Tin: in deficit but not immune to market doldrums

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THIS week Allan Trench takes a quick look at tin – a metal in deficit but with a price still in the (relative) doldrums.

There is still much to like about tin.

The green metal remains the most valuable of the mainstream London Metal Exchange-traded commodities with a price around $US23,000 per tonne. That said, the crisis in the financial markets caused by sovereign debt management issues in the US and the eurozone that has impacted base metals markets in August has seen tin prices test the downside at $22,000/t. Tin has been amongst the worst hit of LME metals.

Tin miners, explorers and aspiring producers have much to look forward to, however.

The likes of Consolidated Tin Mines (CSD), Kasbah Resources (KAS), Venture Minerals (VMS), Outback Metals (OUM) and obviously Metals X Limited (MLX) will not be deterred by the recent price setback. Similarly Minemakers (MAK) deferred plans to list spin-off TNT Mines (TNT) should proceed apace once IPO conditions improve.

Tin guru Peter Kettle* advises the following market update in the August CRU Group tin market monitor:

- Near-term over-supply has been caused by a temporary concentration of stocks in or around exchange warehouses as a result of de-stocking in China and (to a lesser extent) Indonesia.

- Once there is some stability around the LME we are likely to see China come back into the market as a buyer. After a thorough review of the supply/demand numbers we still believe that world tin production will fall short of usage in 2011, with a further deficit in 2012 likely.

- The domestic tin price in China has been much stronger than the LME price recently. Support for the Chinese price has come from supply constraints rather than strong demand. Most secondary smelters in China said their raw material and products stocks had decreased because of a lack of scrap in recent months.

- Secondary production accounts for about 30% of total Chinese refined tin output. Usually, the secondary smelters will cut prices first when the LME price collapses. But currently they are not competing to sell because of low stocks, while the big primary smelters have been waiting to adjust prices once the market situation has become clearer.

- Production in Peru has fallen sharply this year, as a result of the enforced cut-back in mine production at Minsur’s San Rafael operation while an official report on its tailings storage facilities was carried out.

- Tin industry group ITRI has reduced estimates of Central African tin production, although there are few hard numbers available to measure artisanal mining activity in the Democratic Republic of the Congo and neighbouring countries. There is still no clarity over the legal acceptability of African ore, although the latest information suggests that the US SEC will publish the ‘rules’ of the US conflict minerals law around the end of August. This is when the law will effectively come into force and companies operating or based in the US will need to start considering the need to disclose the source of metals/minerals used in their products.

- ITRI has taken a conservative view of consumption prospects, but still see an underlying deficit between world tin use and production.

Tin: Some Key Facts & Figures:**

Demand: The global refined tin market is anticipated to comprise some 365,000t in 2011. China is the world’s largest consumer (and producer). Tin demand is split across several end use sectors, of which solder is the largest use, both for electronic and industrial applications. Indeed, use as solder comprises just over half the total consumption of tin. Tinplate, chemicals and brass/bronze make up the balance of demand, along with a plethora of minor uses.

Indicative Price: Tin has competed with nickel in recent years for the title of the highest priced of the LME metal contracts. Prices peaking at over $US27,000/t in 2010 were well above recent historic levels – reflecting a lack of new investment in supply development over the past decade – although all-time highs in inflation-adjusted terms were over $40,000/t in the early 1980s.

Supply: Yunnan Tin of China is the largest producer of tin globally at around 55,000t per annum. Yunnan Chengfeng and China Tin are also significant Chinese producers at around 15,000tpa each. Indonesia is host to the world's second largest integrated producer, PT Timah. Malaysia Smelting Corporation ranks third in terms of production, alongside Minsur of Peru, both producing 35,000-40,000 tpa.

Market: Tin is the smallest of the LME non-ferrous metal contracts. The Kuala Lumpur Tin Market also serves as a pricing reference point in some Asian markets.

Geology: Cassiterite (SnO_2) is the main ore mineral of tin, with ore found either as primary deposits in veins or lodes or in reworked secondary deposits as alluvials. Hard rock deposits are worked typically as underground mines whereas alluvial deposits are dredged and pumped to recover the ore.

Key countries of supply: China, Indonesia, Malaysia, Bolivia and Peru. Australian supply has traditionally been dominated by the Renison mine.

Grades: Alluvial deposits can be more economic at lower grades than hard-rock vein-style deposits due to the lower mining and milling costs involved in their extraction. Alluvial grades below 0.5% are common whereas underground hard-rock mines have historically required grades exceeding 1% tin. However with the rise in prices in 2008-2011, hard-rock mines with grades as below 0.4% become potential new entrants to the supply-side, especially if there are valuable co-products or by-products.

Metallurgy: Processing is first to tin concentrate by gravity concentration and flotation and then via smelting and refining to final metal of LME grade. Smelting takes place with coal or fuel oil and limestone (as flux) and/or sand may be added to react with impurities in the concentrate.

Strictly Boardroom will return with more Adventures of Tin Tin – and other lesser known metals – in the near future.

Good Hunting.

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