MACRO SUMMARY: Unprecedented, unexpected and unprepared

(see summary on page 2)

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Upcoming dates:

⇒ **Metals *Strategy* Call focusing on the outlook for Gold, Copper and other metals, on Tuesday April 14th at 10am E.T (please reach out to your sales rep for details)**

⇒ **Updated Official Scotia GBM base metals forecasts released on April 9th, here**

⇒ **Updated Official Scotia GBM precious metals forecasts will be released around April 15th**

Sections:

Copper: a second frustrating year for Copper bulls; last year relatively stronger fundamental balances were derailed by trade wars, this year by COVID-19's demand destruction (and subsequent fear of further shutdowns) outweighing any announced supply cuts. With demand for Copper in 2020 due to fall 5.7%, swinging the Copper balance into a surplus of ~540k mt (that rivals ones seen in the previous cycle ~7 years ago), the recent incremental supply cuts ensure a 'runaway surplus' is thwarted, not reversed. If a U-shaped recovery still holds, then $4500-$5100 remains its new comfort range IF inventories can halt any major inflows, energy finds a bottom, equity markets & risk stabilizes and the US$ bid erases. Overall, (tentative) floors are in. However, Copper below $5000 is underpriced IF investors have an optimistic economic outlook (V-shaped recovery).

Ali: the largescale demand shock particularly to the transportation industry, hit prices and outlook with the old slow grind lower accelerating. Global national lockdowns and escalating auto closures are due to reduce demand drastically, almost 10%, taking the Ali balance into a larger surplus closer to 6m mt in 1H2020. However with prices through cash costs, ex-China smelter closures and a slower ramp up of Chinese smelter expansions will lower that surplus in 2H'2020 and particularly in 2021; outright prices are still falling faster than the declining cost of production costs (due to the oil/energy & alumina price collapses).

Nickel: the multi-year destocking cycle seems to have now convincingly reversed with the impact of COVID-19 on demand and balances, despite the Indonesian export ban.

Zinc: it heydays are behind it; with demand destruction in 2020 and a structural (concentrate) surplus expected to lift exchange stocks over the next few years as it structurally enters renewed & deeper surpluses. That's unless theres a convincing response via the closure of mines (due to inability to sell concentrate at economic terms)

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VIRUS: its been labeled the great leveler with eerie milestones met (well over 1m cases globally) but the rate of change seems to be rolling over, with risk remaining around a 2nd wave (an "M" curve which is what happened during the Spanish flu and is occurring/feared in China with imported cases). Antibody tests/data in the near-term (vaccine in longer-term) and a relaxing of extreme national lockdowns could inject some balance into the economies.

CRISIS TYPES: it started as a health crisis, morphed into a economic one (and some argue a financial one but the Fed can counter liquidity issues, while it has a harder time countering or controlling equity market risks, credit and simply people getting sick). It is also a deflationary demand crisis, a supply chain crisis, a labor market crisis and an energy price crisis

GROWTH: markets and sentiment quickly cycled through varying shaped recoveries ("V-U-or L", but also "↓" or "Nike Swoosh" recoveries). The standard base / low / high scenario analysis has given way to larger and growing tail risks (inflationary "Nike Swoosh" vs depressionary "↓"). Official Scotia forecasts hinges largely on a "V-shaped" recovery later in 2H'20 (with recessionary stats for most economies in Q2); we remain a little more cautious

DATA: There has been limited recognition or no reaction to some of the high frequency data in the US (initial claims) or namesake ones that provide insight on consumer confidence & trends (NFP, auto sales). Risk markets tend to price in worse case scenarios and they've perhaps done that with added uncertainty; thus with *some* visibility returning with data, that's (bizarrely) soothing for markets. In addition, theres simply no precedent, thus data is expected to be wild, uninterpretable and untradeable (as kneejerk algo reactions remain sidelined negatively impacting liquidity/volumes). Ultimately what go us into an economic crisis (a health crisis) will lead us out.

FISCAL & MONETARY POLICY RESPONSE: The once unthinkable very quickly became a reality but 'too much' was/is being done on policy action, because developed economies (Europe and US) acted 'too late' to stem the spread of the virus; swift pre-emptive totalitarian action by governments, creates an ugly precedent for authoritarian and permanently bigger government, surveillance states where airport health screenings become routine, borders remain closed, especially if 2nd waves reemerge. Unprecedented monetary & fiscal policy has started both earlier (*before the* Q2 recession) and ramped up faster than anytime beforehand (the US' $2tn fiscal package dwarfs the 2008 package) an includes alternative new policies/method ('Coronabonds, which has been floated in Europe but not greenlighted and quasi-MMT—the Fed is using the bond market, not Treasury, as the main conduit, global ZIRP etc); unlimited QE, imminent negative interest rates is essentially here leading to unlimited deficits & a highly uncertain growth recovery with wider tail risks. Ultimately, a larger wealth gap (aggressive global monetary policy) and a need to hedge out massive inflationary response with real assets are the perhaps the obvious longer-term winners to such drastic measures. Oh and permanently slower growth.

LIQUIDUITY VS the *PERCEPTION* OF LIQUIDITY: the irony is that even with extraordinary liquidity injections, the liquidity party (2010-2019) is over as banks and other providers (while much better capitalized vs 2008) remain hesitant about lending, as the markets await the economic/market casualties of Covid-19. The tide — of unlimited liquidity, at any cost (no growth—think WeWorks) spurred on by decades of globalism & international trade— has gone out. Quality now really matters.

GLOBALISM vs PROTECTIONISM: Trade wars was just the ugly cousin to this same phenomenon (borders-up protectionism). Global interdependence and globalization rests on the idea that the consumer can have anything 'on-demand' that spurred travel, free trade & low-cost imports from China. The age of ultra-mobility & 'cheapest is best' is behind us as society, companies & government will likely fundamentally change their thinking about security, global supply chains/reliance on China and what 'critical interests' are, respectively.

SOCIO-ECONOMIC IMPACT: many comparisons have been made—will 1H'2020 be remembered as 9/11 (best case?), the 1929 Great Crash or the end of WWII in 1945 — all major defining events that sparked radical changes in the way societies & economies were organized, some for generations

Chart of the month #1: Precious and base metal performance through escalating COVID-19 periods; Gold has relatively outperformed all industrial metals, especially on risk adjusted basis.

Precious and Base Metal MoM Performance

Date	Gold	Silver	Platinum	Palladium	Nickel	Aluminum	Copper	Zinc	Tin
Feb-20	$ 1,585.7	$ 16.7	$ 866.3	$ 2,616.6	$ 12,187.0	$ 1,676.5	$ 5,617.3	$ 2,009.8	$ 16,267.0
Mar-20	$ 1,577.2	$ 14.0	$ 723.1	$ 2,363.1	$ 11,434.5	$ 1,492.5	$ 4,938.8	$ 1,894.8	$ 14,667.0
Difference	-$ 8.51	-$ 2.69	-$ 143.21	-$ 253.44	-$ 752.50	-$ 184.00	-$ 678.50	-$ 115.00	-$ 1,600.00
% Change	-0.54%	-16.15%	-16.53%	-9.69%	-6.17%	-10.98%	-12.08%	-5.72%	-9.84%

Source: Scotiabank Commodity (Metals) Strategy, Bloomberg

Chart: Precious and Base Metal Index Performance Since Jan 2020

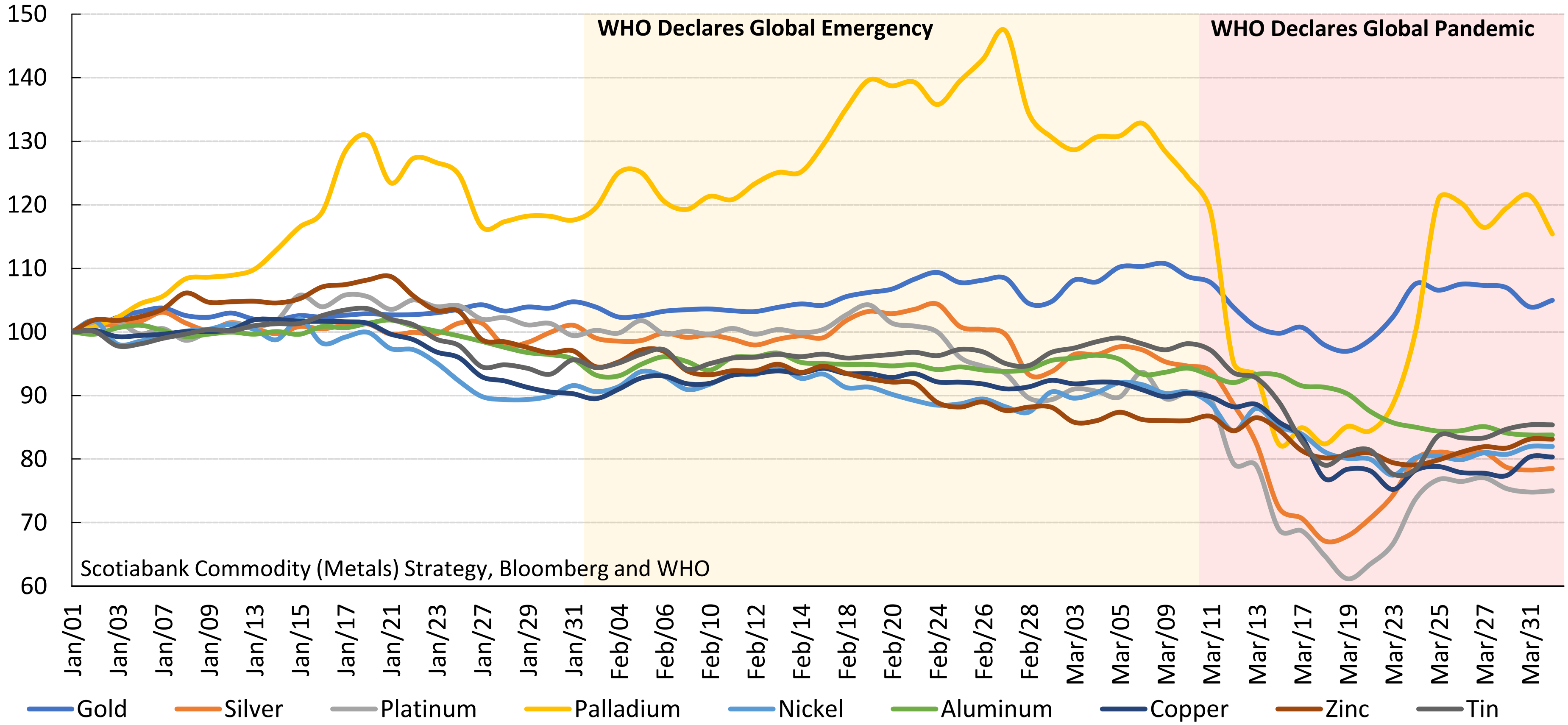


Chart of the month #2:

Given the energy crisis and the subsequent deflationary headwind it creates for ALL commodities, the table below highlights the model-implied metals prices with oil at various levels.

Oil & Metal Simulation Results: Prices

	Oil	Gold	Silver	Platinum	Copper	Aluminum	Nickel
Current**	**$ 23**	**$ 1,697**	**$ 16**	**$ 750**	**$ 5,020**	**$ 1,480**	**$ 11,672**
% 'premium' above model-implied price		**47%**	**52%**	**17%**	**12%**	**-10%**	**49%**
	$ 45	$ 1,247	$ 15	$ 909	$ 5,503	$ 1,770	$ 11,121
	$ 44	$ 1,243	$ 15	$ 897	$ 5,458	$ 1,764	$ 10,970
	$ 43	$ 1,239	$ 15	$ 885	$ 5,412	$ 1,758	$ 10,820
	$ 42	$ 1,235	$ 14	$ 872	$ 5,366	$ 1,752	$ 10,670
	$ 41	$ 1,231	$ 14	$ 860	$ 5,321	$ 1,746	$ 10,519
	$ 40	$ 1,227	$ 14	$ 848	$ 5,275	$ 1,740	$ 10,369
	$ 39	$ 1,223	$ 14	$ 836	$ 5,230	$ 1,733	$ 10,218
	$ 38	$ 1,219	$ 14	$ 824	$ 5,184	$ 1,727	$ 10,068
	$ 37	$ 1,215	$ 13	$ 812	$ 5,138	$ 1,721	$ 9,917
	$ 36	$ 1,211	$ 13	$ 799	$ 5,093	$ 1,715	$ 9,767
	$ 35	$ 1,207	$ 13	$ 787	$ 5,047	$ 1,709	$ 9,616
	$ 34	$ 1,202	$ 13	$ 775	$ 5,001	$ 1,703	$ 9,466
	$ 33	$ 1,198	$ 12	$ 763	$ 4,956	$ 1,697	$ 9,316
	$ 32	$ 1,194	$ 12	$ 751	$ 4,910	$ 1,690	$ 9,165
	$ 31	$ 1,190	$ 12	$ 739	$ 4,864	$ 1,684	$ 9,015
	$ 30	$ 1,186	$ 12	$ 726	$ 4,819	$ 1,678	$ 8,864
Simulation	**$ 29**	$ 1,182	$ 12	$ 714	$ 4,773	$ 1,672	$ 8,714
	$ 28	$ 1,178	$ 11	$ 702	$ 4,727	$ 1,666	$ 8,563
	$ 27	$ 1,174	$ 11	$ 690	$ 4,682	$ 1,660	$ 8,413
	$ 26	$ 1,170	$ 11	$ 678	$ 4,636	$ 1,654	$ 8,262
	$ 25	$ 1,166	$ 11	$ 665	$ 4,590	$ 1,647	$ 8,112
	$ 24	$ 1,162	$ 10	$ 653	$ 4,545	$ 1,641	$ 7,962
	$ 23	$ 1,158	$ 10	$ 641	$ 4,499	$ 1,635	$ 7,811
	$ 22	$ 1,153	$ 10	$ 629	$ 4,454	$ 1,629	$ 7,661
	$ 21	$ 1,149	$ 10	$ 617	$ 4,408	$ 1,623	$ 7,510
	$ 20	$ 1,145	$ 10	$ 605	$ 4,362	$ 1,617	$ 7,360
	$ 19	$ 1,141	$ 9	$ 592	$ 4,317	$ 1,611	$ 7,209
	$ 18	$ 1,137	$ 9	$ 580	$ 4,271	$ 1,604	$ 7,059
	$ 17	$ 1,133	$ 9	$ 568	$ 4,225	$ 1,598	$ 6,909
	$ 16	$ 1,129	$ 9	$ 556	$ 4,180	$ 1,592	$ 6,758
	$ 15	$ 1,125	$ 8	$ 544	$ 4,134	$ 1,586	$ 6,608
	$ 14	$ 1,121	$ 8	$ 532	$ 4,088	$ 1,580	$ 6,457
	$ 13	$ 1,117	$ 8	$ 519	$ 4,043	$ 1,574	$ 6,307
	$ 12	$ 1,113	$ 8	$ 507	$ 3,997	$ 1,568	$ 6,156
	$ 11	$ 1,109	$ 8	$ 495	$ 3,951	$ 1,561	$ 6,006
	$ 10	$ 1,104	$ 7	$ 483	$ 3,906	$ 1,555	$ 5,855

***Single variate Robust OLS model regressing oil prices on all metals over the past 10years**
** As of April 10 2020
Source: Scotiabank Commodity (Metals) Strategy, Bloomberg

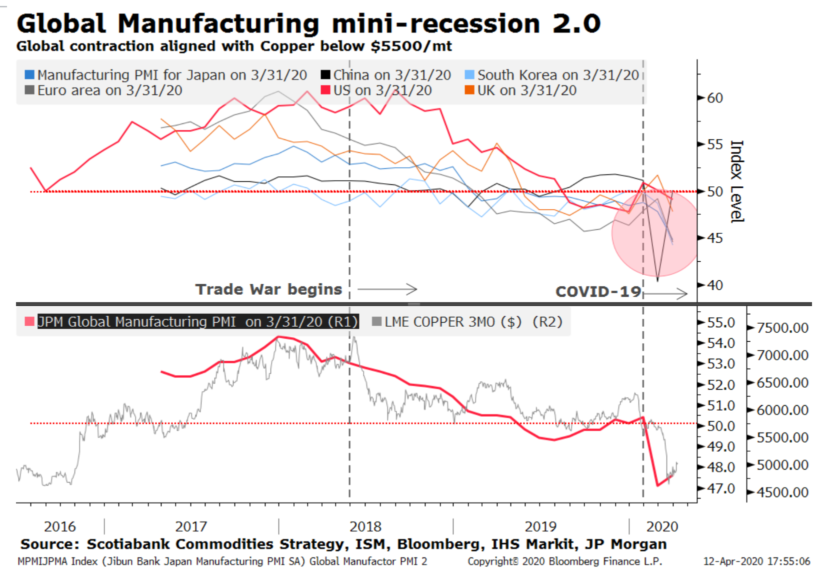
Chart of the month #3: Gauging activity —> Chinese activity heatmap and Global Manufacturing PMIs

The heat map below highlights the collective rollover in most macro-economic indicators in Q1'20 due to COVID-19, while Copper prices continue to be keenly aligned with Global Manufacturing PMIs

Heat Map - Macro Indicators for Chinas Economy

	GDP YoY	GDP Tracker YoY	Industrial output YoY	Retail Sales YoY	Fixed Asset Investment YoY	Exports YoY	Unemployment rate YoY	CPI YoY	PPI YoY	House Prices YoY	CNY per USD	Monetary conditions index	Soputh Korea Exports YoY
Jan-17	6.9	7.0	6.0	10.9	17.4	-4.0		2.1	6.3	10.8	6.9	96.9	6.3
Feb-17	6.9	6.8	6.0	10.9	17.4	8.1	5.2	2.5	8.4	10.7	6.9	96.2	11.0
Mar-17	6.9	7.0	6.0	10.9	27.3	6.1	5.4	0.8	9.9	10.6	6.9	86.6	20.2
Apr-17	7.0	7.6	7.6	10.9	23.5	16.9	5.2	0.9	10.0	10.3	6.9	85.4	13.1
May-17	7.0	7.1	6.5	10.7	23.3	9.8	5.0	1.2	9.0	9.9	6.9	87.4	23.8
Jun-17	7.0	7.1	6.5	10.7	20.9	9.4	5.0	1.5	8.0	9.7	6.8	89.9	13.1
Jul-17	7.0	7.7	7.6	11.0	21.1	7.6	5.0	1.5	7.3	9.6	6.8	87.1	13.4
Aug-17	7.0	7.0	6.4	10.4	20.9	8.7	5.1	1.4	7.0	9.3	6.7	85.5	19.4
Sep-17	7.0	6.8	6.0	10.1	19.8	4.0	5.1	1.8	7.7	8.2	6.6	86.5	17.4
Oct-17	6.9	7.2	6.6	10.3	19.8	5.9	5.1	1.6	8.5	6.5	6.7	83.3	34.9
Nov-17	6.9	7.0	6.2	10.0	19.6	8.2	5.1	1.9	8.4	5.7	6.6	84.7	6.7
Dec-17	6.9	6.9	6.1	10.2	20.1	12.8	4.9	1.7	7.1	5.5	6.6	85.1	9.7
Jan-18	6.8	6.8	6.2	9.4	19.0	12.7	5.0	1.8	5.9	5.8	6.5	85.5	8.8
Feb-18	6.8	7.3	6.2	9.4	19.0	5.6	5.0	1.5	5.2	5.4	6.3	83.5	22.3
Mar-18	6.8	6.8	6.2	9.4	16.1	15.4	5.0	2.9	4.4	5.8	6.4	86.0	3.1
Apr-18	6.9	7.0	6.0	10.1	13.0	13.0	5.1	2.1	3.7	5.5	6.3	79.7	5.5
May-18	6.9	7.2	7.0	9.4	12.4	13.7	4.9	1.8	3.7	5.3	6.3	75.1	-2.0
Jun-18	6.9	7.0	6.8	8.5	9.4	10.3	4.8	1.8	4.3	5.4	6.4	72.0	12.8
Jul-18	6.9	6.7	6.0	9.0	7.3	12.4	4.8	1.9	5.1	5.8	6.6	74.6	-0.4
Aug-18	6.9	6.7	6.0	8.8	5.7	11.3	5.1	2.1	5.2	6.6	6.8	82.3	6.1
Sep-18	6.9	6.8	6.1	9.0	4.2	10.3	5.0	2.3	4.8	8.0	6.8	86.5	8.7
Oct-18	6.7	6.6	5.8	9.2	3.3	15.2	4.9	2.5	4.2	8.9	6.9	89.0	-8.1
Nov-18	6.7	6.5	5.9	8.6	3.7	13.4	4.9	2.5	4.0	9.7	6.9	90.2	22.5
Dec-18	6.7	6.4	5.4	8.1	3.7	5.7	4.8	2.2	3.3	10.3	7.0	87.6	3.6
Jan-19	6.5	6.6	5.7	8.2	3.8	-4.4	4.9	1.9	1.6	10.6	6.9	85.2	-1.7
Feb-19	6.5	6.3	5.7	8.2	3.8	9.5	5.1	1.7	0.2	10.8	6.7	84.2	-6.2
Mar-19	6.5	6.6	5.7	8.2	4.3	1.5	5.3	1.5	-0.1	11.1	6.7	84.8	-11.3
Apr-19	6.4	7.9	8.5	8.7	4.4	16.9	5.2	2.3	0.2	11.3	6.7	90.4	-8.4
May-19	6.4	6.3	5.4	7.2	4.4	-8.3	5.0	2.5	0.4	11.4	6.7	92.6	-2.1
Jun-19	6.4	6.3	5.0	8.6	4.0	3.4	5.0	2.7	0.2	11.3	6.9	96.6	-9.8
Jul-19	6.2	7.1	6.3	9.8	4.1	2.6	5.1	2.7	-0.3	10.8	6.9	96.6	-13.8
Aug-19	6.2	6.0	4.8	7.6	3.8	0.7	5.3	2.8	-0.6	10.1	6.9	90.8	-11.1
Sep-19	6.2	5.8	4.4	7.5	4.2	-0.4	5.2	2.8	-1.3	9.1	7.2	91.1	-14.0
Oct-19	6.0	6.6	5.8	7.8	4.5	1.2	5.2	3.0	-1.7	8.6	7.1	93.2	-11.8
Nov-19	6.0	5.9	4.7	7.2	4.2	-1.3	5.1	3.8	-2.1	8.0	7.0	97.1	-14.9
Dec-19	6.0	6.7	6.2	8.0	4.0	-0.7	5.1	4.5	-2.2	7.3	7.0	100.6	-14.4
Jan-20	6.0	6.3	6.9	8.0	3.8	6.3	5.2	4.5	-1.3	6.8	7.0	101.9	-5.3
Feb-20	6.0	-5.5	6.9	8.0	3.8	6.3	5.3	5.4	-0.3	6.5	6.9	106.8	-6.3
Mar-20	6.0	-5.5	6.9	8.0	-30.3	6.3	6.2	5.2	-0.5	5.9	7.0	106.2	4.3
Apr-20	6.0	-5.5	6.9	8.0	-30.3	6.3	6.2	4.3	-1.6	5.9	7.1	106.2	-0.2

Source: Bloomberg, Scotiabank Commodities Strategy



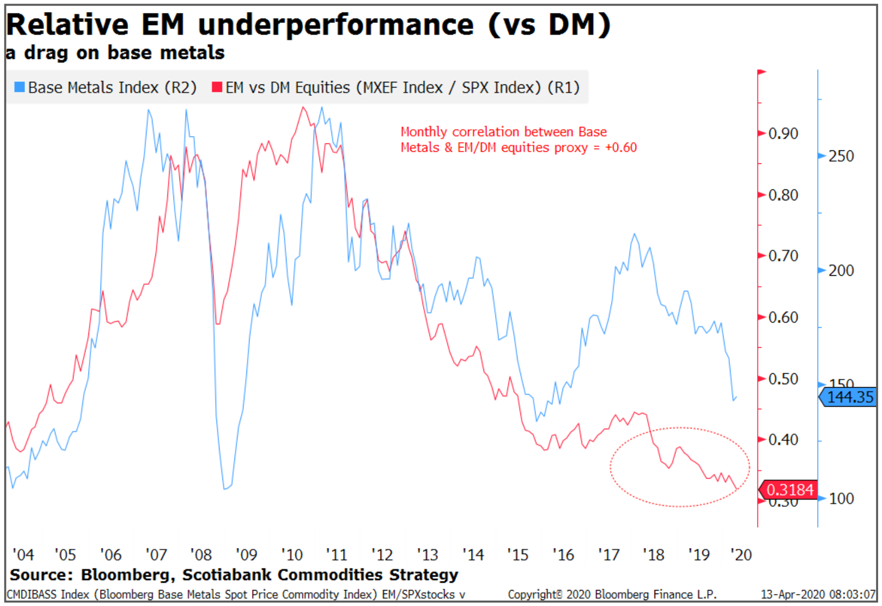
COPPER: a second frustrating year for Copper bulls.; last year relatively stronger fundamental balances were derailed by trade wars, this year by COVID-19's demand destruction (and subsequent fear of further shutdowns) outweighing any announced supply cuts. With demand for Copper in 2020 due to fall 5.7%, swinging the Copper balance into a surplus of ~540k mt (that rivals ones seen in the previous cycle ~7 years ago), the recent incremental supply cuts ensure a 'runaway surplus' is thwarted, not reversed. If a U-shaped recovery, still holds, then $4500-$5100 remains its new comfort range IF inventories can halt any major inflows, energy finds a bottom, equity markets & risk stabilizes and the US$ bid erases. Overall, (tentative) floors are in. However, Copper below $5000 is underpriced IF investors have an optimistic economic outlook (V-shaped recovery).

Copper prices repriced from peak-to-trough $1400 in March touching through $4500, near 2015/16 lows. High single digit intraday swings are not unusual, given the extreme volatility in Oil and stock market, but also with participation rates and ownership drastically down because of other structural changes like the LME open outcry switching to electronic. The resilience of Copper in early March above $5500 was ill-founded and found out, as it attempted to price in Chinas return to work, the return of pent-up demand and aggressive PBOC stimulus measures (an East "V"-recovery). That narrative changed as China's reliance on trade with the ROW (Europe and the US) looked increasingly fragile while PBOC was/is hesitant to replicate largescale 2009-like stimulus measures. US$ strength/ EMFX weakness, liquidity issues and cost deflation (from energy costs) contributed to the asymmetric price response to supply/demand shocks. There is however a current bias tilted to the upside after macro uncertainty unwound and risk assets were boosted (due to improving health stats from China & Europe), combined with some optionality around a potential Trump infrastructure bill

Supply vs demand: While production disruptions in Peru, Chile, Mexico and Canada with extended lockdowns (Peru now until the April 26th), ultimately removing 1.3% of global supply from balances, and new risks emerging on daily basis (Panama ordering a First Quantum copper mine to temporarily shut; Glencore shutting Mopani mine in Zambia) there is still an asymmetric response to the *fear* of demand, over the fear of supply, which will persist, until the economies begin reopening. Downstream indicators in China of copper demand is improving as factories re-open (fabricators are reportedly operating ~80% of usual utilization rates for the time of year), but major export headwinds loom large as the ROW has joined the cascading economic and social shutdowns. Some economic numbers confirm a soft 'v-shaped' Chinese recovery, but the quickly deteriorating global economy (with EM, India, US extending lockdowns) is likely to dampen external trade into Q2.

Stocks: That dynamic is slowly starting to play out in the divergence in inventories with SHFE stocks having already peaked & reversing aligned with Chinas "comeback" in March. On the flipside, we should probably begin to see ex-China inventories (CME, LME) begin to rise on weak external demand in Q2, and due to anecdotal talk around some shipments originally bound for China being redirected to LME warehouses. In addition, lower financing rates due to CB policies, is also luring some metal into non-LME registered warehouses due to attractive rent-deals and in the absence of much physical spot interest. What you see, (warehouse) stocks, isn't what you get and a better physical proxy for real demand are physical premiums and spreads (comfortably in contango)

Technicals, positioning & liquidity: The chart on slide 7 simply outlines some 'less technical' inflection points to consider. The recent tentative hold and rebound around $4500 is a constructive development, indicating some decent physical buying & conviction has emerged. Copper continues to be the accessible macro/China darling that is still vulnerable to an evolving health & economic crisis and contingent on where risk and credit markets are heading. But for prices to fairly internalize a U-shaped recovery, they should be lower than before COVID-19 (i.e.: below $6,100 in the short-medium term) with tactical bullish opportunities, as is usually the case, contingent on further reflationary policy intervention (eg: US infrastructure bill).


Relative EM underperformance (vs DM)
a drag on base metals
Base Metals Index (R2)
EM vs DM Equities (MXEF Index / SPX Index) (R1)
Monthly correlation between Base Metals & EM/DM equities proxy = +0.60
0.90
0.80
0.70
0.60
0.50
0.40
0.3184
250
200
150
144.35
100
'04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16 '17 '18 '19 '20
Source: Bloomberg, Scotiabank Commodities Strategy
CMDIBASS Index (Bloomberg Base Metals Spot Price Commodity Index) EM/SPXstocks v
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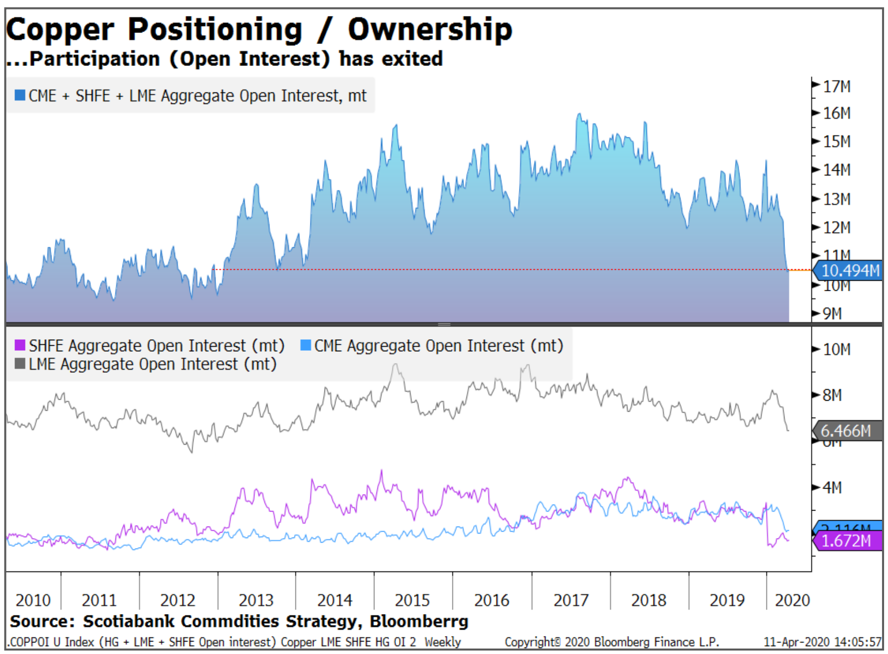
Copper Positioning / Ownership
...Participation (Open Interest) has exited
CME + SHFE + LME Aggregate Open Interest, mt
17M
16M
15M
14M
13M
12M
11M
10.494M
10M
9M
SHFE Aggregate Open Interest (mt)
CME Aggregate Open Interest (mt)
LME Aggregate Open Interest (mt)
10M
8M
6.466M
4M
1.672M
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020
Source: Scotiabank Commdities Strategy, Bloomberg
COPPOI U Index (HG + LME + SHFE Open interest) Copper LME SHFE HG OI 2 Weekly
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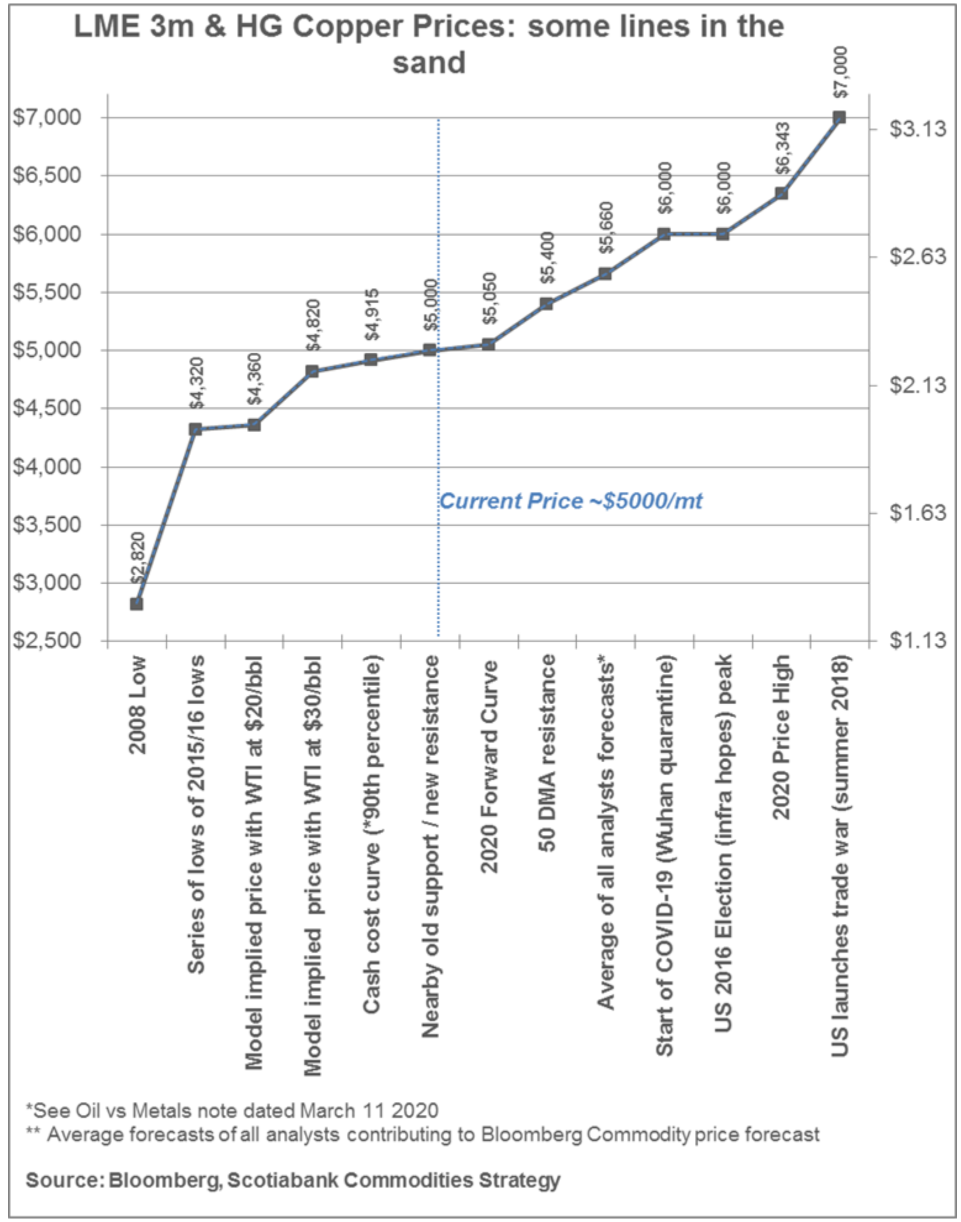

LME 3m & HG Copper Prices: some lines in the sand
$7,000
$6,500
$6,000
$5,500
$5,000
$4,500
$4,000
$3,500
$3,000
$2,500
$3.13
$2.63
$2.13
$1.63
$1.13
Current Price ~$5000/mt
$2,820
$4,320
$4,360
$4,820
$4,915
$5,000
$5,050
$5,400
$5,660
$6,000
$6,000
$6,343
$7,000
2008 Low
Series of lows of 2015/16 lows
Model implied price with WTI at $20/bbl
Model implied price with WTI at $30/bbl
Cash cost curve (*90th percentile)
Nearby old support / new resistance
2020 Forward Curve
50 DMA resistance
Average of all analysts forecasts*
Start of COVID-19 (Wuhan quarantine)
US 2016 Election (infra hopes) peak
2020 Price High
US launches trade war (summer 2018)
*See Oil vs Metals note dated March 11 2020
** Average forecasts of all analysts contributing to Bloomberg Commodity price forecast
Source: Bloomberg, Scotiabank Commodities Strategy

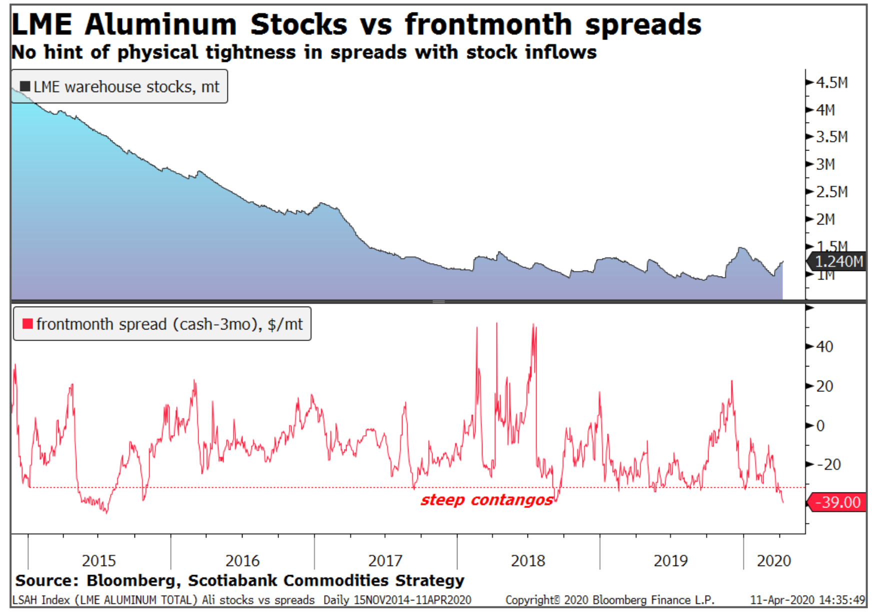
ALI: the largescale demand shock particularly to the transportation industry, hit prices and outlook with the old slow grind lower to accelerate. Global national lockdowns and escalating auto closures to reduce demand drastically, almost 10%, taking the Ali balance into a larger surplus closer to 6m mt in 2020. However with prices through cash costs largely ex-China, smelter closures and a slower ramp up of Chinese smelter expansions will lower that surplus in 2H'2020 and particularly in 2021; outright prices are falling faster than falling cost of production costs (due to the oil/energy price collapse).

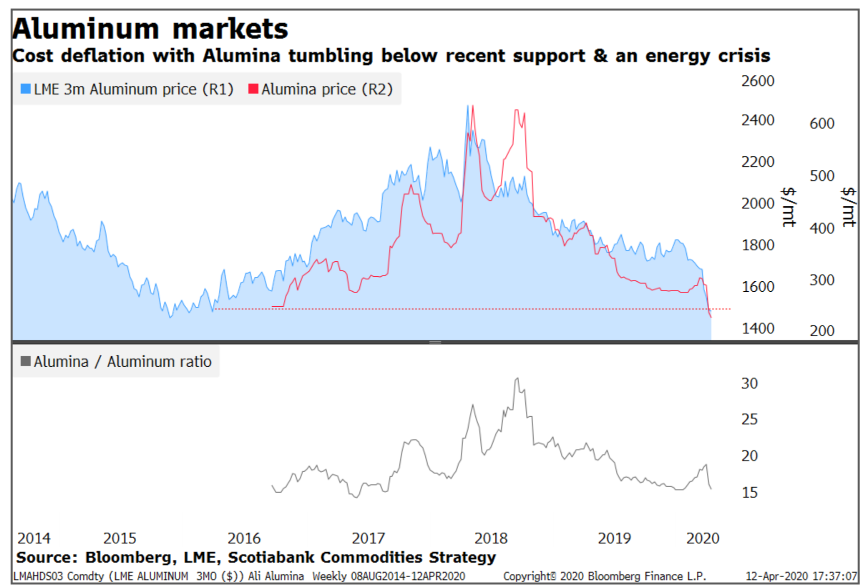
The persistent and steady decline in Aluminum prices accelerated, as 3m carved out new lows in March through $1500, levels not seen since the 2015-2016 Chinese deleveraging crisis. While known LME inventories remain historically low, recent inflows of ~200k mt supports the thinking of ample unknown stocks that can become readily available at any time, especially during periods of demand slack.

There are major demand headwinds, as auto production is expected to fall by almost 10% (led by Europe) given automotive plant closures, and consumer demand that is lost (vs imply being delayed until 2H'2020), which is somewhat offset by expected smelter closures; around 2m mt of production is at risk given lower prices despite the fact that cost deflation is ever present (oil price collapse, weaker EM currencies and falling alumina pricing).

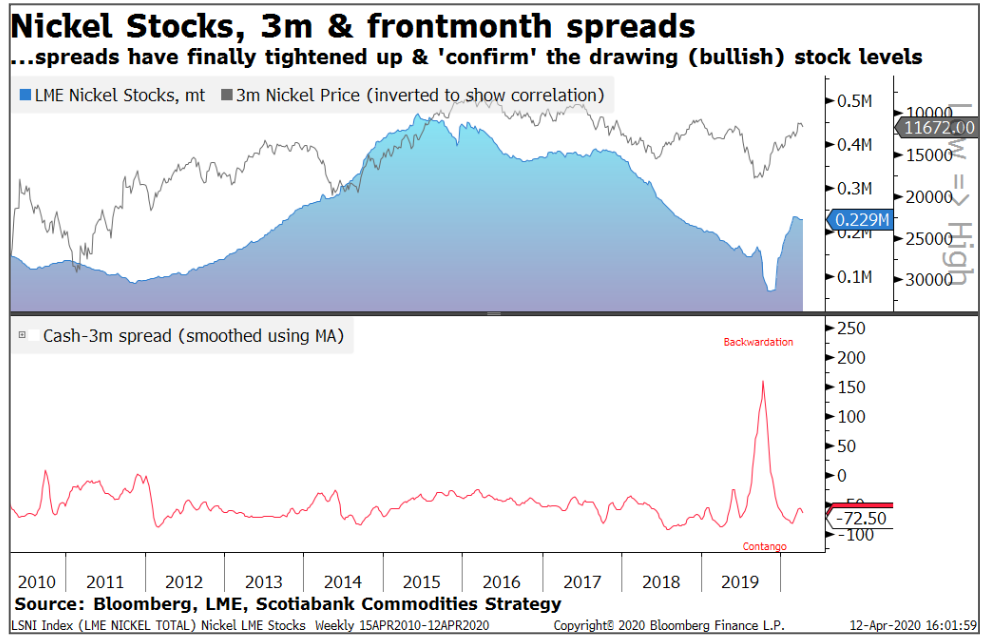
The expected 2020 surplus should drive some lasting changes on the supply-side and together with widespread fiscal and monetary stimulus, a rebound in 2021 from depressed price levels is likely. Chinese smelter expansions should slow while higher cost producers have begun to shut capacity (an estimated 70% of Chinese smelters are unprofitable) while in ROW, closures in 2H'20 (or sooner) should be a dominant factor.

In the near-term, theres are few positive drivers for Aluminum to regain $1800, barring a major supply-side catalyst/shock.



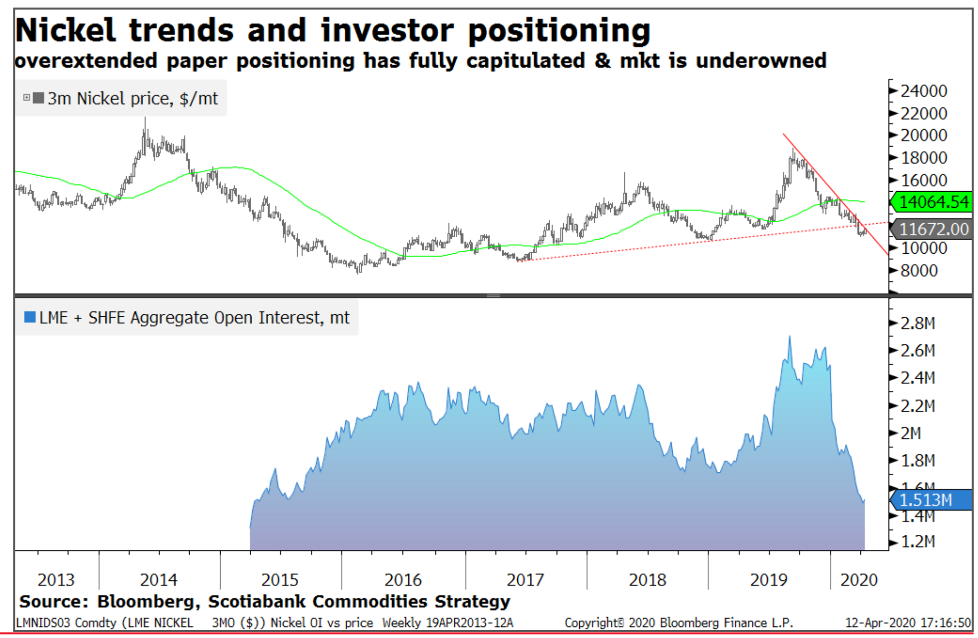


NICKEL: the multi-year destocking cycle seems to have now convincingly reversed with the impact of COVID-19 on demand and balances, despite the Indonesian export ban.



3M Nickel prices fell though $11,000/mt in extending its losses in March by ~6% with the global spread of the virus and its impact on demand. LME & SHFE nickel stocks have increased about 33% in the Q1 2020, creating additional headwinds for prices.

Despite the recent supply constraints from the recent Indonesian raw export ban, the nickel market to expected to post a significant surplus this year on weak global demand of around –3.5% (driven by weak conditions in chemicals, construction, oil and gas and other end markets). The largescale logistical disruptions to raw materials supply and product shipments in Q1, which started in China and shifted globally (widespread closures now in SA, European, India & NA has led) to reductions in both nickel production and consumption by SS producers.



The same concept outlined in this note — a fear of further demand destruction and on a net basis a larger actual impact on demand outweighing the fall in supply—has moved the nickel market balance where the multi-year destocking cycle seems to have now convincingly reversed; Scotia GBM has a ~60k mt surplus in 2020 (from ~30k mt deficit in 2019), with physical tightness only expected to be evident in mid 2020s.

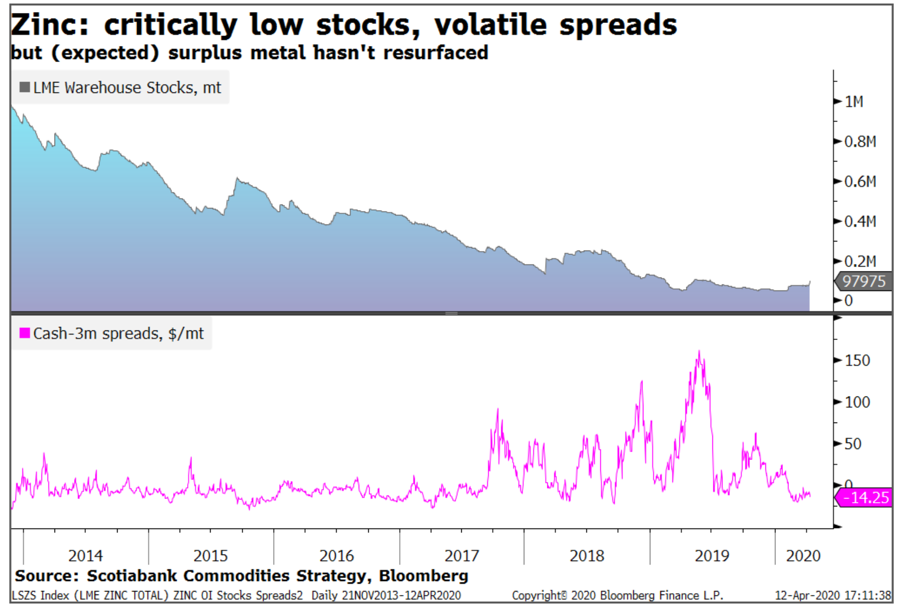
ZINC: it heydays are behind it; with demand destruction in 2020 and a structural (concentrate) surplus expected to lift exchange stocks over the next few years as it structurally enters renewed & deeper surpluses. That's unless theres a convincing response via the closure of mines (due to inability to sell concentrate at economic terms)

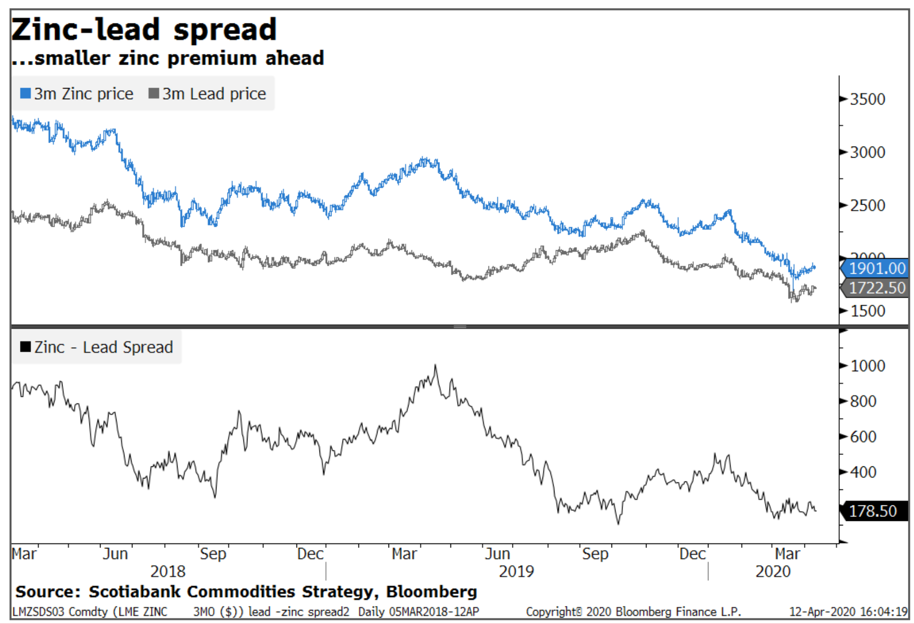
Zinc prices have fallen almost 17% in the Q1' 2020 dipping below $1700 (albeit short-lived) in March; with prices convincingly half its peak seen in 2018, the fundamentally tight bull market remains in the rear-view mirror.

With China accounting for almost half of the global demand, uncertainty remains how quickly the economy can recover from the crisis. And despite visible positive signs of China's slow economic recovery, many other global economies continue to struggle and remain 'offline' (such as Europe and North America) to contain the spread of the virus; demand for Chinese goods are due to decline.

The concentrate zinc market remains in a surplus and producers are currently facing dual threats related to being unable to sell their production due demand loss along with prevailing low prices for zinc & by-product credits and materially higher treatment charges . At prevailing low prices, many global mining producers have experienced cash flow squeezes inducing some to temporarily close; the length of these closures remains uncertain depending on the duration of the low price environment and national lockdowns.

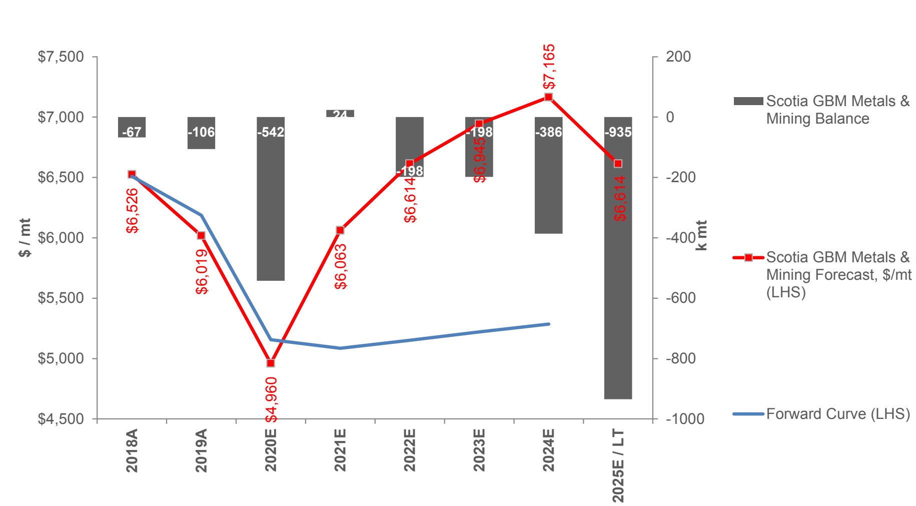
ON exchange zinc stocks remain at historically low levels, but with the market expected to swing into a large structural surplus this year of >500k mt (a 1m mt 'swing from the steep deficit seen last year), due to demand falling over 8% on weak transportation sector and global auto shut-downs, these should continue to ramp up; inventories are due to substantially rise over the next few years.





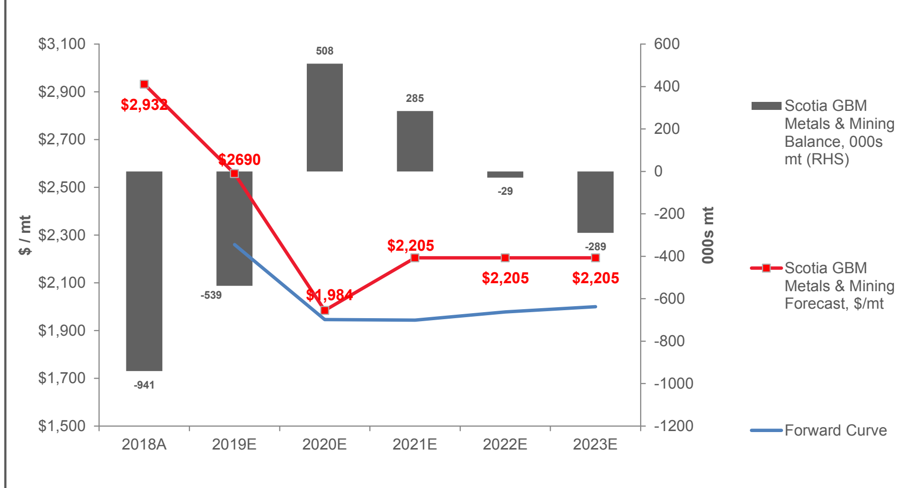
Base Metals fundamental balances, forecast and forward curves

Copper: Scotia GBM forecasts & balances vs the forward curve



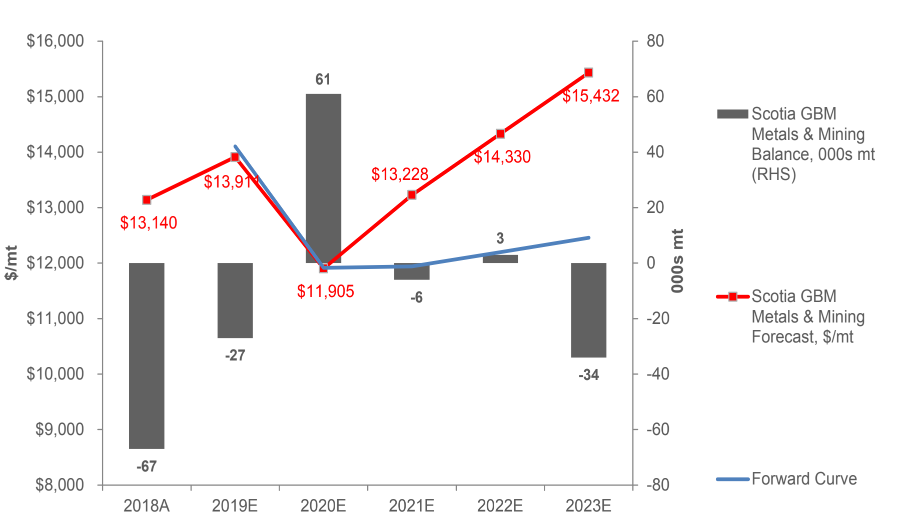
Source: Scotiabank Commodities Strategy, Bloomberg, Woodmac, Scotiabank GBM (Equity Research)

Zinc: Scotia forecasts & balances vs the forward curve



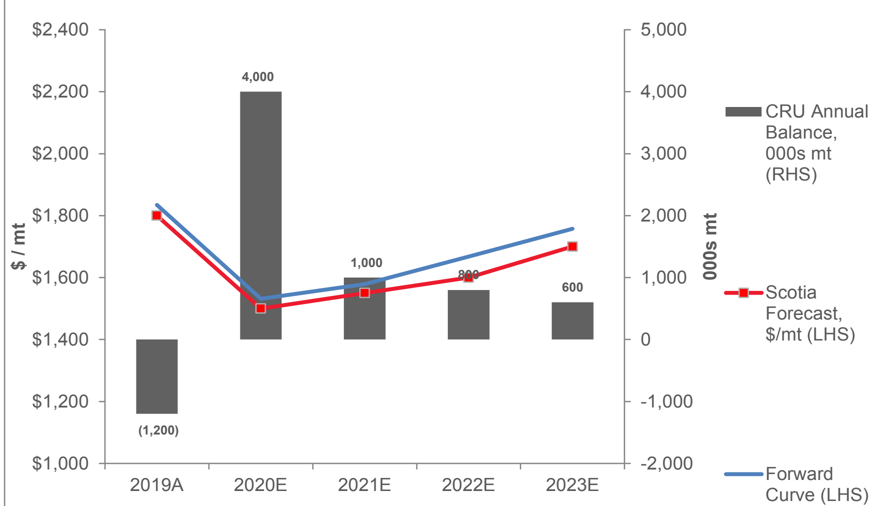
Source: Scotiabank Commodities Strategy, Bloomberg, Scotiabank GBM (Equity Research)

Nickel: Scotia forecasts & balances vs the forward curve



Source: Scotiabank Commodities Strategy, Bloomberg, Scotiabank GBM (Equity Research)

Ali: forecasts & balances vs the forward curve



Source: CRU, Scotiabank Commodities Strategy, Bloomberg

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