

# Mineral Industry Surveys

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## TIN IN JUNE 2010

Domestic consumption of primary tin in June 2010 was estimated to be 2,010 metric tons (t), slightly less than that in May 2010, and 11% higher than that in June 2009. For the first 6 months of 2010, imports of refined tin were 14,300 t, a 22% decrease from those in the comparable period of 2009. Peru, Bolivia, and Indonesia, in decreasing order, were the leading sources of tin imports in the first 6 months of 2010.

The Platts Metals Week average composite price of tin in June 2010 was \$10.62 per pound, compared with \$10.79 per pound in May 2010 and \$9.25 per pound in June 2009.

According to industry sources, Novosibirsk Integrated Tin Works (NOK) (Novosibirsk, Russia), Russia's sole refined tin producer, was seeking to declare bankruptcy. Reportedly NOK's total debt was \$38 million, of which over one-third was overdue. NOK's refined tin production has steadily declined to very low levels in recent years, as most tin mines in Russia have closed. According to the World Bureau of Metal Statistics, Russia's refined tin production in 2009 was only 1,020 t, while mine production of tin-in-concentrates was just 611 t (CRU International Ltd., 2010).

Highlights from ITRI Ltd.'s (Frogmore, United Kingdom) International Tin Conference (CRU Tin Monitor, 2010b) held in Vancouver, British Columbia, Canada, in May included:

- China has rapidly transformed from a large net exporter of tin to a net importer, with supply increasingly constrained by raw materials availability, despite increased recycling. Other emerging economies, such as India, had significant potential to increase their per capita usage.
- Tin consumption began to show signs of improvement in 2010. Global solder shipments in the first quarter of 2010 were 55% higher than in the depressed first quarter of 2009. However, there were some concerns about tin use—there was a strong risk of substitution in PVC stabilizers.
- Investment in new mine production capacity is spotty. Yunnan Tin Corp. (Kunming, Yunnan Province, China), PT Timah Tbk (Bangka, Indonesia), Minsur S.A. (Lima, Peru), and Metals X Ltd. (East Perth, Western Australia, Australia) have made substantial

investments in future supply, and some new producers like Silver Standard Resources Inc. (Vancouver, British Columbia, Canada) in Argentina and JSC Syrymbet (Almaty, Kazakhstan) could start up within the next 2 years. However, most other projects discussed have not even reached the feasibility study stage, and junior mining companies face considerable financing problems in the current climate.

- Artisanal mining and “conflict minerals” remain in the spotlight. Artisanal and small-scale tin mining, which accounts for one-half of current world tin mine supply, can be seen as a development opportunity and a means of breaking out of the poverty cycle for undeveloped countries. There was growing pressure from non-Government organizations and Governments to restrict tin supply from some sources, notably parts of Congo (Kinshasa), as part of the “conflict minerals” situation.

All the assets controlled by Van Dieman Mines Plc (North Sydney, New South Wales, Australia) in Tasmania have been put up for sale. The company filed for bankruptcy in February 2009 following continuing start-up problems, and its major shareholder would not supply additional funds. The firm's Endurance and Scotia projects had a planned production capacity of 1,300 metric tons per year (t/yr) of tin-in-concentrates (CRU Tin Monitor, 2010a).

Empresa Minera Huanuni (Oruro, Bolivia) began a tender process for the construction of a much larger tin concentrator that would increase ore throughput to 3,000 metric tons per day (t/d) from 1,200 t/d. The expansion plan was originally approved in 2009. The expansion project will require a \$40 million investment, to be provided by the company that wins the tender and Government-owned mining organization Corporación Minera de Bolivia (La Paz, Bolivia). The Huanuni tin mine produced almost 10,000 t of tin-in-concentrates in 2009 (CRU Tin Monitor, 2010a).

Stellar Resources Ltd. (Henderson, NV) announced that it began to develop the Heemskirk tin project in Tasmania, Australia. A drilling program would focus on the shallow Queen Hill tin deposit, which would provide the data needed to develop a mineral resource estimate. Stellar's joint venture partner was

Gippsland Ltd. (Claremont, Western Australia, Australia). Queen Hill and associated deposits have a total resource of 50,000 t contained tin, and Stellar was anticipating an underground mine with a 500,000-t/yr ore production capacity. The operation would be capable of producing 3,500 to 4,500 t/yr of tin-in-concentrate (ITRI Ltd., 2010).

#### **Update**

On October 29, 2010, the Platts Metals Week composite price for tin was \$15.60 per pound.

#### **References Cited**

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- ITRI Ltd., 2010, Heemskirk project revived: Frogmore, United Kingdom, ITRI Ltd. news release, June 28. (Accessed July 1, 2010, at [http://www.itri.co.uk/pooled/articles/BF\\_NEWSART/view.asp?Q=BF\\_NEWSART\\_319867](http://www.itri.co.uk/pooled/articles/BF_NEWSART/view.asp?Q=BF_NEWSART_319867).)

TABLE 1  
SALIENT TIN STATISTICS<sup>1</sup>

(Metric tons, unless otherwise noted)

	2010			
	2009 <sup>p</sup>	May	June	January - June
Production, secondary <sup>e, 2</sup>	11,500	955	955	5,730
Consumption:				
Primary	21,100	2,020	2,010	12,200
Secondary	10,800	646	645	3,890
Imports for consumption, metal	33,000	1,710	2,740	14,300
Exports, metal	3,170	775	345	2,600
Stocks at end of period	XX	7,180	7,270	XX
Prices (average cents per pound): <sup>3</sup>				
Metals Week composite <sup>4</sup>	837.08	1,078.52	1,061.52	XX
Metals Week New York dealer	641.62	824.88	814.28	XX
London, standard grade, cash	615.15	796.07	798.92	XX
Kuala Lumpur	609.34	802.12	784.13	XX

<sup>e</sup>Estimated. <sup>p</sup>Preliminary. XX Not applicable.

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

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

<sup>3</sup>Source: Platts Metals Week.

<sup>4</sup>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<sup>1</sup>

(Cents per pound)

Period	High	Low	Average
2009	1,030.42	647.98	837.08
2010:			
January	1,109.84	1,054.27	1,087.07
February	1,042.04	937.69	1,008.92
March	1,108.16	1,041.15	1,073.64
April	1,162.79	1,110.30	1,142.59
May	1,113.10	1,055.20	1,078.52
June	1,106.45	981.80	1,061.52

<sup>1</sup>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: Platts Metals Week.

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

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments <sup>2</sup>
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
2009	14,500	1,150,000	6,200	5.4	1,540,000
2010:					
January	983	97,400	470	4.8	152,000
February	1,090	91,800	456	5.0	153,000
March	1,270	92,400	472	5.1	211,000
April	1,660	94,200	470	5.0	172,000
May	1,030	97,600	461	4.7	166,000
June	1,280	129,000	455	3.5	168,000

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

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

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

(Metric tons)

Country or product	2009	2010		
		May	June	January - June <sup>2</sup>
Imports:				
Metal (unwrought tin):				
Bolivia	6,300	20	709	2,490
Brazil	1,050	--	--	75
China	1,210	121	78	394
Indonesia	3,220	299	348	1,900
Malaysia	169	--	--	75
Peru	20,300	1,050	1,370	8,300
Singapore	451	95	120	487
Thailand	15	--	--	50
Other	343	121	124	517
Total	33,000	1,710	2,740	14,300
Other (gross weight):				
Alloys	1,230	116	97	537
Bars and rods	3,020	238	248	1,710
Foil, tubes, pipes	55	5	5	36
Plates, sheets, strip	3,370	--	4	108
Waste and scrap	80,600	5,200	4,050	30,800
Miscellaneous	3,830	250	267	1,460
Total	92,100	5,810	4,670	34,700
Exports (metal)	3,170	775	345	2,600

-- Zero.

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

<sup>2</sup>May include revisions to previous month(s) data.

Source: U.S. Census Bureau.

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

(Metric tons of contained tin)

Product	2009 <sup>P</sup>	2010						January - June <sup>2</sup>
		May			June			
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) <sup>3</sup>	1,910	237	W	237	308	W	308	1,590
Babbitt	427	17	W	17	15	W	15	113
Bar tin and anodes	270	20	--	20	20	--	20	120
Bronze and brass	2,110	87	85	171	85	83	168	1,000
Chemicals	3,080	324	W	324	258	W	258	1,940
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	6,210	201	237	438	196	237	432	2,610
Tinning	318	29	--	29	33	--	33	169
Tinplate <sup>4</sup>	6,200	461	--	461	455	--	455	2,790
Tin powder	193	15	W	15	15	W	15	96
White metal <sup>5</sup>	W	W	W	W	W	W	W	W
Other	379	28	25	52	28	25	53	236
Total reported	21,100	1,420	346	1,760	1,410	345	1,760	10,700
Estimated undistributed consumption <sup>6</sup>	10,800	600	300	900	600	300	900	5,400
Grand total	31,900	2,020	646	2,660	2,010	645	2,660	16,100

<sup>P</sup>Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

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

<sup>2</sup>May include revisions to previous month(s) data.

<sup>3</sup>Includes terne metal.

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

<sup>5</sup>Includes pewter, britannia metal, and jewelers' metal.

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