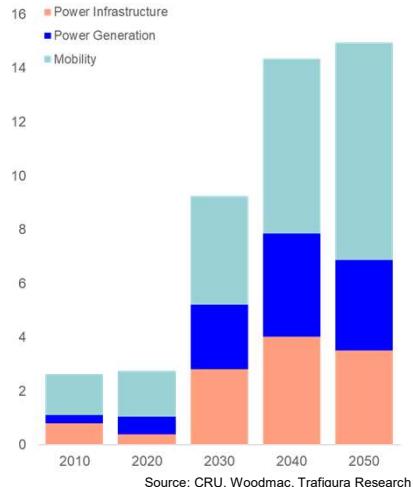


Energy transition demand expected to be a major boost to metals consumption

Transition demand – Copper

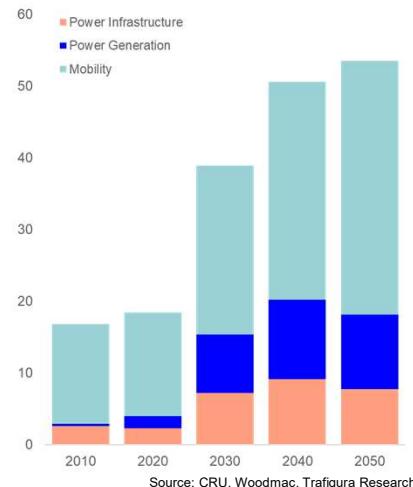
Million tonnes



Source: CRU, Woodmac, Trafigura Research

Transition demand – Aluminium

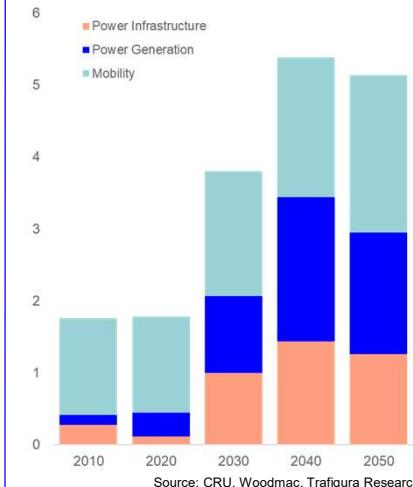
Million tonnes



Source: CRU, Woodmac, Trafigura Research

Transition demand – Zinc

Million tonnes

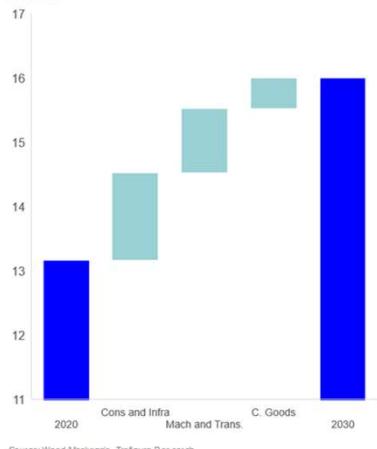


Source: CRU, Woodmac, Trafigura Research

Demand growth should be more evenly distributed between China and RoW

Growth drivers of zinc consumption

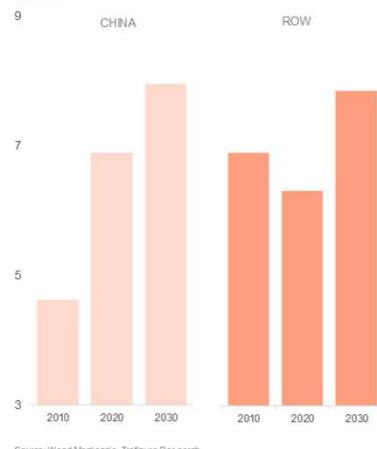
Stated in Mt



Source: Wood Mackenzie, Trafigura Research

Zinc demand growth forecast

Stated in Mt



Source: Wood Mackenzie, Trafigura Research

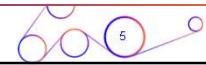
Everything needed for the energy transition is housed in or supported by galvanised steel



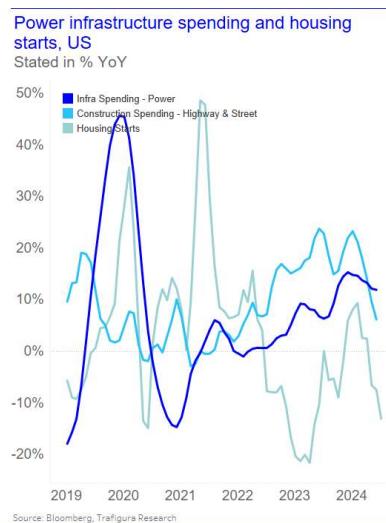
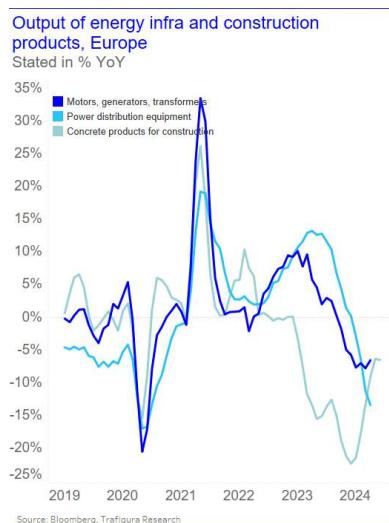
There are offsets to falling construction demand



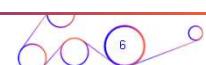
Trafigura



These offsets now clear in US and China, Europe is struggling

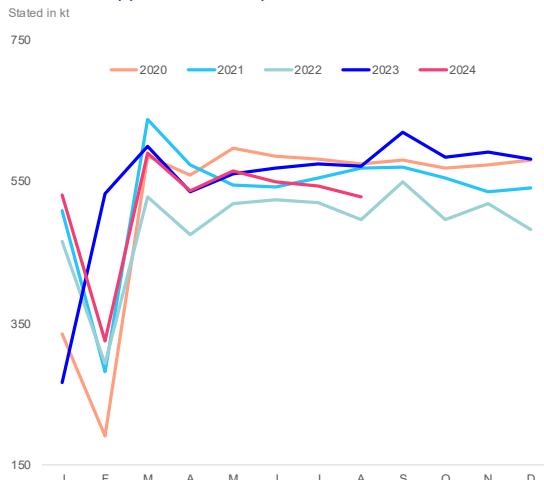


Trafigura



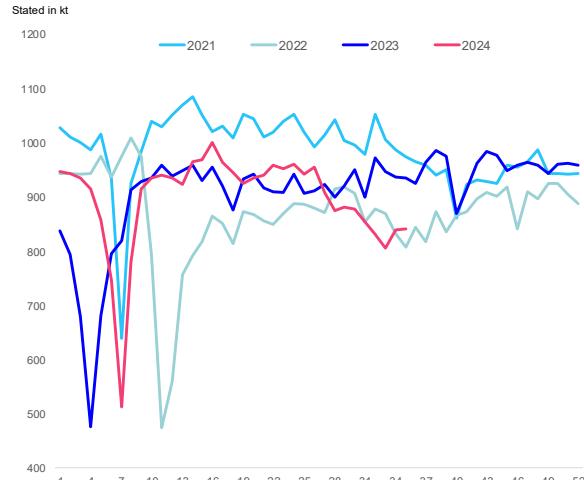
Even so, China zinc demand has softened on a YoY basis

China Zinc Apparent Consumption



Source: Trafigura Research

China galv sheet apparent consumption



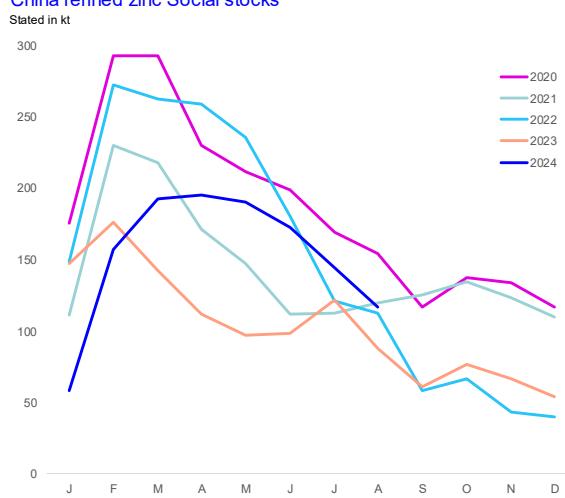
Source: Mysteel - Survey sample 130 galv sheet plants with 62.7MT capacity. (China total capacity: 91.4MT)

Trafigura



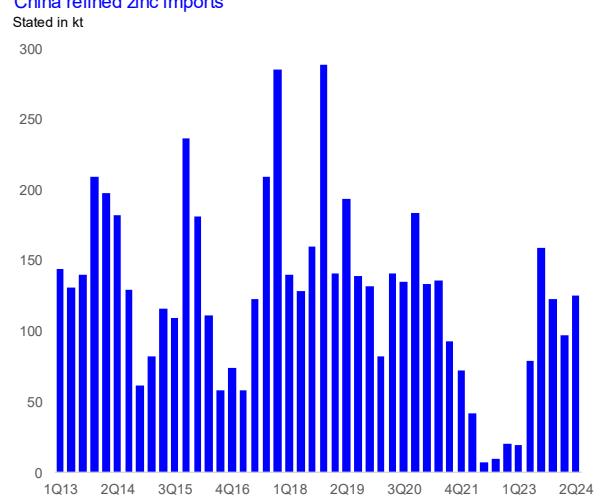
But stocks have started to drop while metal imports are still being attracted

China refined zinc Social stocks



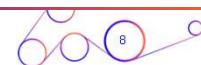
Source: Mysteel, SMM, Trafigura Research

China refined zinc imports

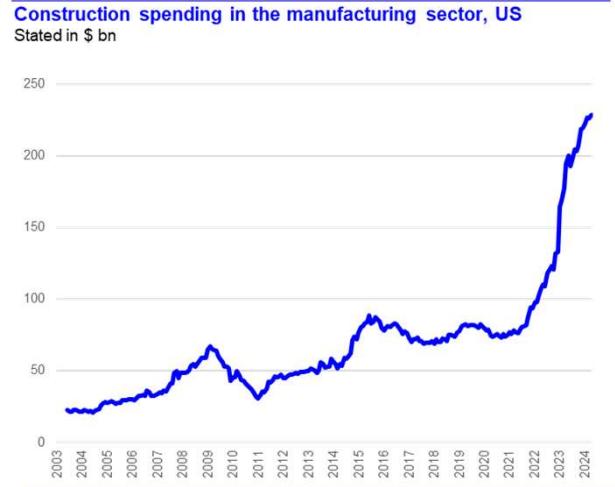
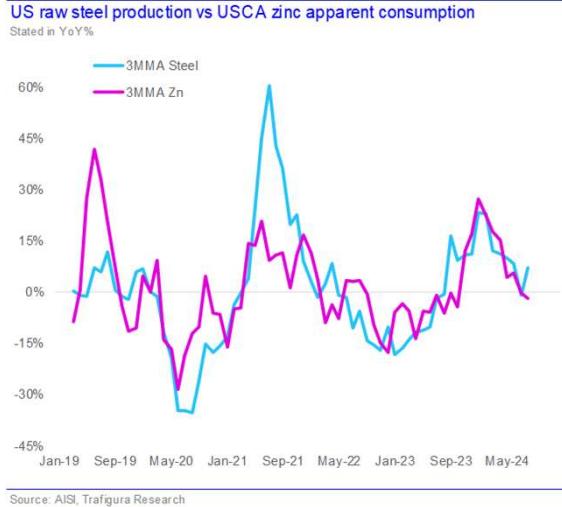


Source: TDM, Trafigura Research

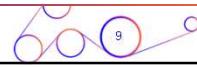
Trafigura



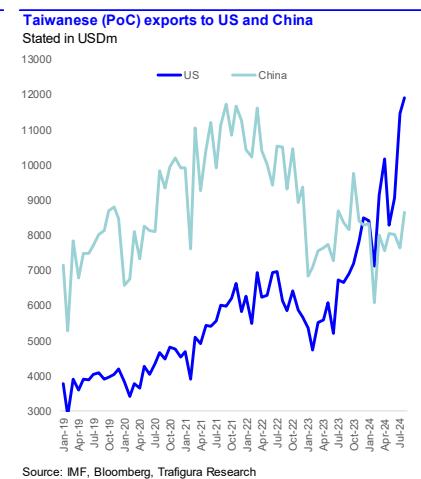
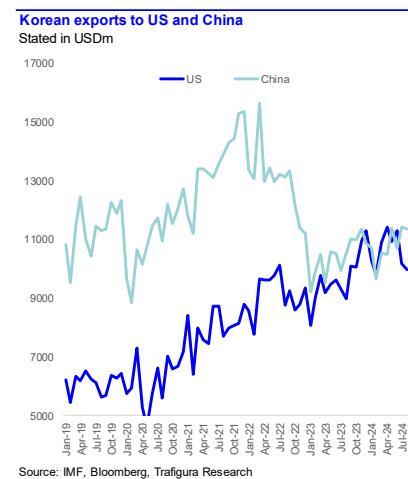
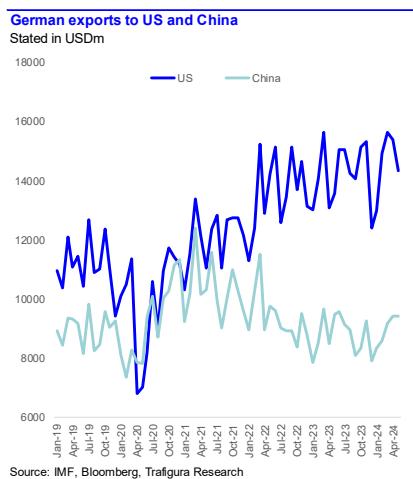
US demand has been quite strong over the last year due to large scale investment



Trafigura



US is providing a huge buffer to weaker China import demand



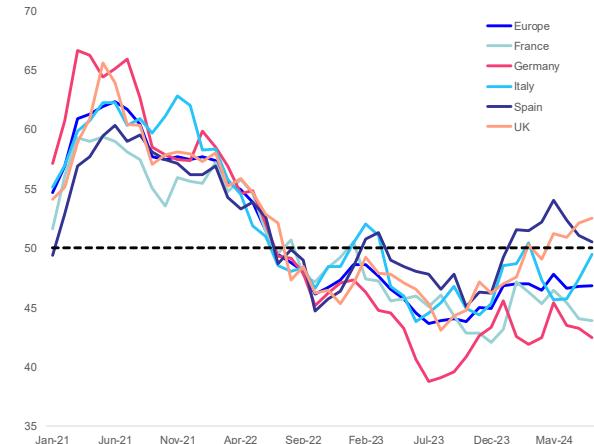
Trafigura



Europe demand has been very poor but maybe an end in sight?

Manufacturing PMI, Europe

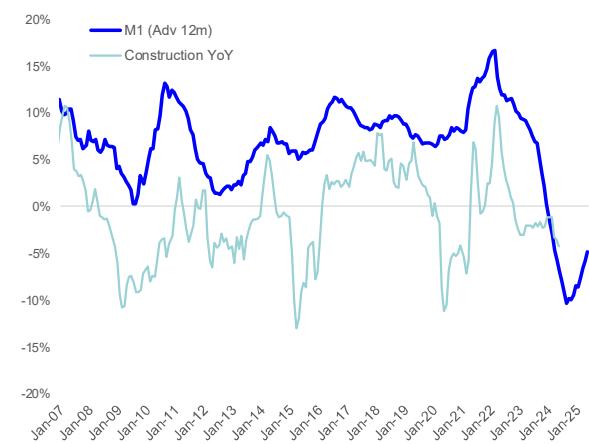
Stated as index > 50 expansion



Source: S&P Global, Trafigura Research

Money supply and construction activity, Europe

Stated in % YoY



Source: Bloomberg, Trafigura Research

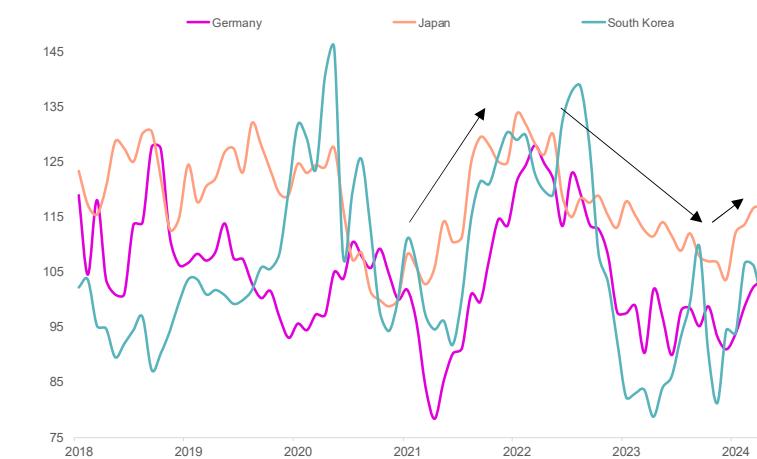
Trafigura



Destocking in RoW zinc value chain has weighed on demand the last 2 years

Coated sheet stocks

Stated as an index Dec.20 = 100



Source: CRU, Trafigura Research

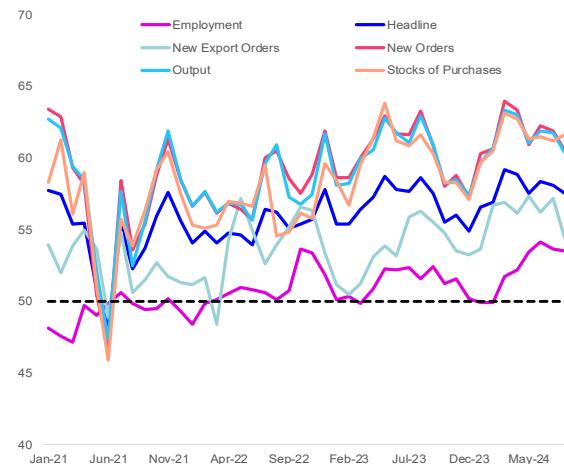
Trafigura



India clearly a bright spot

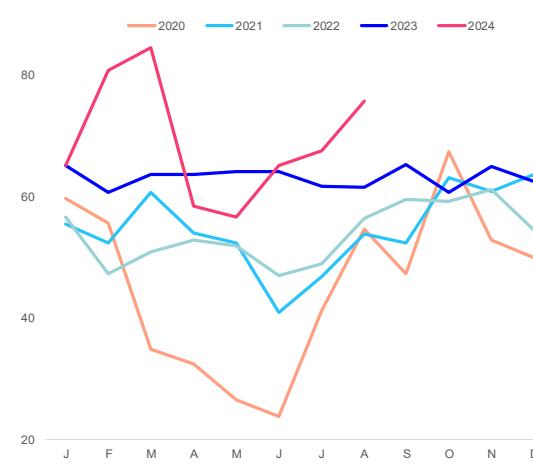
Manufacturing PMI, India

Stated as index > 50 expansion



India Zinc Apparent Consumption

Stated in kt



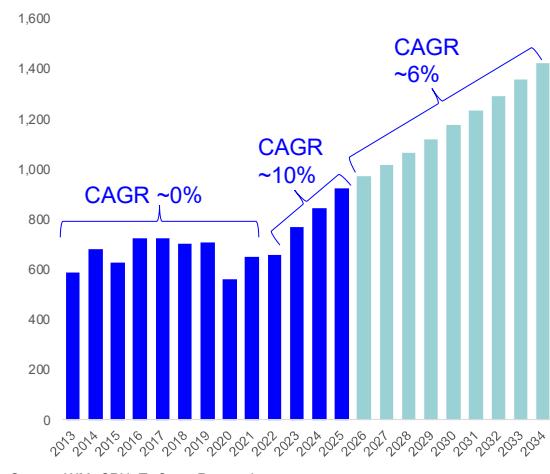
Trafigura



India now offering huge long term potential

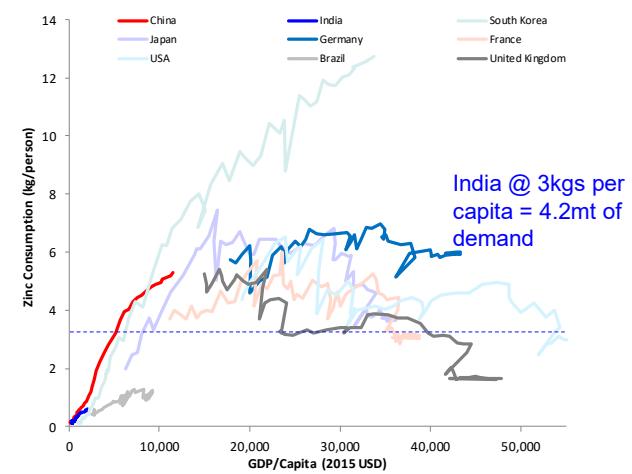
Zinc demand, India

Stated in k tonnes



Zinc consumption and GDP per capita

Stated in kgs/person and \$/person



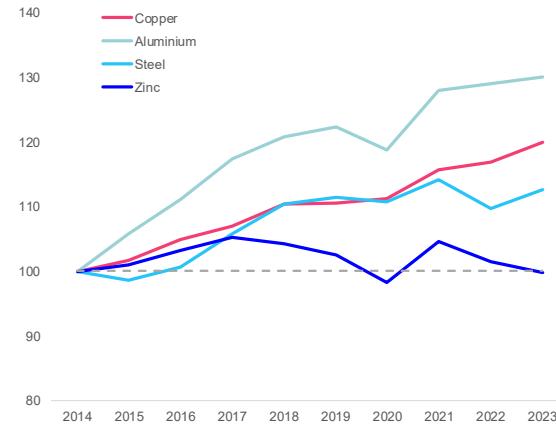
Trafigura



But there is a big risk to bullish views of forward demand, basis recent history

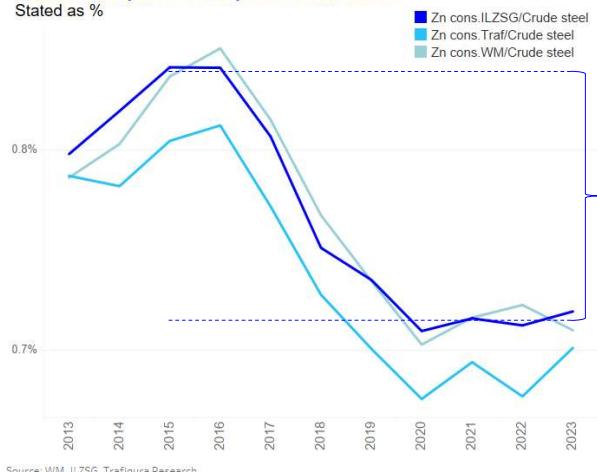
Industrial metals demand, Global

Stated as an index (2014 = 100)



Zinc consumption / Steel production, Global

Stated as %

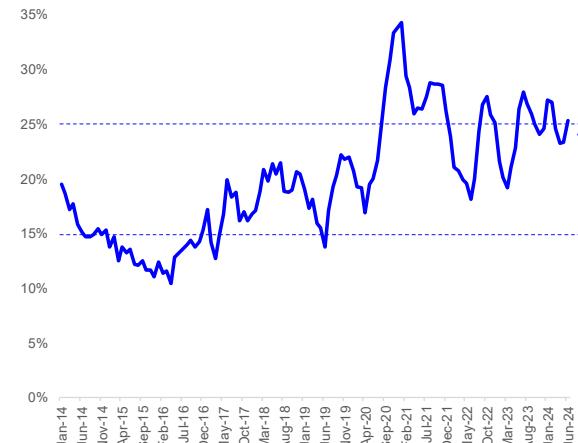


Trafigura

Substitution and thrifting appear to be real risks

Ratio of ZnAl coated sheet exports to regular galv sheet exports, China

Stated as %



Zinc and aluminium prices and difference

Stated in \$/tonne



Trafigura

Zinc has been an underperformer the last couple of years, but needs longer term context

LME metals - 2 year price performance

Stated as an index (Sep 2022=100)

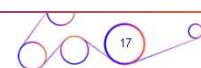


LME metals - 10 year price performance

Stated as an index (Sep 2014=100)



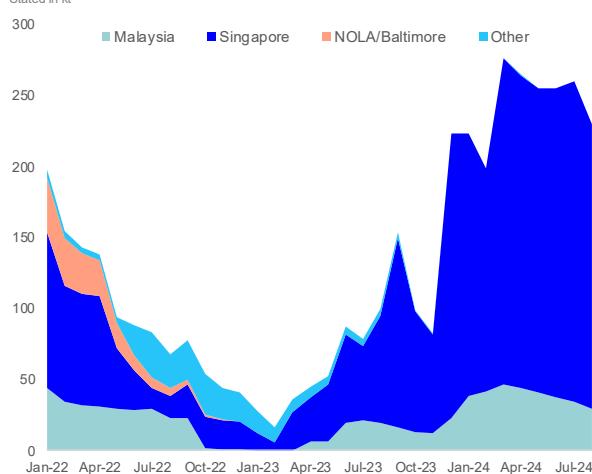
Trafigura



Despite recent LME stock increases, visible volumes remain close to historical lows

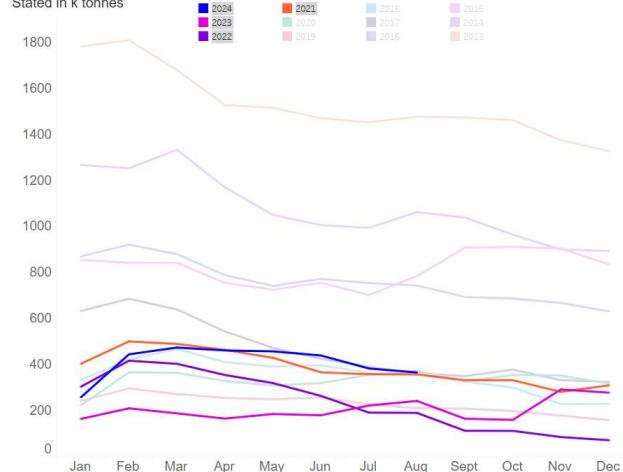
LME close stocks

Stated in kt



Global visible zinc stocks (China Social+LME close+Comex)

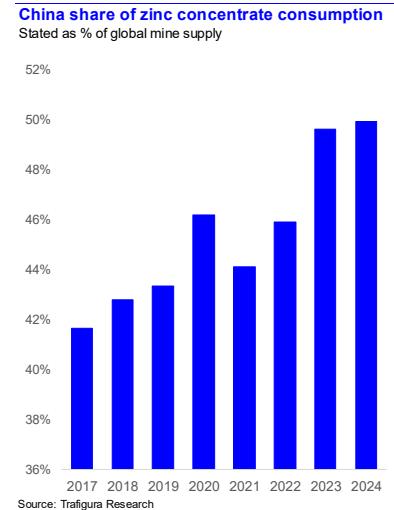
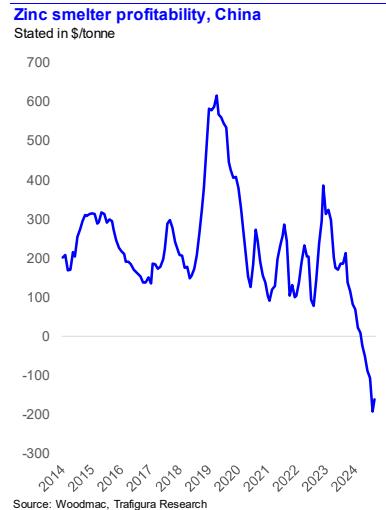
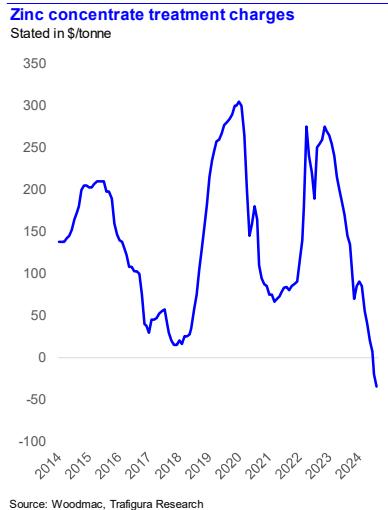
Stated in k tonnes



Trafigura



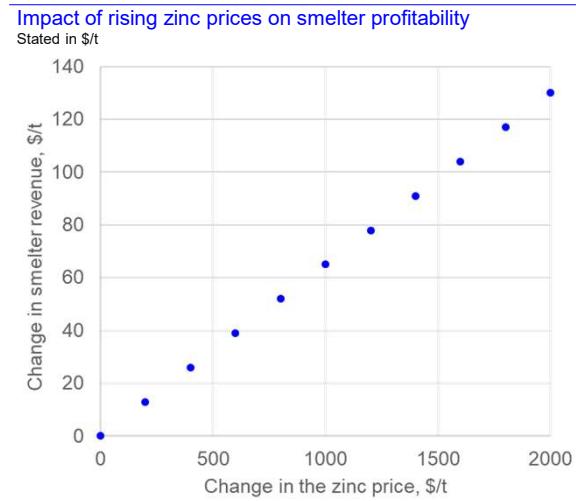
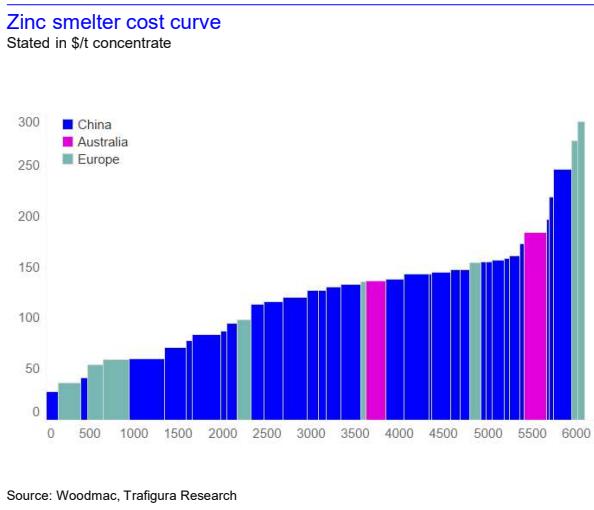
Tightness in zinc concentrates is unprecedented



Trafigura

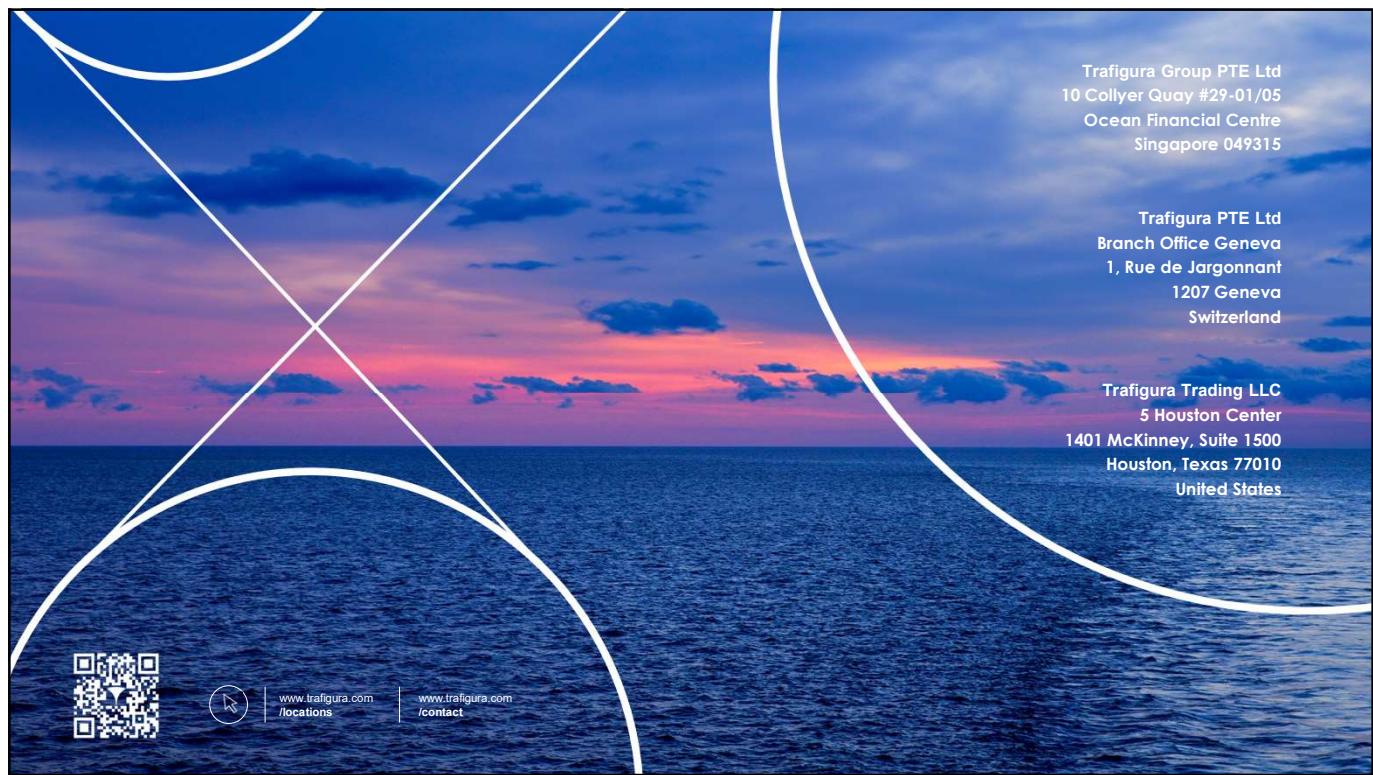


Current TCs are absurd and point to a risk of metal shortages just as demand could lift



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