Metals Update—diving into Aluminum

CONTACTS

Nicky Shiels
Commodity Strategist (Metals)
212-225-6724
Commodities Derivatives
nicky.shiels@scotiabank.com

The aluminum market put in some historical market moves in the first 3 quarters of 2018, defined by and fueled by US and global political / geopolitical headlines and surprising supply-side disruptions. By stark contrast, the last month has been considerably boring as 3m prices have gradually bled lower and continue to remain extremely contained below $2000, searching for a new cost of production floor.

Fundamentally, the market is currently in an accepted deficit (of ~1.5m oz for 2018), demand growth is steady and output struggles somewhat, as prices dribble lower, yet these bullish drivers have mostly been offset by financial flows, concerns of trade wars and a softer macro backdrop with the equity and oil market selloff in October and November respectively.

Table 1 outlines the general outlook and direction from several perspectives for aluminum

SUMMARY	General Outlook	Comment
Short-term fundamentals	bullish	Improving, but no catalyst given 2018 volatility & headline exhaustion
Medium-term fundamentals	neutral	steep deficits in 2018 and 2019 due to swing into mild surpluses (~200kt) by 2020
Macro short-term	neutral	Trade concerns, unresolved policies, seasonally & structurally strong $, unstable global equities, an oil drag. Upside risk if data sours and the "Fed pause" narrative gains momentum, softening the $
Macro medium-term	neutral-bearish	Late cycle fears & added volatility, lack of $ liquidity & tighter financial conditions as Fed continues hiking, ECB starts tightening with large Fed & corporate issuances in 2019
Technicals	neutral	prices remain in a contained tight downtrend channel but compression isn't natural nor comforting, given the structurally high vol environment markets are in
Market positioning	neutral-bearish	market positioning stands at 5year average of ~20m mt; investors are mildly over owned; some consumers pre-emptively hedging ahead of any potential escalation in tariffs

Over a very short time, the narrative has changed rather dramatically. 2 months ago, the market flagged the threat of severe deepening deficits in 2018/9 due to supply-side disruptions (Rusal sanctions, Alcoa strike, the Alunorte shutdown & alumina shortages, and expected environmental crackdown on Chinese capacity over the winter) and focused on upside potential. NOW, theres a refocus on finding a sustainable market bottom after flagging the effect of lower oil on cost of production floors (lower) but still lofty alumina prices (higher), demand concerns as auto growth stalls, inventory buildups (off exchange), the softening (and expected removal) of Rusal sanctions and an abundance of scrap metal driving steep discounts.

Overall, market complacency— outlined both by the compressed intraday ranges and relatively subdued vol— is rampant, despite the ongoing risks of trade wars, supply-side risks easily reasserting themselves and / or feeding through into the data, and the generally new higher vol macro regime markets are navigating. Is the market too forward looking without realizing that 2018s troublesome headlines and volatility has yet to fully play out?

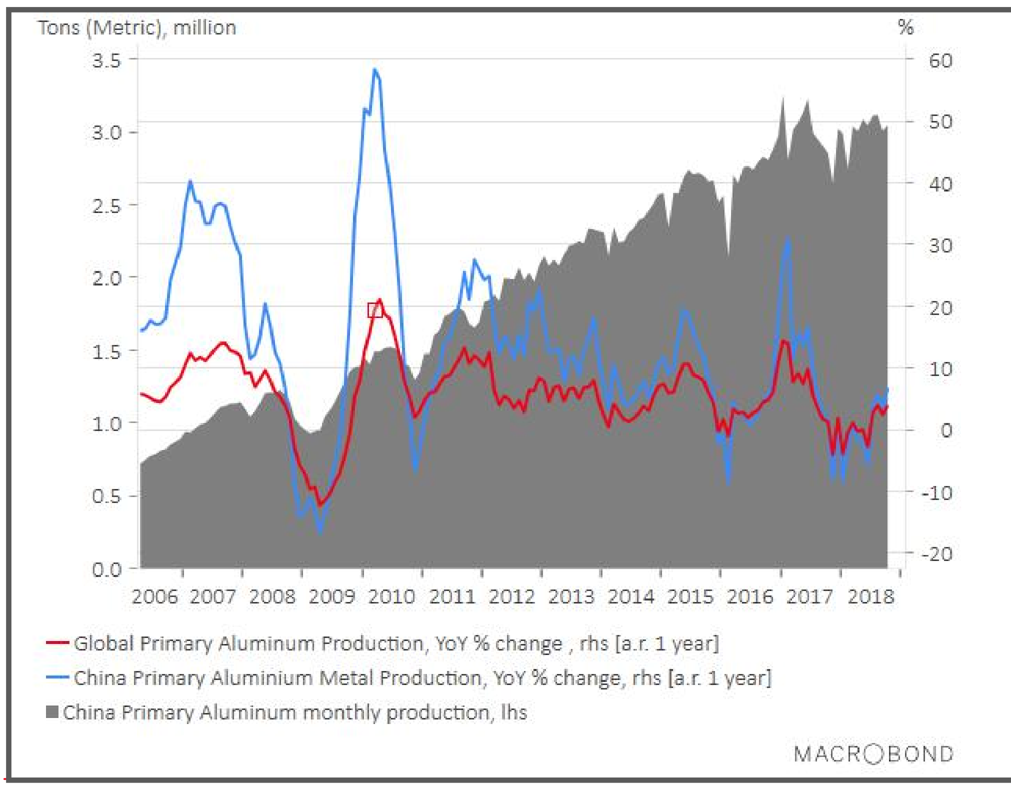
The subsequent pages outline:

Short-term fundamentals:

Supply: the calls of cash negative producers/smelters at risk of cutting production, is not really showing up in the data (yet?); Chinese supply growth is showing signs of topping out (albeit at a high "base"); ROW producers are still putting in small YoY gains despite 2018 input risks and shortages.

- Chinese aluminum output for 2018 is expected to remain flat YoY (at below 38m mt), and well below the double digit growth rates seen in the past few years. Cost pressures, replacement capacity rules (less so the impact from environmental rules) and low SHFE prices have capped the smelter rebuild efforts. However, a slowdown, at 38m mt is still decent; this week the IAI estimated that October production rose to 5.4m mt in October and both IAI and NBS figures show mildly strong (mid single digits) YoY growth despite flat lining on a MoM basis. The market now shifts its expectation out (again) to November production figures in expectation of a larger cutbacks due either to costs pressures or anti-pollution curbs.
- Woodmac estimates that 43% of Chinas smelters are cash negative (at RMB 14,100; current prices ~2% below this). Given that plenty of small-scale Chinese ali smelters are much more nimble and considered the swing player, this cost pressure argument explains why Chinese production growth has tailed off.
- While the bullish call that over 40% of world-ex-China smelters are losing money at current LME prices, and the marginal cost support was $2000, its clear (even before the oil repricing lower) that this cost support is moving lower. The easing of cost pressure from alumina retracing some of its Alunorte-induced spike and the assumption that all smelters produce the standard P1020 ingot (when in fact that they can produce a range of value add high premium products) was perhaps incorrect and why cost of production floors were tested and shifted lower. Harbor still expects the worlds production to grow 4.5% YoY next year (driven by production expansion is Iran, India, China & Bahrain(but with Alumina still above $400 (and 22% of aluminum prices); some key production cuts are likely, else equal, unless Ali reprices above $200 or Alumina below $300 (the comfortable relationship between the key input/ Alumina and output prices/3m aluminum is 16-17%).
- The IAI estimated that global primary Ali output rose by 4.0% YoY in October, which arguably does not show any effect on production the from the alumina squeeze (seen in April & September), high oil prices in Q1-Q3 and lower aluminum prices. Perhaps the ROW output data for November & December (post Alunorte) will provide a clearer indication of the 'effect' on primary production due to the supply shortage of alumina, and cost pressures.

Global and Chinese aluminum production and yearly changes: a slowing growth, but no declines.

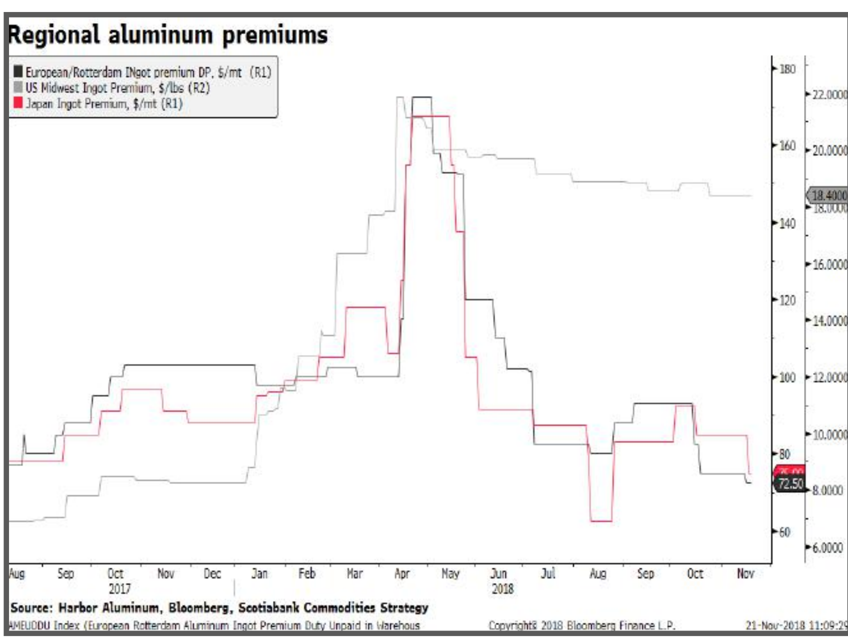


Demand: overall demand remains steady but there are dislocations regionally; Chinese autos sales are a key downside risk but theres potentially a case to be made that demand (and order books) is brought forward in the short-term, ahead of G-20, threatened EU auto tariffs or before the 25% US import tariffs scale up to 25% on $200bn in Jan 2019 (on Chinese goods)

- US demand remains relatively rosy and being driven by the automotive and construction industries, but the market remains wary of the effect of trade war on overall business confidence and potential tariffs on EU (and perhaps Japanese) automakers; the reported plan has subsequently been put on hold.
- China: while some policy easing has come through in the macro data (IP and FAI bottoming out and improving in October), Official & Caixin PMIs are slumping (albeit not below the 50 "contraction" threshold) and auto sales post-ed their 5th consecutive month of declines in October bringing the worlds largest market closest to its first annual drop in at least 2 decades. This has prompted the State Council to propose a purchase tax cut (lowered to 5%), which, if implemented, would be a positive booster for both sentiment and demand (in most metals)
- Europe: the pace of Europes expansion has slowed but off take from the construction and auto industries continues to underpin aluminum demand this year. Some are surprised by this demand despite the fears of escalating trade concerns (its well highlighted/expected that EU and Japanese automakers are in the line of fire for a potential next round of Trump tariffs). It could be the case that theres tariff-induced dislocations and demand (and order books) are quietly brought forward in Q4'18, before the 25% US import tariff kicks in in Jan 2019 (vs China), G-20, or threatened EU auto tariffs. The anecdotal evidence from Fareast consumers confirms this belief—after Rusal sanc-tions were announced in April, plenty of consumers rushed to secure units in event theyd lose them when sanctions took effect, and now are left managing inventories. Regardless, watch the spaces — currently, theres talk Trump is planning to meet German Car CEOS after Thanksgiving to push for a broader trade deal as both sides threaten tariffs (US on EU auto imports and EU on imposing a digital services tax that will impact large US tech firms)

Premiums:

- Regional European premiums were under pressure starting in the summer, as increased Russian exports of Ali (via Switzerland) to Europe pressured premia. This was metal in process/inventory which was processed when the sanctions of new production was implemented on Rusal in April 18. With conviction pretty high that Rusal sanctions will be fully removed, theres talk of Russian origin p1020 units arriving to the US by yearend, indicating the current challenge the European markets in absorbing these inventories (and Chinese semi finished products) given the seasonal destocking periods. The recent pressure is seasonally not unusual however. Currently, European premia is crawling along the 10year average lows seen for Q4 (below $100/mt). The market isn't wrong in expecting a up-tick in 2019, given that deals were agreed at $150-160 (well above spot levels), the fact that within the first 2 months of the year the seasonal average for European Ingot DP over the last 10years has ranged from $180-210 and also increased by almost 10% from the December base/lows.

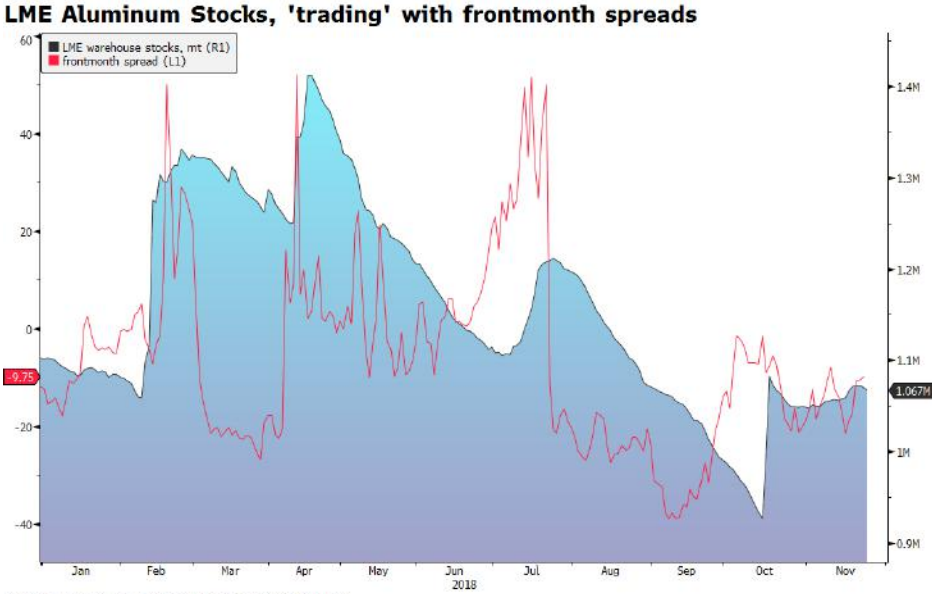


- The US Midwest premium has also been pressured, but not as much as its Europe-an counterparts, largely due to the expec-tation that Section 232 tariffs will be quite diluted by the new trade deals, theres scant activity due to seasonally usual in-ventory destocking by consumers, and a largely oversupplied scrap market. Harbor reported that certain RSI metal is selling at record wide discounts to the MidWest Transaction price, which in turn is canni-balizing primary US ali demand.

On and off exchange stocks: on-exchange inflows are pretty responsive to tightening spreads in 2018; off-exchange/ unknown stocks large if recent premia trends (lower from elevated leveks) are any indication as they've been more than able to plug expected swelling 2018 deficits.

- LME warehouse stocks are currently now back above 1m mt reversing almost half of the Q3 drawdowns with the majority of material delivered onto Asia warehouses.
- Unlike some other metals, Ali has seen large bouts of inflows (~170K mt in February, ~100K mt in April, & 110mt in July) this year which doesn't indicate a sharp reversal in physical demand trends but rather the natural flow of metal to cool and in response to tightening spreads (in February, cash/3s moved from $20c to $5b, in April spreads spiked from ~$20c to $50b due to Rusal sanctions and in July they tightened from $16b to $50b).
- Currently, front month spreads are sitting rather comfortably in contango territory ($10contango), and averaging $15c since the large mid October inflows, arguing that further large inflows are unlikely and physical demand is OK but not overreaching.
- The more interesting debate is the size of off-exchange / inventory buildups (accumulated during the ultra-low interest rate periods) which are expected to plug the large deficits due to this years supply-side disruptions. Judging by price action they did exactly that. Estimated actual levels are extremely tough to gauge with any conviction, but Harbor has off exchange stockpiles for ROW-ex-China at 15m mt (the US alone holding 2m mt), with 1 large participant purportedly holding >700kmtpy of P1020 inventories in Europe and 450k mt of primary ali in the US. A simple measurement applying the balances since 2010, shows theres ~8m mt of hidden stocks. Current suppressed physical / regional premia suggest these are still elevated and the key to drawing down the inventories and incentivizing large releases is the tightening of spreads.

LME Aluminum Stocks, 'trading' with frontmonth spreads

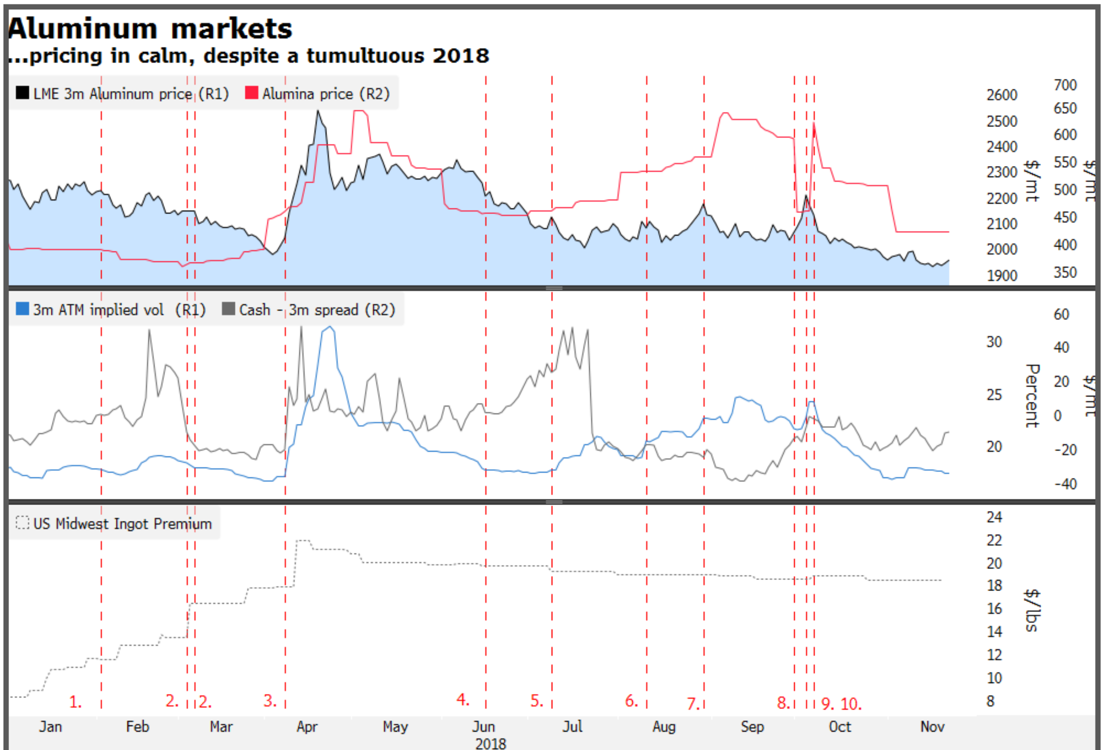


Source: Bloomberg, Scotiabank Commodities Strategy
LSAH Index (LME ALUMINUM TOTAL) Ali stocks vs spreads Daily 29DEC2017-23NOV2018 Copyright© 2018 Bloomberg Finance L.P. 23-Nov-2018 08:01:06

Macro: quick recap of aluminum vs oil relationship

- Plenty have acknowledged that the macro risk-off overhang has spoiled any optimism across base. Shanghai Comp is in a bear market, oil has put in dramatic unwind from posting bull market returns in September to now down 14% YTD, US/DM equities are reeling from a tech repricing, and the $ remains resiliently strong as the Fed for now remains on its gradual hiking path. In particular, given the fact that aluminum is most exposed in theory to energy prices vs its peers (energy costs, are highest for Ali at >50% share of total costs), YET underlying prices have not recalibrated lower below $1900 on the painful oil collapse toward $50 (WTI), is somewhat constructive. A previous weekly mentioned that if base & oil rediscover their traditionally strong positive relationship (the thinking being that Oil has *belatedly* repriced into a lower range more accurately reflecting global growth fears and trade concerns) then this potentially new $50 – 60 range favors an Ali comfort zone of $1940 - $2110.

Trade & tariffs snapshot:
While the focus from a macro perspective has been on Copper and CNH internalizing "trade-on/trade-off" headlines in 2H'18, Aluminum was the first in the (firing) line for a global trade war when the Trump administration began delivering on rhetoric in Q1 with Section 232 and tariffs on aluminum and steel. While 232 impacts the US Midtwest premium (more so than underlying 3m prices), the aluminum market (and particularly the physical regional premia market) continued to be disrupted since then by blanket US tariffs on Chinese goods announced in June , August and September and contending with the surprise announcement of Rusal sanctions (April), Alunorte refinery shutdown (& Alcoa strike (October), rewriting of NAFTA into USMCA (October). The political & geopolitical headline and regulatory turmoil the market has endured this year, evidenced by some historical shifts across pricing metrics (vol, premia, spreads & underlying 3m prices) is one for the record books. It would be no wonder then, if marginal discretionary interest abandoned ship or remained sidelined, risk taking was dramatically reduced and market activity became increasingly driven by participants with a real need. The below analyzes some flow and pricing metrics to test this, but besides contained ranges, volumes, participation and liquidity gauges don't highlight a mass exodus of speculative interest,.



Source: Bloomberg, Harbor Aluminum, LME, Scotiabank Commodities Strategy

List of geopolitical, trade and fundamental headlines affecting aluminum pricing mechanisms in 2018

1. February: US implements "global safe guard tariffs"

2. March: Section 232 imposed & blanket 10% tariffs on Ali, Alunorte ordered to cut 50% of capacity by Brazilian authorities

3. April: US imposes sanctions on Rusal (deadline extended again by OFAC to Jan 7 2019 from previous deadlines in October, November and December).

4. June: US announces 25% tariffs on $50 of Chinese goods; extends 10% aluminum tariffs to EU, Canada & Mexico

5. July: trade tensions kick off… Both impose 25% tariffs on $35bn

6. & 7 August: US finalizes 25% tariffs on $16bn; China matches 25% on $16bn

8. September: US imposes 10% (less than 25% "expected") on $200bn; China responds with 5-10% on $60bn

9. October: USCMA (NAFTA 2.0) informally signed (signature, ratification and implementation still pending). Industry groups push back to resolve the Section 232 tariffs on aluminum imports for USCMA members

10. October: Brazils Alunorte fully curtails alumina refinery (restarted at 50% capacity on Oct 8th and currently still operating at only 50% with no clarity on when full operations will resume).

Technicals: prices of 3m and vol indicate a very complacent and overly content market

- While most of the supply-side risks have been priced out, there is still 1) unresolved production issues (at Alunorte), 2) ongoing trade negotiations & threats (G-20 on Nov 30th, the threat of auto tariffs on EU & Japan, an unsigned USCMA, Section 232), 3) uncertainty over alumina prices which is sensitive to disruptions and questions over the sustainability of Guinea bauxite to China, 4) the risk of slowing Chinese output because of air pollution curbs or cost pressures (from the heavy-aluminum provinces of Shandong & Xinjiang actually curtailing capacity, or because of power shortages, maintenance or a crash crunch forcing closures).
- The compression of underlying 3m prices (which continues to trade within a tight downtrend $30 channel), sideways-to-lower US Mid West premium and the softness in frontmonth vol are all pricing in a lot of calm.
    - In the 4 years before 2018 and the tariff-induced volatility, intraday 3m Ali prices put in average ranges of $30. In 2018 (up until mid October) the average intraday range was $48, whereas the recent intraday range the past month was just $27. The market certainly feels like its on autopilot and very few are overreaching.
    - 3m prices have been very contained in this downtrend channel which is quite unusual given the historical lashes its received this year, and the ability for prices to rebound/reverse very quickly from the old $2000 floor (+14% in Dec 17 / Jan 18; +38% in April '18, between 7-13% 3x in Q3'18).
    - A rolling short-term measurement of vol (ATM implied vol) has softened below 20% and is sitting near a 1year low, which has diverged from the pickup in both Copper and Zinc short-term vols which are pricing in some reprieve from the negative macro onslaught in hopes the fundamentals (tightening spreads, elevated and falling stocks) at some point come into play.
    - Only the US Midwest premium is still pricing in effect of trade tariffs; despite falling to $18/lbs recently (from a $22 peak), its only erased <30% of the tariff (Section 232) related premium that was injected in Q1 this year.
- Overall, the cost of production support is moving lower, and the market is searching for the "next $2000" just as 3m prices technically hitting an inflection point, and hanging onto a key trend line support that extends back to the recent cycle lows; the next line in the sand is $1850 series of lows. I just think the technical compression (especially when commodities are generally battling liquidity potholes) isn't comforting.

Aluminum ownership & positioning —market is mildly long, and deleveraging

- Positioning across both LME & SHFE is not near the depressed levels seen in the summer 2018, which pretty much matched the $2000 floor back then. Total interest and positioning (as measured by Aggregate Open Interest across both SHFE & LME) stands at 19.6m mt, below the 5year average of 21.4m mt, rather neutral but trending lower
- Specifically, investors alone (LME COT) own 4.2m mt (166K contracts), which is 25% of aggregate LME OI, and closer to the recent high (of 30%).

The information contained in this presentation is being provided for information and discussion purposes only. An investment decision should not be made solely on the basis of the contents of this presentation. This presentation is being provided upon the express understanding that no representation or warranty, express or implied, is made, or responsibility of any kind accepted, by The Bank of Nova Scotia, Scotiabank Europe plc, or any of their respective affiliates ("**Scotiabank**"™), their directors, agents or employees with respect to the completeness or accuracy of the information, conclusions and opinions provided herein, or as to the achievement or reasonableness of any projections, targets, estimates, or forecasts and nothing in this presentation should be relied upon as a promise or representation as to the future. Past performance or simulated past performance is not a reliable indicator of future results. Forecasts are not a reliable indicator of future performance.. This presentation has not been prepared (i) by a member of the research department of Scotiabank, or (ii) in accordance with the legal requirements designed to promote the independence of investment research. It is considered a marketing communication for regulatory purposes and is solely for the use of sophisticated institutional investors. This presentation does not constitute investment advice or any personal recommendation to invest in a financial instrument or "investment research" as defined by the UK Prudential Regulation Authority and the UK Financial Conduct Authority, and its content is not subject to any prohibition on dealing ahead of the dissemination of investment research.

The information contained in this presentation reflects prevailing conditions and our judgment as of the date of the presentation, all of which are subject to change or amendment without notice, and the delivery of any such amended information at any time does not imply that the information (whether amended or not) contained in this presentation is correct as of any time subsequent to its date. Scotiabank undertakes no obligation to update or correct any information contained herein or otherwise to advise as to any future change to it. Scotiabank does not provide any applicable tax, accounting or legal advice and in all cases independent professional advice should be sought in those areas.

This presentation incorporates information which is either non-public, confidential or proprietary in nature, and is being furnished on the express basis that this information will not be used in a manner inconsistent with its confidential nature or be disclosed to anyone other than as may be required by law or to those who have been informed of the confidential and proprietary nature of this presentation. This presentation and its contents are strictly confidential to the person to whom it is delivered and may not be copied or distributed in whole or in part or disclosed by such persons to any other person without the prior written consent of Scotiabank. This presentation and the information contained herein remain the property of Scotiabank.

This presentation is not and shall not be construed as an offer, invitation, recommendation or solicitation to sell, issue, purchase or subscribe any securities or bank debt in any jurisdiction or to enter into any transaction. Nothing in this document contains a commitment by Scotiabank to sell, issue, purchase or subscribe for financial instruments, or securities, to provide debt or to invest in any way in any transaction described herein, or otherwise provide monies to any party. Any participation by Scotiabank in any transaction would only be provided in writing after satisfactory legal, financial, tax, accounting and commercial due diligence, as well as being subject to internal approval processes. Any transaction implementing any proposal discussed in this document shall be exclusively upon the terms and subject to the conditions set out in the definitive agreement related thereto.

This presentation is not directed to or intended for use by any person resident or located in any country where the distribution of such information is contrary to the laws of such country. Scotiabank, its directors, officers, employees or clients may currently or from time to time own or hold interests in long or short positions in any securities referred to herein, and may at any time make purchases or sales of these securities as principal or agent. Scotiabank may also have provided or may provide investment banking, capital markets or other services to the companies referred to in this presentation.