	W	W	W	W	W	
Other	3,000	33	5	38	30	45	75	29	45	74	29	45	74	94	
Total reported	31,100	2,120	608	2,730	1,330	423	1,750	1,300	426	1,730	1,310	420	1,730	5,210	
Estimated undistributed consumption ⁵	--	600	300	900	600	300	900	600	300	900	600	300	900	2,700	
Grand total	31,100	2,720	908	3,630	1,930	723	2,650	1,900	726	2,630	1,910	720	2,630	7,910	

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

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

²Includes terre metal.

³Includes secondary pig tin and tin components of tinplating chemical solutions.

⁴Includes pewter, britannia metal, and jewelers' metal.

⁵Estimated consumption of plants reporting on an annual basis.