

## Wide gap in Zinc TCs reflect market near its turning point

After some delay, the 2018 annual zinc concentrate treatment charges have been agreed down to 15% YoY. The gap from decade lows in spot charges has hit extremes and reflects expectations that mine supply will soon loosen significantly

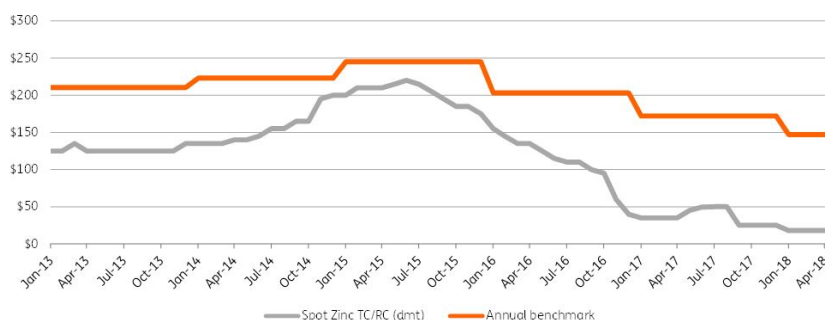


Source: Shutterstock

## Wide gap between annual and spot zinc concentrate treatment charges (\$/dmt)

Treatment and refining charges (TC/RC) reflect the fee deducted from the concentrate value by the smelter. Higher TC's mean more profit for smelters and less for miners. The fees reflect the availability of raw materials (concentrate) vs smelter capacities.

Annual Zinc TC/RC's vs spot terms:



Source: Asia Metal, ING Research

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## Drawn out negotiations reach a close

Nyrstar has today reported the 2018 annual benchmark for zinc concentrate charges at \$147/dmt which is a 15% decrease from last years \$172/dmt.

Negotiations have been dragged out for far longer than usual this year given the broad disagreement on this year's fundamentals. Miners have pointed to spot charges that are currently the lowest in over a decade. Indeed compared to the \$18/dmt spot charge the gap from the benchmark, even given this recent reduction, is at extremes. Also widely contested, is that zinc smelters only pay for 85% of the contained metal in concentrate, compared to 95% in copper. That status quo stems from historical recovery rates not reflective of today's smelters, but reports of the miner's attempts to change those terms have once again failed.

Compared to spot terms, and original reports of miners bidding as low as \$90/dmt, zinc smelters may have fared better than expected, although the flip side of the argument is that 2018 will very much be a year of two halves as mine supply is expected to rebound considerably. ING identifies +400kt from just new mines/expansions/restarts outside of China (before disruptions, other losses) while others are chasing high grading mine plans while prices are high.

China's own domestic output expected to rebound between 150-200kt although this will be vulnerable to any repeat health and safety limitations like was seen last year. With the low treatment charges, smelters, (especially in China that tend to buy on the spot), are suffering to turn a profit and there are wide reports of smelters bringing forward maintenance with the hopes of re-starting production when fees get higher. The closing of the SHFE-LME arb, weaker physical premia and weakening outright prices, also curbs revenue to be generated outside of the treatment charges.

This pinch on zinc smelting profits could escalate tightness in years to come as a lack of investment in new smelting capacity is expected to become the next bottleneck. Many are calling

for above 90% utilisation rates (unseen since the 90's) in order try to hit only modest deficits in years to come. Any permanent smelter closures amid the concentrate drought would be very bullish for our further dated zinc projections.

Type	Mines	Company	Capacity	2016	2017	2018	2019	2020
Restart	Lady Loretta (Mt Isa)	Glencore	160	-120	0	60	100	0
Curtailed	George Fisher (Mt Isa)	Glencore		-85	-64	0	?	?
Curtailed	Iscaryuz	Glencore		-80	-75	0	?	?
Curtailed	McArthur River Expansion	Glencore		-135	-101	0	?	?
Curtailed	Kazzinc	Glencore		-40	-30	0	?	?
New	Century Tailings	New Century	270	0	0	30	120	120
New	Gamsberg	Vednata	250	0	0	50	150	50
New	Dugald River	MMG	170	0	10	90	70	0
New	Castellanos	Trafigura	100	0	10	40	25	0
Expansion	Bisha	Nevsun	100	41	52	10	-17	-10
New	Terrafame	Terrafame	70	21	27	10	0	0
Restart	Middle Tennessee	Nyrstar	60	0	25	25	25	0
Expansion	Buenavista Zinc	Grupo Mexico	60	0	0	0	0	20
Restart	Empire/Balmat	Titan	50	0	0	10	26	18
Restart	Niaca/ Ray de Plata	Penoles	50	0	0	0	20	20
Restart	Woodlawn	Heron	40	0	0	20	10	10
New	Macorna Tailings	Shaixin	30	0	0	5	20	0
Restart	Myra Falls	Nyrstar	25	0	5	15	5	0
New	Silvertip	Coeur Mining	20	0	5	10	5	0
New	Olympias	Eldorado Gold	20	0	0	10	5	5
New	Thalanga	Red River	0	0	2	18	0	-5
Expansion	Neves Corvo	Lundin	75	8	6	-5	20	70
Restart	Campo Morado	Telson	20	0	0	12	8	0
Restart	Shalkiya (stage 1)	Shakilya Zinc	50	0	0	0	20	30
<b>Operational Changes (YoY)</b>								
High Grading	Antamina	Glen/Teck/BH	400	-37	177	15	30	0
Operational/H	Penasquito	Goldcorp	200	-57	44	7	50	0
Extension	Skorpion	Vedanta	150	2	3	6	9	30
Transition	Rampura-Aguchi	Vedanta	700	-172	154	-100	0	0
End of life	Phasalami	FQM	40	5	7	-22	-3	-12
Largest	Red Dog	Teck	500	0	542	-7	-35	0

Source: Company Reports, ING Research

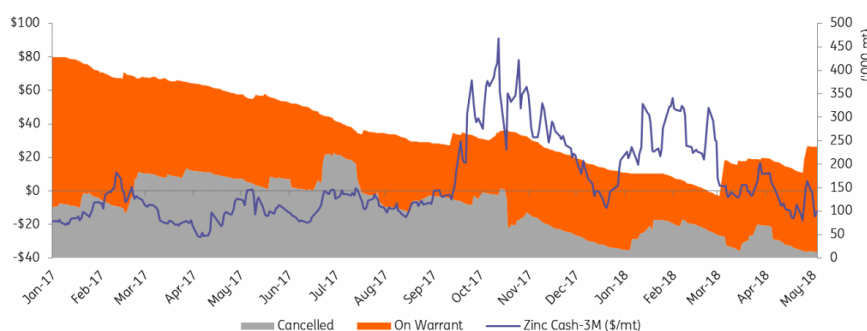
## Refined looks more available than ever, but bears beware, we are still in deficit

In our last zinc note (April 12th) we were losing faith as to whether a last spur of backwardations and tightly held inventories could see zinc prices go the last leg higher before supply-demand balances began to loosen. With LME inventory now more available than ever, it looks increasingly less likely. In late April LME stocks have increased by another 58kt. For LME spreads it's always been more about the availability of metal rather than the absolute amount and seeing the amount of stock cancelled fall below 6% provides little impetus for any tightness in the curve. The Cash-3M flirted with a brief backwardation of \$6b last week but was short-lived (\$12.25c currently), and this was seemingly only on the back of sister metal lead following a pick-up in lead stock cancellations.

China's pull on zinc stocks is also looking tame, but import losses are starting to narrow now that the local market is rebounding from reports in early of April the SRB was preparing to sell stocks. Domestic stocks at social warehouses have been on the decline and now stand at 154kt, down 42% from the highs in March and premiums appear to have bottomed. We have always argued, last years LME Zinc tightness was exaggerated as financial arb traders perpetuated the conditions for more metal than necessary to flow East from West. But, now that this overhang is being digested, it could only take a few more smelters to extend maintenance to drive increased flows once more.

The timing is going to be everything as we approach the finale for zinc's fundamental rally. Stock availability via LME cancellations and the impact on spreads can quickly change on a large traders actions. The 18% increase in financial firms (non-risk reducing) LME zinc shorts since February could be headed into a bear trap if so. A sizeable refined deficit expected around 260kt this year (source ILZSG) wouldn't make such a draw unlikely. This said, the clock is ticking, evident by the wider gap for annual treatment charges from the spot. Mine supply will loosen this year, and with it, the chapter closes on the fundamental zinc story that began with large mine closures in 2015's (Century/Lisheen etc.). Any last volatility in the footnote of this rally depends wholly on whether the spreads swing before conditions loosen.

## What tightness? Hardly any LME stock is cancelled and spreads in contango



Source: LME, ING Research