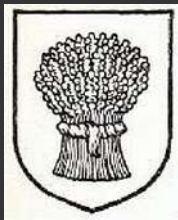


Antimony

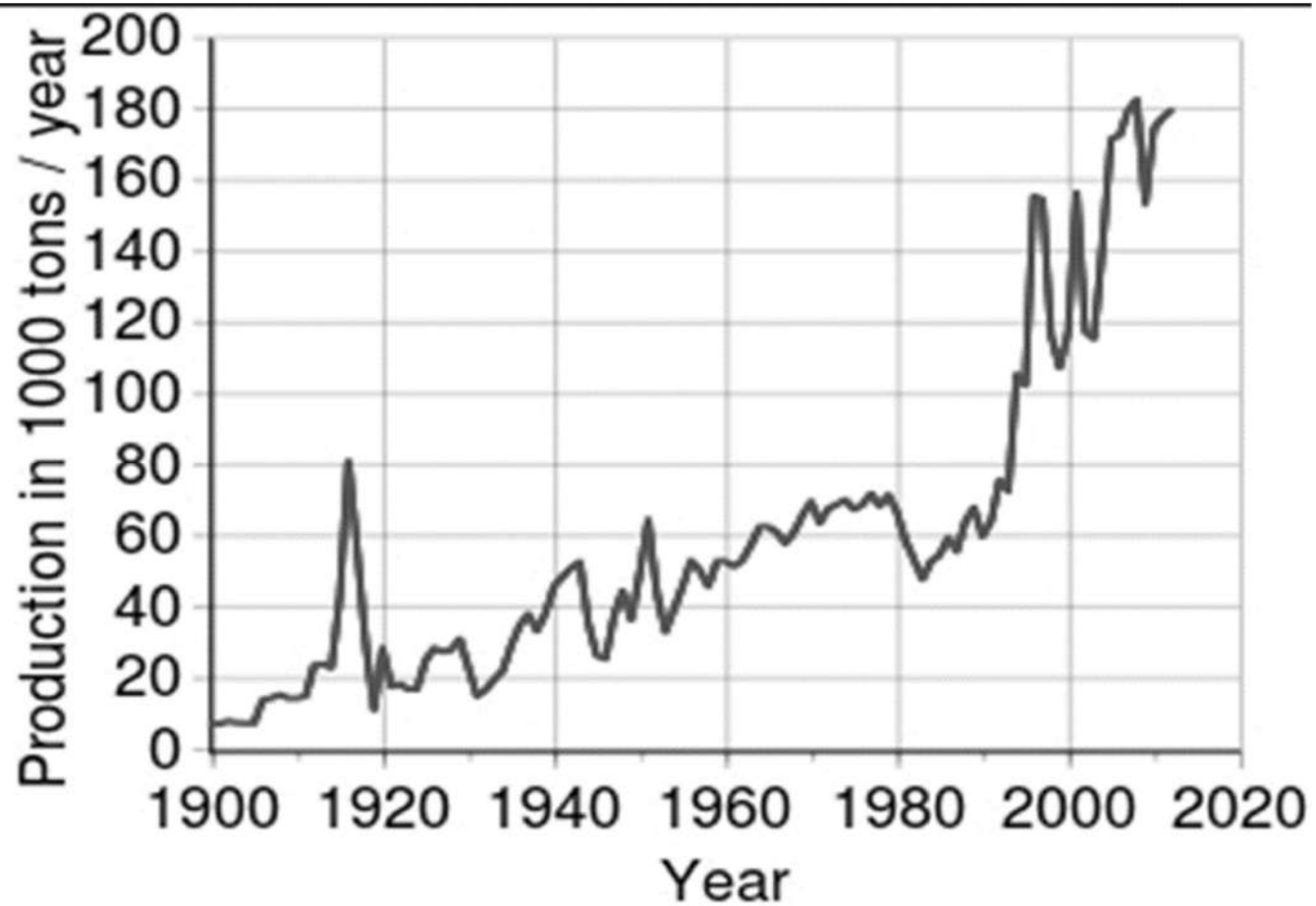
Panic in the Henhouse?

September 2024



CHRISTOPHER ECCLESTONE:
HALLGARTEN + COMPANY

A Clearer Trend



Out of the Shadows



Antimony has been largely unsexy and unloved, and definitely low-profile.

Absence of major wars meant the strategic stockpiles of the US, Russia and China went largely untouched and unnoticed. Definitely not requiring “topping up”. Peace dividend!

Antimony’s military usages include as an alloy in small arms ammunition, buckshot and tracer ammunition.

The price spike of 2013-14 created a *frisson* then it was business as usual as thrifting deflated the demand somewhat.

This only served to cover what was a severely declining internal production in China that was disguised by imports of artisanally sourced material (Bolivia, Laos, Honduras etc) and arguably “conflict minerals” from Burma.

The pandemic threw back the curtains to expose the real supply/demand imbalance.



An interesting source....



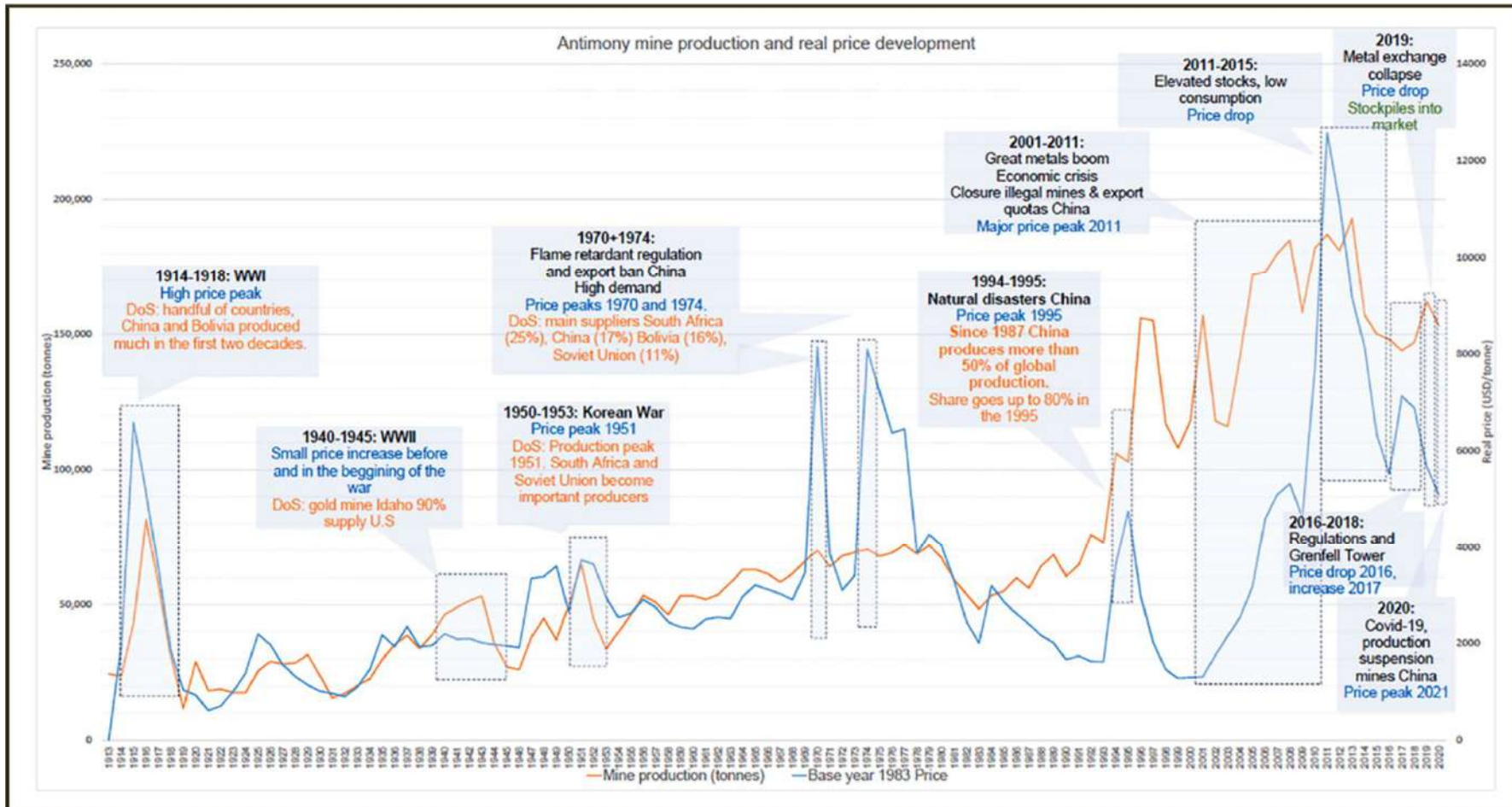
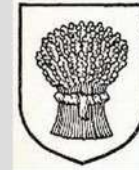
This paper should be *de rigueur* reading for all those in the Antimony space:

Resilience in the antimony supply chain

Susan van den Brink, Ren'e Kleijn, Benjamin Sprecher, Nabeel Mancheri & Arnold Tukker

in Resources, Conservation & Recycling 186 (2022) 106586

Long-term Antimony Pricing



Ten “Disruptions” plus.....

- First World War – 1914-18
 - Second World War – 1939-46
 - Korean War – 1950-53
 - The Rise of Flame Retardants – 1970-74
 - Natural Disasters – China – 1994-95
 - Mine/Smelter closures – China
 - Elevated stocks – Low Consumption
 - Regulations & Grenfell Tower
 - FANYA Exchange collapse
 - COVID production restrictions – shipping disruptions
-
- And now – China export “controls”

The Wars

War is the great swing factor in Antimony demand. There is no other application that disturbs the water like war for this metal in particular (though also for Tungsten).

A review:

WW1 – Combattant Europe had spotty internal production, mainly from France. Product had to be obtained from farther afield i.e. China (though also Iberia). Impossible to impose price controls on a metal that had to be bought in from non-combattants that wanted to profit from surging demand.

WW2 – More of a total global war. China could not supply West due to Japanese occupation. Sources were even more tenuous e.g. Bolivia, Argentina. Germans sourcing from occupied Serbia. US developed its own internal source (ie. Idaho). Prices did not spike so much due to anti-profiteering controls being more effective.

Korea – Much WW2 production had been shuttered. China supplying the North Korean side in the war. Serbia and Slovakia had been moved into Eastern Bloc.

The Post-War Boom

Peace brings its own demand, with.....

- The rise of Flame Retardants giving Antimony an entirely new *raison d'être*
- Rising car ownership pushing lead acid battery demand

Gradually, prices firming up and production rises, particularly as China recovers from some of its self-imposed “own goals” such as Great Leap Forward and Cultural Revolution.

Then.... China decides it wants the whole farm... sinks the Antimony price in early 1980s and kills most Western production. Eastern Bloc (Comintern) soldiers on to 1989 – early 1990s then likewise collapses.

Western environmental regulations kill most smelting capacity in the West.

China now “owns” the Antimony space. Cheap is the watchword.

The China Ascendancy & Decline

Twinkling Star, plus low labour costs and slack environmental regulations gave China an innate advantage over the West.

We are not persuaded that “natural disasters” were a valid reason for price upticks or supply constrictions. Two actions caused production reductions in China. In March 2010, the government froze approval of any new projects for antimony mining, then the Government shut down about 100 antimony smelters (according to the USGS) in China’s dominant antimony-producing region, an action aimed at “closing illegal mines and curbing pollution”.

Chinese annual production was said to represent one sixth of its total reserves. As usual one needs to take both production and reserve numbers for China with the usual caveats. For the informed, it was clear that Twinkling Star was past its prime and in ultimate decline.

The FANYA Exchange collapse was an interesting event, but it was mainly psychological. It put in the freezer a certain amount of Antimony (18,661 tonnes) for a number of years, and this had a numbing effect, dangling a Damoclean sword over the market. In the final wash, much ado about nothing.

Pandemic & Strife

As mentioned, Twinkling Star was past its prime and in ultimate decline.

There has been increasing dependence upon artisanal sources and Burma.

China has never confessed its dependence upon these sources. Production out of Burma (largely uncounted and undocumented) was estimated by DERA to be as high as 14,000 tpa ten years ago.

The pandemic disrupting global made the far-flung sources such as Honduras, Bolivia and maybe Peru, more problematic. The coup in Burma was regarded as pro-China but rebel states were not playing ball with China, while Chinese *Gastarbeiter* were thwarted by the Zero Covid policy.

Then came the wars. Polyus was supposed to be doing its own roasting then exporting the output but, in our humble view, the export plan was thwarted by the Ukraine war which necessitated diversion of exports to the domestic munitions industry.

Meanwhile, a mystery buyer in the US, would appear to be the US DoD returning to stockpiling but also replacing munitions used up in supporting Ukraine's defence.

Expectations & Their Management

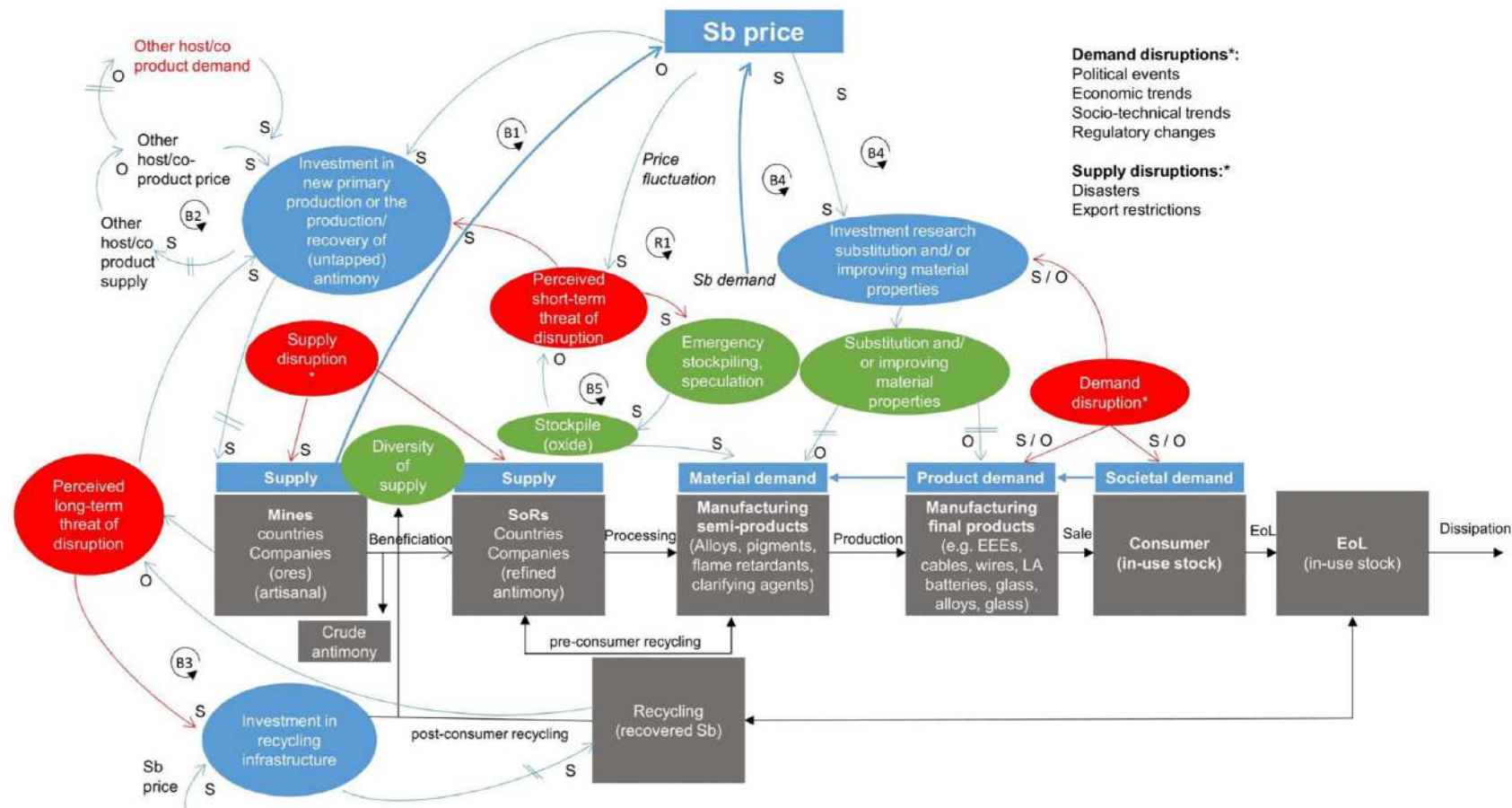
The expectations of moves in Antimony supply & demand (and the management thereof) is enough to send one's brain into meltdown.

On the following page is a sort of decision tree on how one assesses the inputs and outputs to that thought process, No wonder people are confused....

The Decision Tree for Sb

S. Brink et al.

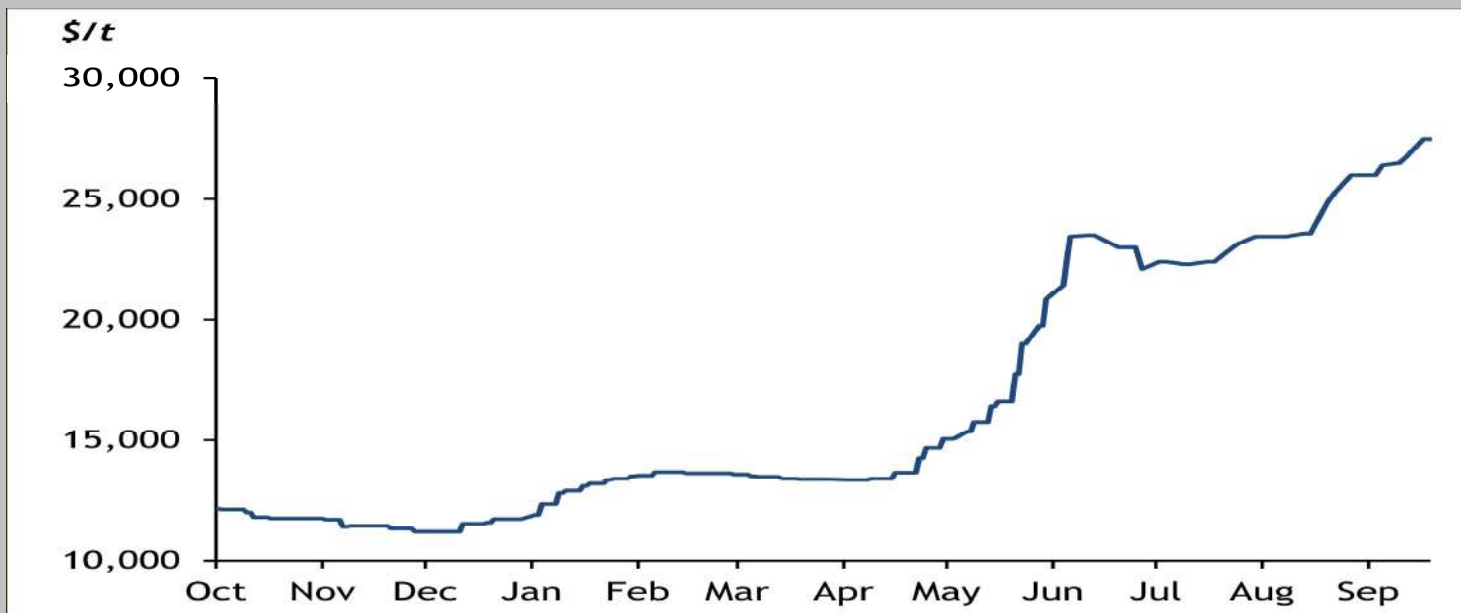
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The Chinese Export “Ban”

A surprise, and yet not a surprise.

Our thought on the matter is somewhat akin to when Henry Kissinger asked Premier Zhou Enlai for his opinion on the French Revolution. Zhou replied: "It's too early to say."



Source: Argus Metals

Back at the Henhouse

The short-term result – a flurry of carpetbaggers, who'd never heard of Antimony two months ago, are now scurrying to find projects, seemingly ignorant of the realities of Antimony supply/demand, mining or processing and, ultimately, the difficulties of formulating a resource.

The realities:

- ❖ Costerfield with declining production
- ❖ Stibnite (Idaho) is years from production
- ❖ Hillgrove – the challenging metallurgy
- ❖ ConsMurch – tailings with arsenic
- ❖ UAMY – dependent upon Stibnite mine

Sigh.....