Quarterly Metals Report

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Analysis and Forecasts for
Base Metals, Precious Metals, Iron Ore & Steel

Q2 2019

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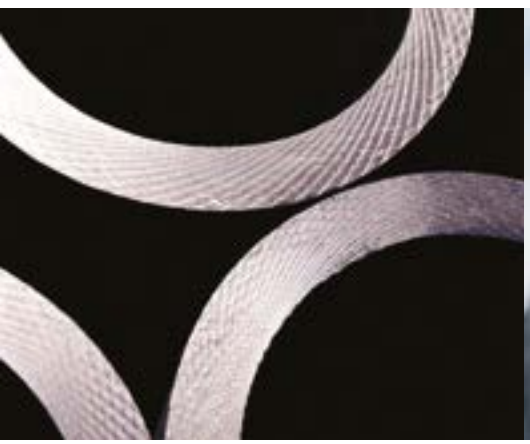


Summary

Uncertainty surrounding the trade war continues to cap gains for base metals. The Chinese stimulus package is likely to support base metals in the near term however; the increase in total credit should provide headwinds for China in the longer run. Another boon for the metals complex is the weakening of USDCNH; strong Chinese data, in addition to a weaker dollar for the remainder of 2019 should provide tailwinds to the renminbi. The U.S. economy remains stable but we see Europe as the biggest risk at the time of writing. Overall we maintain a neutral view on base metals until we see a trade deal and uncertainty is removed.

Aluminium – The Chinese domestic aluminium market remains supportive; this could prompt a reduction in aluminium semi exports. China has exported fake semis as mentioned in previous reports. We anticipate the alumina price to trend lower, reducing input costs for aluminium and providing headwinds to prices. End user demand remains soft and Rusal is expected to increase sales to the US. We expect prices on the LME to spend the majority of Q2 in the same range.

Copper - Near term demand for China is supportive for copper. The inflow of stocks into exchange warehouses affirms our view that material is being held off-warrant. We anticipate refined copper to continue to be supported by scrap regulations. The market struggles for conviction and an increase in risk appetite due to a trade resolution, which may trigger gains through $6,600/t.

Lead - Prices are under pressure as investors favour the zinc/lead switch, but the zinc premium has retreated from highs. This could favour lead as these positions are unwound. Auto sales across the globe act as a headwind to prices as well, March sales of petrol and diesel vehicles improved in Germany and this could support lead in Q2. We anticipate trading to remain between $1,900/t and $2,100/t with a trade deal pushing prices towards $2,150/t.

Nickel - Tsingshan is key to the nickel market, following China's anti-dumping duties on Indonesia, Japan and Europe we could see stainless production continue to improve in China. Rising stainless output has put downward pressure on prices, but strong 300 series profits should support nickel in the near term. We anticipate prices to push towards $13,500/t with advances to $14,000/t sold into.

Tin – The bullish case remains a long term trend but semiconductor figures are softening and prices have tumbled. We expect prices to be supported towards $19,000/t with the top end of our range at 21,000/t. Persistent trade tensions and poor semiconductor sales may trigger a break towards $18,000/t which would bring into question the long term bull trend.

Zinc – We maintain our constructive view on zinc as white goods demand has started to grow once again. TCs have started to respond at higher concentrate levels, utilisation rates remain high and we expect refined material to flow back to the market. We expect the majority of trading to take place in a $2,700/t to $3,000/t range.

Iron Ore & Steel - We anticipate the Chinese steel market will grow in 2019, but at a slower rate. Steel profit margins have softened, which is a worry for some steelmakers. The rise in iron ore costs are expected to support steel prices in Q2 and continue to favour higher quality iron ore fines and pellets. The re-opening of the Brucutu mine could help alleviate some of the supply shortage. We anticipate trading to remain in a $75/t-$90/t range with softer Chinese demand pushing prices towards $70/t.

Gold - Central bank purchases are growing at record rates, as the process of diversification away from the dollar becomes more prevalent in European countries. The gold market faces headwinds in the immediate term as the US economy stabilises at lower growth levels. Global stock indices remain high outlining risk appetite, and a reversion of this trend would increase haven demand. We anticipate the majority of trading to take place between $1,250/t and $1,310/t as risk appetite prevails.

Silver – Industrial demand for silver remains robust with the BNEF forecasting growth of 15% for solar power in 2019. ETF holdings have fallen in recent weeks suggesting that investors question the rally. Risk-on appetite and a lack of speculator activity may set the scene for silver to pare gains in the immediate term. We anticipate spot silver to be well supported at $15/oz with the upper band of our range at $16.50/oz.

Palladium - The time lag for manufacturers to switch to platinum is long and this will provide tailwinds to palladium in the near term. Strong demand and tighter emission regulations project a positive outlook for palladium, according to Nornickel's end of the year results statement. Along with that, moderate growth in all major mines is forecast for 2019, easing the tightening conditions, with an additional 0.2Moz and 0.1Moz coming from South Africa and Russia respectively. We expect prices to remain on trend towards the record high.

Platinum - The Association of Mineworkers and Construction Union, one of South Africa's mining unions, have 60 days to convince parties that their registration as a union should not be cancelled. Prices have gained as expectations for tough wage negotiations this year has raised the threat of supply disruptions in South Africa. Speculator interest has waned slightly and we expect prices to range between $800/oz - $1,100/oz.

Market Overview

Global Outlook: Previous fears of slowing global growth have fed into market sentiment in recent months, with IMF confirming the growth downgrade to 3.3% in 2019 and 3.6%, from 3.7% and 3.7% respectively since their previous report. Major Manufacturing PMIs have recovered in March from low February performance; however, remain weak as US and EU pushed down to 52.4 and 47.5 respectively, while Chinese performance improved to 50.8. Successful US-Sino trade negotiations, delayed Brexit, signs of German manufacturing recovery and Chinese stimulus might add to economies' notable headwinds, however, as of now, political uncertainty in emerging market economies and array of sanctions from the US will feed into the risks. That said, despite record low global interest rates, many major economies have halted their monetary tightening policies and turned towards a more dovish outlook on fears of decelerating growth. The 10yr Treasury yield closed Q1 under 2.3%, and since then has shown signs of inversion, triggering recessionary fears. Emerging markets are experiencing some relief as interest rates have stabilised, however the dollar continues to strengthen.

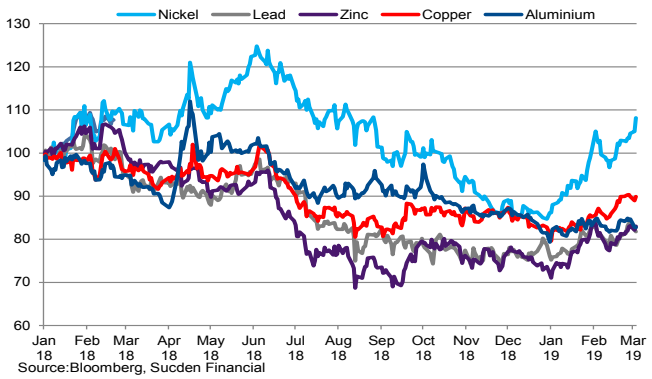
As from our previous report, oil market sentiment continued its bullish momentum in Q1, following OPEC+ partners' promises on production cuts. Compliance rates from Saudi Arabia and UAE have been strong, whereas Russia and Iraq lagged in curbing supply cuts. Saudi has shouldered most of the burden and reduced output to 9.78m barrels a day in March, 324,000 less than February and 500,000bpd below the 10.311 commitment. Russia, which is responsible for 60% of cohort's agreed cuts, has urged OPEC and the partners to raise oil output by June 2018 as improving market conditions and falling stockpiles prevail. Brent crude prices edging up towards $75 a barrel on 24th of April are above the $65-70/b target that Russia set as crude benchmark for 2019 and are set to further rally in April.

From the supply side, Saudi Aramco released data that outlined their Ghawar oil field only has capacity of to 3.8m bpd instead of 5m bpd previously touted, according to a recent company report. According to Kuwait's University Report in 2010, Saudi is to reach its peak production in 2027. US production edged lower in January to 11.8m bpd from December highs at 11.9m bpd. A report shows a drop in US drilling activity, as oil exporters curtailed activity in US fields for the first time this month. Additionally, Trump's decision to let Iranian waivers expire could seriously dent OPEC+ performance in Q2. The state department expected that Saudi will contribute to increasing production to offset the loss of Iranian exports and prevent prices from rising. Saudi responded that it will not rapidly ramp up its output as the market is believed to be 'well-supplied' and inventories continue to rise.

Industrial metals rally, with LMEX yielding 11.96% returns in Q1 on optimism over a trade deal between China and the US and China's stimulus package ramping up the demand. The latest news from the US Fed and shift to a more accommodative posture on monetary policy could put a cap in the dollar and interest which is a favourable environment for the prices of base metals and industrial commodities. The ECB remains dovish which is another supportive factor. Trade issues will remain as major demand headwind for Q2. As of April 24th the 90-day volatility index stands 15.46%. We believe that the Chinese stimulus package will provide healthy tailwinds to metals if trade tensions subside.

Base Metals Index

Base metals have trended higher but nickel is the top performer so far.



Source:Bloomberg, Sucden Financial

US: In the US, the first signs of further deceleration were felt in Q1 as lower than expected Q4'18 growth figures fed into the market's downbeat sentiment. Current market survey on Q1 growth stands at 2.2% q/q, similar to Q4'18, and inflation stays below its target at 1.9%. Following the inversion of US 3-10yr bonds, market anxiety has been amplified. According to the IMF, US GDP growth is predicted to slow to 2.5% in 2019 from 2.9% in 2018, in part due to continued trade tensions. We do not envisage markets entering into a recessionary period in 2019; a trend of more moderate deceleration will continue through Q2, and we see a window of opportunity for recessionary signs later in 2020/21, the New York probability of a recession has increased in recent months to 27.08% as of April 25th.

The key theme of Q1 is one of the bond buying. The rally has lifted the value of fixed income assets and sent the yields tumbling, with 10yr yield declining from 3.24% in November to a 2-yr low at 2.33%, as investors remain downbeat about economic growth, and ramped up expectations for the Fed to cut this year arise. High demand for the bonds from overseas is driven by softer growth expectations in China, Europe and the UK, where Brexit remained one of the most significant economic hinders.

At the beginning of 2019, the Fed guidance strongly implied a dovish pivot away from 2.25-2.50% rates, following months of scrutiny from the President for raising the rates too high. The slowdown of hikes was expected as American economic outlook deteriorated; however, the market has reacted positively with DXY gaining 2.62% (10/1 – 01/4), and S&P 500 edging 12.34% in the same period. Volatility metrics have declined from December sell-off highs of 36.07 to 13.71 by the end of the quarter, and yet still to confirm the March equity rally. The slowdown in other major economies may compound headwinds for the U.S. economy. Additionally, the Fed announced a more flexible approach to shrinking their bond portfolio along with lowering the pace of its balance sheet reductions from $50b to $35b a month, counteracting the effect of halting in rate hikes.

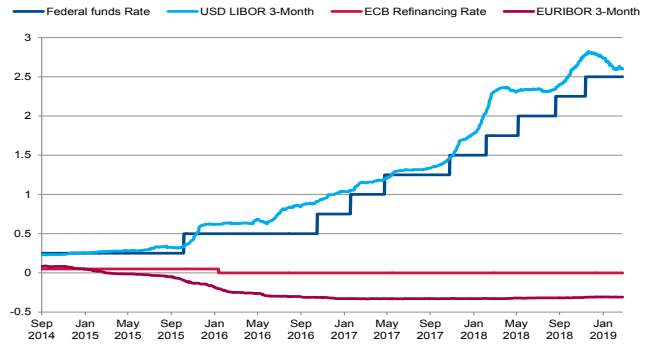
The labour market remains strong at 3.8%. 196k non-farm jobs were added to the US economy in March, despite a dip to 20k in February as the economy adjusted after the government shutdown. CPI y/y is at 1.9%, and average hourly earnings have inched up to 3.4% y/y in March. Market outlook remains mixed, we see the US economy starting to stabilise in Q2, despite market indices suggesting a further slowdown in Q2. University of Michigan Consumer Sentiment declines to 96.9 in April from pre-market sell-off figures, and economic optimism index projected to fall from 55.7 in March to 52.0 in May. Meanwhile, the trade deficit widened in 2018 to a 10-year

high of $621 billion amid stronger dollar made U.S. exports pricier.

OPEC and its partners have largely upheld their promise of production cuts, exemplified by Brent crude picking up by 39% in YTD. The recent gains have been attributed to the US ending Iran oil waivers. EIA projects an average $65/barrel for Brent spot in 2019, $9/barrel lower than the price on April 23rd. Specifically, the Fed highlighted that the committee could afford to be patient on rate hikes as long as muted inflation pressures prevail. Higher energy prices could provide tailwinds to inflation however, we see Core CPI staying around the target of 2% for 2019.

Western Economy Interest Rates

US LIBOR has moderated but the difference between EU and US is substantial.



Source: Bloomberg

Europe: The economic growth continues at an anaemic pace, according to the ECB, the Eurozone grew by just 0.2% in Q4'18 and is projected to grow by 1.1% in 2019, down from 1.7% in December. Germany saw zero growth, while Spain and France supported the union's performance and Italy enters a technical recession, despite established political stability. Weakness in the manufacturing sector acts as a drag to the economy and is unsurprising due to the bloc's reliance on exports. The EU manufacturing purchasing managers' index dipped to 47.5 in March from January's final reading of 50.5, as Germany fell through the spell of weak automotive production.

Banks initially drew support from reports of a new ECB programme of lending; however, the details released in March disappointed some in the market, while ongoing low-interest rates may continue to erode net interest margins. In March, the ECB acknowledged the extent of the euro area's slowdown and sought to alleviate it with a new round of TLTRO's.

Eurozone equities show some signs of recovery, rebounding from Q4'18 weakness, reflected in MSCI EU index climbing 14.12% over Q1. Stock markets were supported by central banks dovish pivot away from monetary tightening, with ECB pushing back its guidance on rate hikes until the end of 2019. According to French central bank, 'yellow vest' protests have caused significant disruption to the economy, growth forecasts have been cut in half from 0.4% to 0.2% GDP.

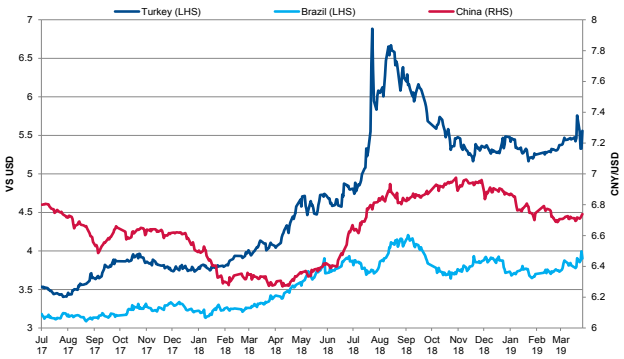
Retail sales have trended higher in Q1, rising to 2.8% y/y in February from 2.2% y/y in January. The unemployment rate held at a multi-year low at 7.8%, however anaemic inflation outlines the continued failure of the Philips curve. Productivity continues to drag in the economy, as does consumer confidence which fell to -7.9 in April as Brexit uncertainty prevails. Furthermore, although economic sentiment continued to fall in February, the pace of decline moderated significantly. Sentix Investor Confidence index tumbled to 2014 lows in February, before picking its pace again. What is more, trade tensions have escalated with the US. A boon for the Eurozone is the increase in regional investment, exemplified by 60% of FDI in Europe coming from within the region in the last 10-years.

In Germany, after narrowly avoiding recession, the data in Q1 is mixed. Record low unemployment, slowing inflation and improvements in wage growth have led to increased confidence in the market from lows of Q4. That said April's IFO Business Climate figure pointed to a more modest outlook in Q2, as it drops to 99.2 in April from 99.7 in March. In fact, data points to a clear contrast between the manufacturing and service sectors: with the former hitting a record low at 44.1 in March, and the latter recovering from December lows up to 55.4 in March.

In European bond markets, 10-year bond yields were more than 30bps lower and fell below zero toward the end of March for the first time since October 2016. As a consequence of active monetary policy, the resurgence of sub-zero debt is an indicator of recession angst in the markets. Last time the economy held a stockpile of below-zero corporate bonds; the ECB was accumulating billions of company debt, driving yields even higher. In our view, Europe is a greater risk than the US and China as manufacturing and composite indicators soften.

Emerging Market Currencies

Political uncertainties provide headwinds to Turkey and Brazil



Source: Bloomberg

Emerging Markets: The dollar's strength, particularly in Q2-Q3'18, exerted severe downward pressure on emerging market currencies, shown by MSCI EM Currency Index tumbling 9.03% over 2018. Those countries with high US dollar-denominated debt and high current account deficits were significantly affected by its strength. Now, that the US economy is past its peak, emerging markets and developing economies have had some relief and are expected to grow 4.5% and 4.9% in 2019 and 2020 respectively, according to the IMF. The oil rally will add strengthen headwinds for India and Turkish currencies, exemplified by the recent rupee selloff to 70.20.

Economic support has been felt by emerging economies, particularly from China, which was reflected in MSCI EM Index gaining 13.73% from Q1 lows and highs, and 108.20 points gained in January alone. The JP Morgan EM Spot FX Index has trended sideways since January and stands at 62.530 up 0.50% q/q.

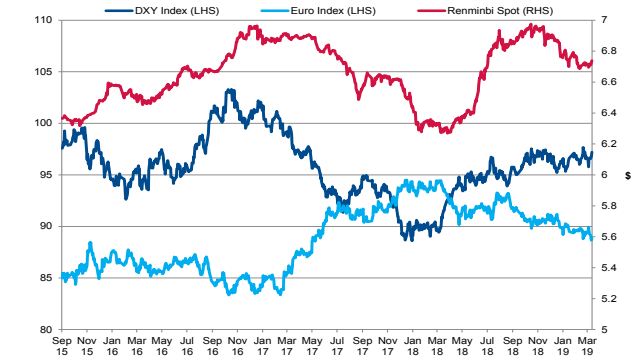
China's economic growth slowdown stabilised since the beginning of 2019, following the government downgrading this year's performance target to 6-6.5%. Aside from easing relations with the US and stimulus measures supporting the economy, debt levels are forecast to rise as Chinese economy with aggregate financing ballooning in March to 2.86trn in yuan, an increase of 80.28% y/y total credit generated 8.20trn yuan in Q1, up 40% y/y.

Real GDP in Q1 has hit 6.4%, unchanged from the rate of growth

seen in Q4 of 2018, when markets had expected a dip at 6.3%. In the face of strengthening economic and political challenges, the Chinese authorities continue to respond with higher public spending, promising 2trn yuan of tax cuts in Beijing alone. The number of job seekers has edged higher, to the highest levels since 2011 while the demand for staff has declined following record low January Manufacturing PMI figures (Lunar New Year impact)

Major Currencies

The strengthening Reminbi is supportive for base metals.



Source: Bloomberg

Following the pause in the policy-tightening cycle in the US, poor European performance and new stimulus injections, China saw a surge of foreign investment into the economy. Overseas investors have bought a combined 120 billion yuan ($17.8 billion) net of A-shares through trading links with Shenzhen and Shanghai. Shenzhen Component and Shanghai Composite Indices gained 30.14% and 46.58% q/q respectively due to the stabilising dollar along with promises of US-Sino agreement. Dollar strength and uncertainty surrounding a trade deal may weigh on the index.

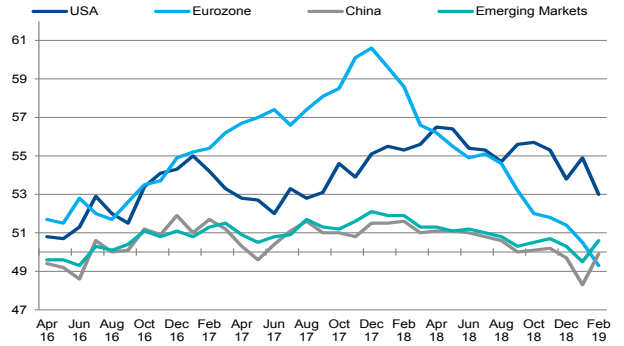
Jair Bolsonaro's election transformed the sentiment of Brazilian markets, who were initially excited about the prospect of fiscal and broader structural reforms at the beginning of his presidency. However, as new pension reform implementation takes much longer than expected, Real growth is much more moderate than in 2018. At the current rate, pension expenditure as % of GDP is set to reach 10% as of 2030. The recent weakness in the BRL outlines the fragility of the economy, and we attribute this to Bolsonaro struggling to make progress on his campaign promises. Current Selic rate stands at 6.5% and with a more dovish policy shift coming from the US, new CB governor Roberto Campos Neto might cut the IR at least once in 2019. Brazilian inflation has increased in March to 8.27% beating expectations, and Q4 GDP was 1.1%, falling below estimates. With little sign of inflationary pressures and economic activity disappointing, analysts don't anticipate any monetary tightening before mid-2020. Some even see the potential for easing this year.

As Brazilian the pension report passes the first test through a congressional committee, hopes for further reform development with the Congress resurface. The bill was backed by Brazilian congress after a long debate however; the BRL sold off as investors believed the approved legislation was a watered down version of the original proposal, there a still many hurdles remaining for the bill. Investors remain confident that economically the bill is right for Brazil; uncertainty is pinned on the government's ability to get it approved. The bill can tackle Brazil's fiscal position and reduce pension payments from R$1tn. In the short term, this should give a decent boost to the Real and Brazilian stock markets.

The latest oil rally on the news of US ending Iranian oil waivers could be a slight headwind to Turkish Lira that is one of the biggest importers of Iranian crude. Lira has weakened 5.3% in Q1 and dollar strength has continued with the pair standing at 5.849 on 23rd April. An oil rally along with high levels of borrowing by Central Banks to boost reserves could put additional pressures on Lira in Q2. Current repo rate stands at 6% and majority of investors believe the rates remain unchanged at 25.04, despite Turkish inflation hovering at more than four times the official target.

Manufacturing PMIs

Emerging markets and China PMIs have improved but EU is contractionary.



Source: Bloomberg

PMIs: IHS US Markit manufacturing PMI output declined sharply from January highs at 54.8, dipping to 52.4 the lowest value since June 2017. April data is forecast to remain the same. Additionally, the first quarter average of 2019 was the weakest since 3Q'17. The decline is attributed to softer increases in output and new orders, in line with weaker economic demand. US CPI has softened to 1.5% y/y in February, before recovering to 1.9% y/y, stronger raw material prices were driven by the impacts of US tariffs and greater demand for inputs. Nevertheless, the rise in factory gate prices came back to December 2017 lows. February data was disappointing; however, has picked up in March as new product developments and increased productivity took place.

Eurozone Manufacturing PMI Index edged to 47.8 in April, 2-months high from 47.5 in March. April data outlines a continuation of disappointing growth in Eurozone, and the manufacturing sector reported further contraction as the service sector cooled. German manufacturing performance remained the biggest headwind to EU data in Q1. France, however, stagnated at 49.6 in April, from 49.7 in March as economic growth dropped to 1.0% in Q4'18. New order growth in the EU picked up marginally, remaining close to stagnant. New export orders fell sharply for the 7th month straight. CIPS UK PMI has been on the decline during the first two months of 2019, however, regained its strength in March, edging up to 55.1 for the first time in 12-months.

Caixin Chinese Manu Index has entered expansionary territory in March to 50.8, for the first time since November 2018, finishing the quarter with hopes of manufacturing recovery in Q2. Firms indicated quicker output and increases in overall new work, while employment edged up to the highest levels since 2014. Average input costs rose slightly, though companies generally passed this on to clients in the form of higher selling prices.

Aluminium - Falling Alumina Prices A Headwind

Source: Bloomberg, 26.04.19

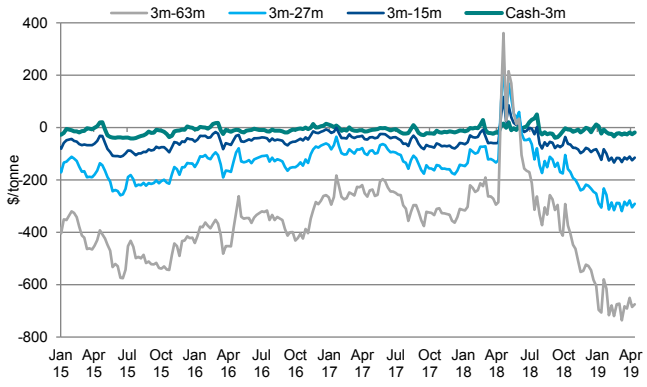
Summary

The Chinese domestic aluminium market remains supportive; this could prompt a reduction in aluminium semi exports. China has exported fake semis as mentioned in previous reports. We anticipate the alumina price to trend lower, reducing input costs for aluminium and providing headwinds to prices. End user demand remains soft and Rusal is expected to increase sales to the US. We expect prices on the LME to spend the majority of Q2 in the same range.

Q1 Recap: Aluminium prices on the LME traded sideways for the majority of Q1. The 3-month contract oscillated in a tight range of $1,800/t – $1,950/t. The lifting of sanctions on Rusal will act as a tailwind to the company's sales in 2019, however tensions remain high between the U.S. and Russia and investors should remain wary of re-escalation of sanctions. Geo-political tensions have dampened sentiment for the aluminium and other base metals in the last 9 months. IMF Managing Directors Christine Lagarde has repeatedly warned against harmful protectionist policies and the recent downgrade of their global economic growth forecast is another indication of just that. The IMF estimate that global growth will be 3.3% in 2019 a 0.2% cut from their January forecast.

Aluminium Calendar Spreads

Longer term spreads remain in deep contango but cash-3 sees a tighter market



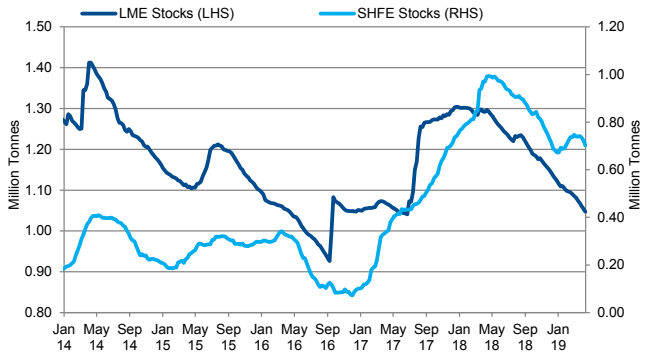
Source: Bloomberg

LME inventories trended lower in Q1, following the significant inflow of material in Q4 2018 and January, for that matter. Global LME stocks of primary aluminium fell to 1.129m tonnes in Q1, a decline of 11.3%. However, the falling inventories failed to give rise to the flat price in Q1 even though cancelled warrants increased to 35% of total LME stocks at the close of the month, although this figured peaked at 47.8% on February 7th. The cash to 3- month spread started Q1 at $13.60/t backwardated but quickly moved back towards $20/t contango, the spread averaged $20.62/t contango for the remainder of Q1.

Furthermore, according to SMM, the Australian alumina FOB prices has trended higher since the end of January to $420/t, this failed to translate into an improvement on the flat price. Elsewhere in the alumina market, Alunorte signed an agreement with the Public Prosecution Service of The State of Sao Paulo. The Federal court in Belem has scheduled a conciliatory hearing on April 12th to discuss the output at Alunorte. External reports indicated the refinery should be allowed to resume at 100% capacity although the recent Vale disaster is likely to add weight to the opposition's argument.

LME vs SHFE Stocks

Exchange inventories have declined in recent months but combined stocks are 1.72mt.



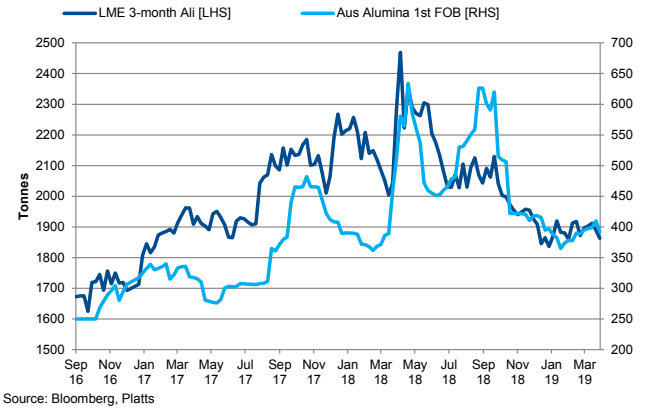
Source: Bloomberg

Outlook: Aluminium stocks continue to decline despite the softened global demand outlook. Combined exchange inventories (LME+SHFE) stand at 1.712m tonnes, and while this indicates an improvement in consumption, global economic indicators fail to confirm the premise of strong demand. However, following the tax cut from China's congress of RMB2trn which was significantly larger than 2018 and includes the reduction in VAT, end user demand has improved in China as social inventories of primary aluminium across 8 areas declined through to April 18th. Downstream producers restocked only when necessary through to 18th April, according to SMM as many restocked material before tax cuts.

Chinese exports of alumina climbed by 27.6% y/y to 4,439 tonnes in March but imports surged by 233.5% y/y to 30,000 tonnes; this brings alumina exports to 150,747 tonnes for Q1 a y/y increase of 1,220.4% against a decline in imports of 13.9% y/y at 160,000 tonnes. Chinese unwrought aluminium and aluminium products reached 343,000/t in February down from January. In our view, alumina prices will start to subside in Q2 as availability increases due to capacity in China coming back online in April, following the March environmental inspections. We anticipate exports to be capped due to the influx of Chinese capacity increasing domestic demand for alumina. Capacity from Weiqao Group, Yunnan Alumnium and Western Hydro Power comes back online. According to SMM, alumina prices in major regions fell to 2,646RMB/t on Friday April 12th. We hear reports of 30,000mt of alumina sold in Brazil; shipments are expected to start at the beginning of May. Norsk Hydro has asked Brazilian courts to lift the embargo on Alunorte, however we wait an official decision.

3-month Aluminium-Price vs Alumina

Alumina costs have trended lower as supply fears ease.

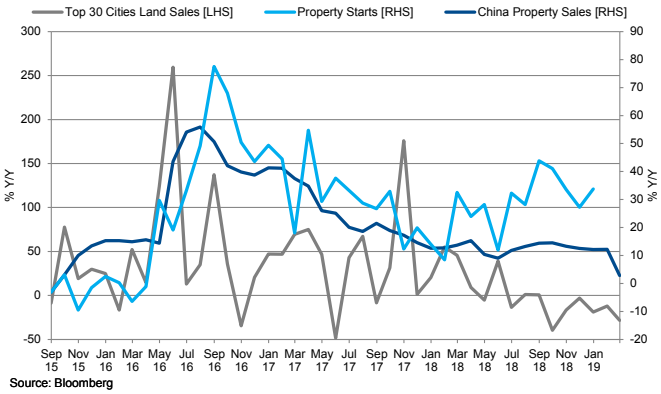


Source: Bloomberg, Platts

Alcoa financial results failed to improve sentiment in the aluminium market, results showed a net loss of $199m or $1.07/share; excluding special items adjusted net loss was $43m. Indeed, adjusted EBITDA was $467m according to the company presentation. The company indicated performance was solid and suggested production rate increases in Q1 for Bauxite and Alumina. Company filings suggest a realised alumina price of $385/t and primary aluminium price of $2,219/t. The company remained hopeful of stronger performance due to the considerable deficit in primary aluminium for 2019 with Wood Mackenzie forecasting a supply shortfall of 1.2m tonnes. Wood Mac also suggests that the alumina incentive price is $380/t and the Australian alumina FOB price is below this level as of April 23rd at $363/t.

China Property Market

Stimulus has supported property starts but slaes remain lacklustre.



Source: Bloomberg

The tight fundamental outlook remains intact but falling cost pressures have capped aluminium prices. In conjunction with soft global economic data, most notably from Europe, aluminium prices look set to remain under pressure in the near term as physical demand remains weak. German manufacturing and manufacturing orders tumbled since the start of 2018. Indeed, manufacturing orders reached 8% growth y/y in December 2017 but as the protectionist stance from the US and China set in and the European economic growth ran out of steam, manufacturing orders started to decline with the indicator recording a year on year decline of 8.4% in February.

After the US lifted sanctions on Rusal, we anticipate Rusal sales to start to rise even though section 232 tariffs remain. Company filings outline the increase in uncertainty and political risks as a result of the sanctions. Russian entities were finding it difficult to access international equity and debt market and became increasingly reliant on local sources of finance. The threat is still high and we anticipate finance availability to be tight for Russian entities and Rusal. According to Wood Mac, during sanctions the company produced T-bars using VDC slab casters instead of ingots. As a result, there is a considerable amount of T-bars in Europe and Asia. Company filings indicate global sales improved in 2018 to 24%.

Uptick in LME prices could be attributed to some short covering from investors but prices on the LME remain firmly on the downside. The LME aluminium grand COT net position climbed to a 6,276 long as of April 12th, however investment funds remain heavily short at -22,0159 contracts up to the same date. The improvement in risk appetite could provide support for prices in the near term; however we expect gains to be capped by moderate economic growth. Option open interest for June is 14,522 contracts with large interest around a strike of $2,100. There is also considerable interest at $2,000/t and $2,050/t. This outlines that the market favours a correction to the upside, as trade war sentiment improves and helps to release pressure on the world economy.

Copper - Stimulus & Scrap Policy Supportive

Source: Bloomberg, 26.04.19

Summary

Strong Chinese stimulus data has failed to excite the copper market. We anticipate the stimulus will keep copper prices on the front foot in Q2; however the longer term outlook for China remains dubious due to the increase in aggregate financing. The inflow of stocks into exchange warehouses affirms our view that organisations are holding stock off-warrant. We anticipate refined copper to continue to be supported by scrap regulations. The market struggles for conviction and an increase in risk appetite due to a trade resolution may trigger gains through $6,600/t.

Q1 Recap: Copper prices gained 8.5% and showed its resilience in Q1. The metal was buoyed by Chinese stimulus and reports of positive trade talks. Prices on the LME trended higher in January and mid-February to $6,284.50/t, Chinese investors returned from New Year with aggressive selling. Soft economic data from the US and China triggered unease in the market. U.S. GDP has moderated as flagged in our previous report. However, growth of 2-2.5% is more sustainable than 4.2% that was achieved Q2 2018.

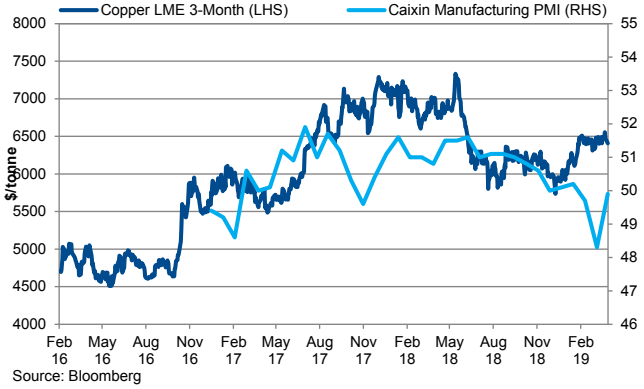
The reduction in the VAT along with considerable outflows in global inventories provided synthetic tightness to the market. This caused cash-3month spreads to tighten into $58/t backwardation as the LME on warrant stocks declined to 21,600 tonnes. In our view this material did not find its way into physical demand, this was affirmed as we saw the material flow back into the LME with on warrant inventories rising to 142,000 tonnes and further still in April. The resilience of copper during this inflow of material is notable and suggests copper will continue to trend higher. SHFE deliverable stocks have increased 120% in Q1 to 261,000 tonnes.

Chinese premiums have declined in recent months, as the Yanshan copper warehouse warrant premium trades at an average $54/t according to SMM, as of April 9th. This suggests demand in China has remained weak; however the impacts of the stimulus will still be filtering through the economy. Chinese manufacturing was contractionary for the majority of Q1 with readings at 48.3, 49.9 and 50.8 respectively. Other global PMIs were softer, exemplifying the state of the global economy however; Chinese imports of unwrought copper increased 9% m/m, to 479kt in January. Furthermore, the USD has remained strong despite uncertainty surrounding the macro economy and this has provided headwinds to $6,550/t.

Outlook: Copper prices have oscillated between $6,400/t and $6,500/t for the majority of March and April as sentiment remains on the front foot but gains remained capped by uncertainty surrounding the US-China trade war. Copper's resilience despite large inflows of material into global LME warehouse suggests gains in the longer term. Since March 13th, the global on warrant LME stocks have climbed from 31,435 tonnes to 183,000 tonnes; however prices have remained range bound. Rising stocks have been offset by stronger than expected Chinese data and investors' perception of a trade deal which has acted has a boon to copper prices.

LME 3-Month Price vs Caixin Manufacturing PMI

The contract in China's PMI does not bode well for copper.

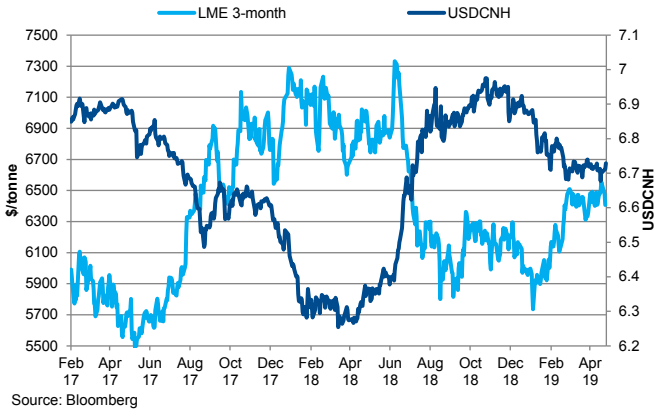


Source: Bloomberg

Chinese stimulus throughout Q1 has lifted the economy with headline growth beating expectations at 6.4% for Q1. Indeed, GDP was not the only indicator that surprised to the upside; industrial production expanded 8.5%y/y in March. The improvement in sentiment in China is exemplified by the improvement in private sector fixed-asset investment which rose 6.3%.The stimulus has provided the economy with a boost in the near term, however we urge investors to remain cautious in the longer run. Aggregate financing in China ballooned in March to 2.86trn in yuan, an increase of 80.28% y/y with total credit generated 8.20trn yuan in Q1, up 40% y/y. This could set the scene for an RRR cut in the coming months. Indeed, the tax cut from China's congress of RMB2trn was significantly larger than 2018 and includes the reduction in VAT, supporting end user demand.

LME Copper vs USDCNH

CNH strength in Q1 is a boon for the base metals complex.



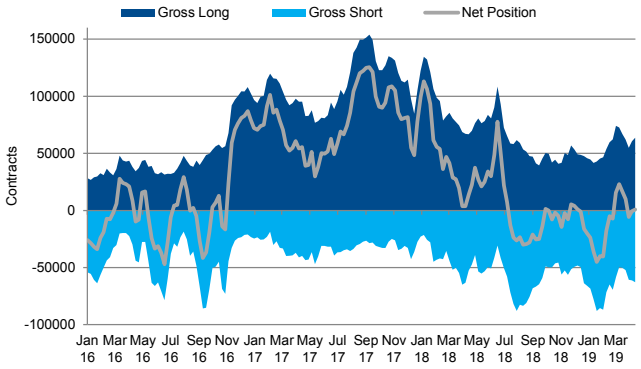
Source: Bloomberg

In our view, USDCNH has acted as a tailwind to copper prices in Q1, gaining 2.16% to 6.7232. This increases the purchasing power for Chinese organisations and consumers, but remains weak in comparison to pre-trade war highs. The exchange rate is at a key level at the time of writing with CNH needing to break 6.6800. China's improved data, in particular Caixin manufacturing PMI in conjunction with softer US data, exemplified by the US Citi Surprise Index which stands -67.80 as of April 23rd having fallen from 27.30 on February 1st. We believe the USDCNH will trend favour of CNH in Q2 acting as tailwind to not just copper prices but also base metals.

Operating rates at Chinese copper rod producers increased in March to 77.2%, we attribute the increase to the reduction in VAT which improved spot demand as downstream consumers increased purchases. We anticipate this trend to continue in April on a m/m basis. SMM indicate that demand from renewable energy firms has been strong and this should remain the case in the near term. Comparatively, low and medium voltage energy grids and automobiles have underperformed with wire consumption from these counterparties falling. SMM data suggests the ratio of raw materials to total production has fallen by 6.76% to 12.67% in March.

COMEX Manged Money Positioning COT

Investors on COMEX have become more friendly to copper.

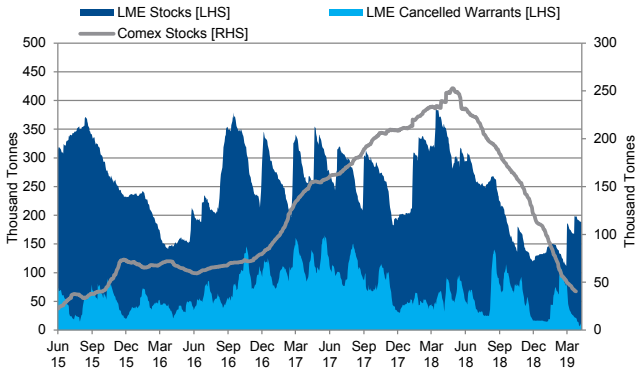


Source: Bloomberg, COMEX

Weekly TCs for imported copper concentrate with copper content of >26% have trended lower so far in 2019, falling from an average of $90/t at the end of January to $67/t as of April 23rd. In our view, concentrate tightness will start to come to fruition as maintenance work is to be carried out in Q2 before coming back online for H2 2019. Outside of China, environmental upgrades at Chuquicamata and Potrerillos have paused output at these locations with reports that Chuquicamata will come back online at the end of Q2 2019. Furthermore, the blockade at Las Bambas has been cleared with Wood Mackenzie suggesting that 150-200,000 tonnes of concentrate inventory have been built.

LME vs COMEX Inventory

Divergence in exchange stocks as cancelled warrants decline.



Source: Bloomberg,LME

Chinese imports of unwrought copper and copper products rebounded in March to 391,000 tonnes from 310,000 tonnes in February. Indeed, the Yangshan copper premium averages $50.50/t as of April 23rd. Premiums spiked higher to $60/t in March but have since resumed the trend lower suggesting softer physical demand, higher domestic production and increased imports. The spread between copper cathode and scrap has narrowed in recent weeks as weaker scrap consumption has buoyed cathode demand. Copper scrap imports fell by 52%y/y to 113,500/t according to Chinese customs, throughout Q1 Chinese scrap imports declined 37.15% y/y but 4.52% in copper terms. This follows the Ministry of Ecology and Environment (MEE) restricting of category 7 scrap at the start of 2019. Category 6 scrap will be classed as a 'restricted import good'. We anticipate the ban on copper scrap to give rise to copper cathode demand, supporting copper prices on the LME. Wood Mackenzie suggests that scrap policy will prompt a 2.2% growth in refined copper consumption in China for 2019. Accordingly, cathode stocks are anticipated to continue to drawdown even with the softer global consumption.

Lead - Lacklustre Auto Sales A Drag

Source: Bloomberg, 26.04.19

Summary

Lead prices are under pressure as investors favour the zinc/lead switch but the zinc premium has retreated from highs. This could favour lead as these positions are unwound. Auto sales across the globe act as a headwind to prices as well, March sales of petrol and diesel improved in Germany and this could support lead in Q2. We do not expect exponential gains in Q2 as global auto sales remain sluggish. We anticipate trading to remain between $1,900/t and $2,100/t with a trade deal pushing prices towards $2,150/t.

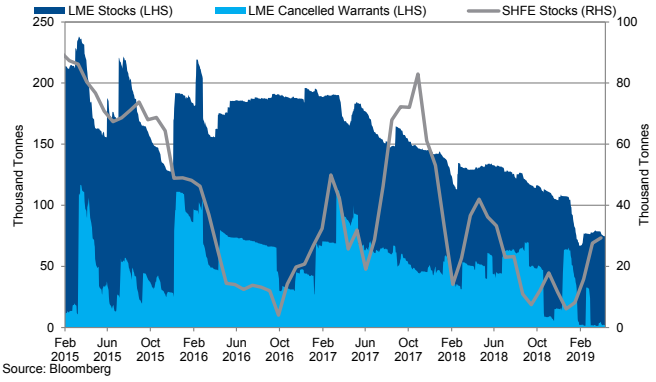
Q1 recap: Lead had mixed fortune in Q1, whereas appetite for commodities as a whole increased. The Bloomberg commodity index (BCOM) strengthened in Q1 but specifically January, gaining 5%. Accordingly, the BCOM Industrial metals index increased 7.25% in January amid improved risk appetite due to investor belief the US and China are close to an agreement for the trade deal and Chinese stimulus. There was fundamental support as well, the flooding in Australia compounded tailwinds to prices as shipments of lead concentrates were impacted. Furthermore, the fire at a large producer in Korea helped support prices.

Talks have been ongoing and the deadline was extended but we have yet to significant progress on the key issues such as Intellectual property rights. We maintain our view that agreements from China to purchase U.S. agricultural products are a smoke screen to the real issues. The U.S. exported 1.4m tons of Soybeans to China in January, we anticipate this to trend higher but is a far cry from pre-trade war levels. The increase in risk appetite from Chinese stimulus, trade negotiations and declining stocks provided the perfect storm for prices to test appetite at $2,180/t.

Softening macro-economic data across the globe triggered lead prices to retreat from its Q1 high of $2,180/t. Material flowed back into LME inventory in February as stocks increased by 14.49% between February 15th and 21st. Stocks have flat lined since and stand at 78,750 tonnes as of April 4th. The marginal increase in inventory was predominately in Europe. In conjunction with weak economic data from major economies, lead prices declined for the remainder of Q1 to close at $2,017/t.

LME vs SHFE stocks

LME stocks have continued to fall as SHFE stocks rise.



Source: Bloomberg

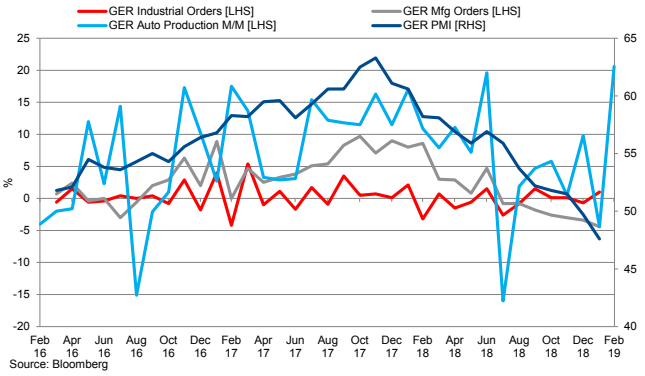
SHFE prices declined 7% in Q1 to 16,740RMB/t as SHFE deliverable stocks increased. An increase in availability in China provided downward pressure on SHFE prices. Inventories increased 134% in Q1 from 15,826 tonnes to 37,061 tonnes.

Outlook: Lead prices have been under pressure since the start of March, recent headline economic data has been soft. Furthermore, lead acid batteries provide the majority of the lead demand. Auto production figures have been down across the globe. China's February auto production figures declined 17.9% with passenger car production at 1.140m units in February 2019; this brings passenger auto production in China for the first two months to 3.135m vs 3.77m units in 2018. Uncertainty surrounding the trade war triggered citizens to hold back purchases of luxury items. China's auto industry

association indicated year on year sales growth will be flat in 2019. Accordingly, we anticipate Chinese auto production to remain under pressure in Q2, passenger sales are expected to improve on February's figure.

German Autos vs Mfg PMI vs Industrial Orders vs Mfg Orders

German economic data has softened putting pressure on the EU economy.



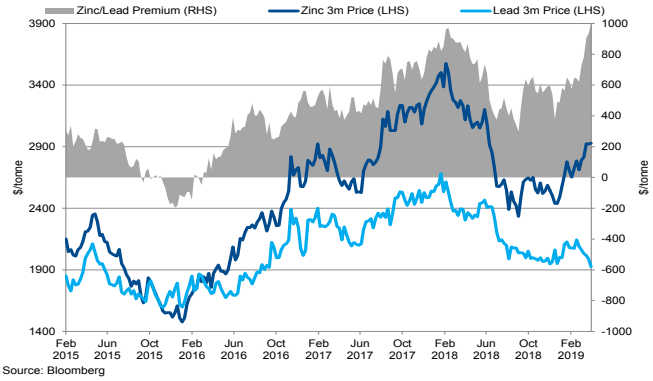
German manufacturing and manufacturing orders tumbled since the start of 2018. Indeed, manufacturing orders reached 8% growth y/y in December 2017 but as the protectionist stance from the US and China set in and the European economic growth ran out of stream, manufacturing orders started to decline with the indicator recording a year on year decline of 8.4% in February. In 2018 China accounted for 70% of the passenger vehicle's growth, car sales growth declined 6% last year. Germany's six largest auto-related firms contribute 10% of gross value added or output according to Goldman Sachs. Accordingly, China's purchases have been strong, registrations climbing 8% in January and February basis 2018. China is now 25% of BMWs vehicle deliveries.

Dark clouds that have covered the German economy are coming to fruition with the industrial sector struggling. The trade wars between the EU and U.S. have re-escalated after the EU target $11bn worth of US imports. However, Chinese stimulus has improved the outlook for the Chinese economy in the near term. Strong industrial production for March at 6.5%, beating the survey of 5.6% outlines the improvement in sentiment from China.

We believe the Zinc/Lead switch has compounded downward pressure on lead in recent weeks. However, we anticipate physical buying around $1,900/t on the LME and 16,250RMB/t on SHFE. As per the above regarding softer automotive data, we anticipate battery producers to be efficient in their purchases. With refined lead prices so low, margins are tight and this could reduce the spread between primary and secondary lead. The spreads between LME spot and 3-month rolling has continued to widen in recent weeks with cash prices firming slightly. This could indicate a switch from investors to buying on necessity rather than forward planning. Indeed, according to SMM battery purchases were softer as prices fell. SMM suggested that as of April 12th domestic lead brands were quoted premiums of 50-70RMB/t against the SHFE 1905 contract.

LME Zinc/Lead Premium

Zinc premium outlines a zinc/lead switch as zinc premium hits recent high.

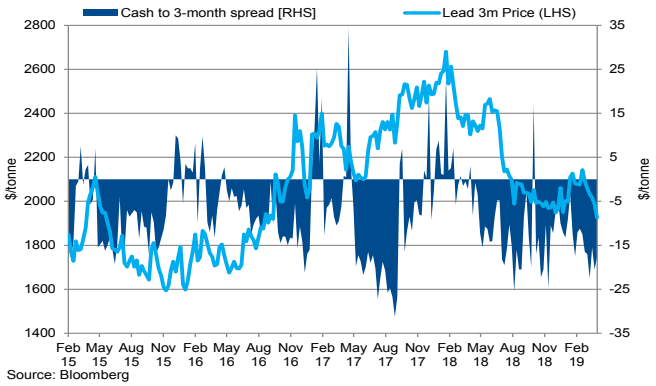


According to the LME COT figures, investment funds liquidated their long positions from March 1st to March 29th from 3,695 contracts to 2,611 contracts short. However, the uncertainty surrounding the trade war has increased apprehension amongst traders. Trading has been choppy across base metals. As of March 17th the 30 day average range was $32.50 and implied volatility was 16.37%, fractionally below 10 day realised at 18.66%. The low volatility market could present an opportunity for some investors, however the week leading up to Easter is notoriously quiet and as such investors would do well to keep this in mind.

Concentrate imports have declined following the closure of the arbitrage window, TCs for imported lead concentrate have risen to an average of $27.50/t according to SMM as of April 1st. Conversely, TCs for domestic lead concentrate have stayed flat in recent months averaging 1,850RMB/t. The increase in availability of refined metal in China is exemplified by the narrowing of the arbitrage window. Accordingly, Chinese concentrate imports have declined below the 3 month moving average. This is attributable to seasonality of Red Dog's shipments, although imports from Red Dog did decline for a 3rd consecutive year in 2018. Spot TCs for lead concentrate with low silver levels began to improve towards $35/t according to Wood Mac.

Cash-3-months spread vs 3-month price

The contango has remained intact as the 3-month price falls.



The increase in availability put downward pressure on the LME cash to 3-month spread and we anticipate this to continue in light of recent German PMI readings. Lacklustre demand in Q2 could cap gains of lead; however maintenance in April could lower operation rates after the m/m increase in March to 65.49%. We attribute this increase to CNY in February. Another tailwind to prices comes from the closure of 100 inefficient mines which have failed to meet the environmental standards in Hebei province.

Nickel - 300 Series Stainless Output Positive

Source: Bloomberg, 26.04.19

Summary

Tsingshan is key to the nickel market, and following China's anti-dumping duties on Indonesia, Japan and Europe we could see stainless production in China improve. European imports of Asian stainless steel are an increasing threat to European mills. Chinese subsidies for NEVs are prompting batteries with higher energy capacity which is bullish for nickel. Rising stainless output has put downward pressure on prices but strong 300 series profits should support nickel in the near term. We anticipate prices to trend towards $13,500/t with advances to $14,000/t sold into.

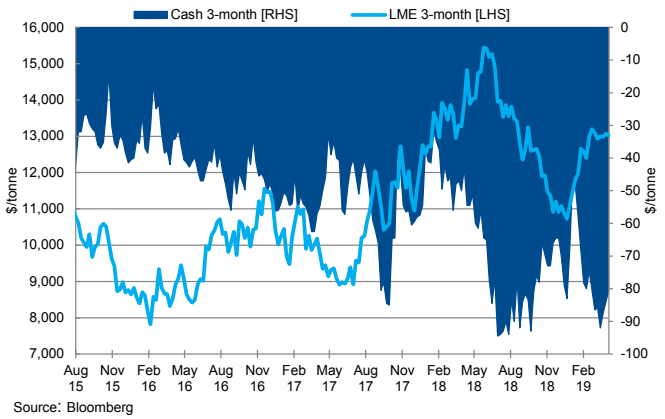
Q1 Recap: Nickel gained 21.7% in Q1, a stark contrast to the previous quarter's performance. The sustained rally in January which saw prices improve 17% as fresh longs emerged, exemplified by the commitment of traders' investment funds net position which increased to 9,544 net long. The squeeze in January subsided as Chinese investors returned from New Year and prices reaffirmed support at $12,000/t.

Investment firms stayed long as US-Sino relations looked be improving following numerous negotiation meetings. Increased risk appetite amongst traders due to trade relations and declining exchange stocks caused prices to break $13,500/t. The fundamental deficit in the nickel market has not facilitated persistent gains through $13,500/t as uncertainty surrounding trade negotiations have continued. Sentiment has improved but remains uneasy, a deal between U.S. and China containing tariffs would keep pressure on both economies. The intricacies of the trade deal are yet to be confirmed and at the time of writing uncertainty caps gains on the upside.

Chinese stimulus has buoyed nickel demand but Chinese exports of hot rolled coil (HRC) are falling but imports into China from Indonesia remain high. Global demand is constructive, exemplified by the steady decline in exchange inventories to 182,574 tonnes. Risks persist for the global economy and this could provide headwinds to consumption in the long run. The cash – 3 month spread of $84.50/t contango as of April 11th exemplifies the declining stocks. SHFE prices gained 14.2% in Q1 to 100,160RMB/t after failing above 105,000RMB/t. The outflow of SHFE inventories has been comparatively less due to the low amount of stock. Accordingly, inventories declined 28.4% to 10,922 tonnes.

LME 3-month vs Cash to 3-month

The cash 3-month contango widened once again as prices fall towards 12,200/t



Source: Bloomberg

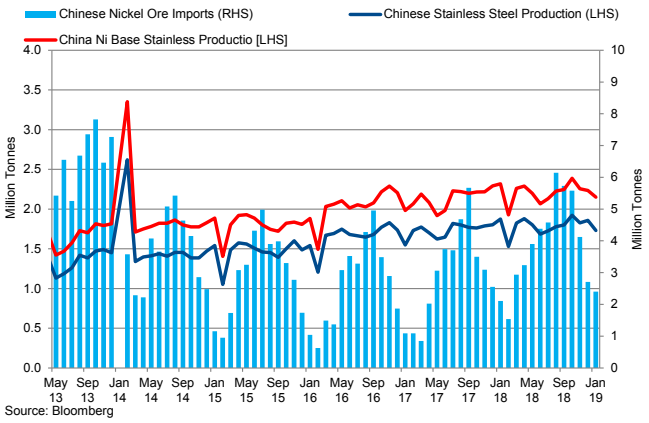
Outlook: Chinese stimulus throughout Q1 has lifted the economy with headline growth beating expectations at 6.4% for Q1. Indeed, GDP was not the only indicator that surprised to the upside, industrial production expanded 8.5%y/y in March. The boon for nickel is the improvement in Chinese fixed asset investment which we expect will support for stainless steel demand for transport, real estate and domestic goods which can be incorporated in retail sales. The improvement in sentiment in China is exemplified by the rise in private sector fixed-asset investment which rose 6.4%.

The stimulus has provided the economy with a boost in the near

term, however we urge investors to remain cautious in the longer run. Aggregate financing in China ballooned in March to 2.86trn in yuan an increase of 80.28% y/y with total credit generated 8.20trn yuan in Q1, up 40% y/y. This could set the scene for an RRR cut in the coming months. We anticipate the debt to be allocated to local infrastructure, therefore this should support stainless demand in the near term. Accordingly, Wood Mackenzie have forecast 4% growth for stainless melt production in 2019, attributing the increase to new capacity such as Mintal in 2019 and Shandong Xihai in 2020.

Chinese Nickel Ore vs Stainless Productions & Ni Based Stainless

Chinese stainless production declined into CNY but output increased in March.



Source: Bloomberg

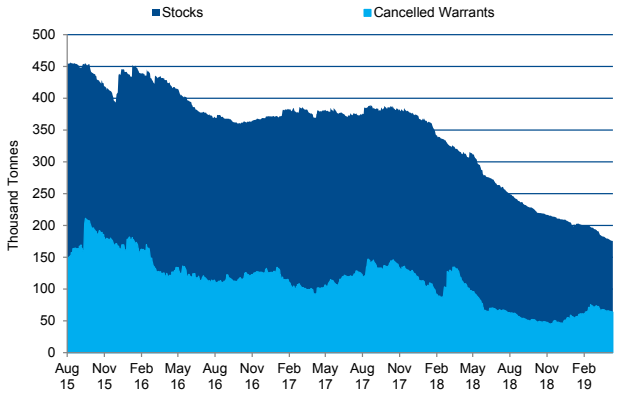
The stimulus package triggered a response from the supply side, stainless steel output surged 19.5%m/m in March to 2.43m tonnes a y/y increase of 11.39%. The higher number of working days in March vs February partially explain the m/m rise. Production of 300 series nickel which has the higher nickel content increased 28.65% m/m in March to 1.23m tonnes. According to SMM, the large increase in series 300 output was due to stronger profit margins. We expect some seasonal maintenance projects to cap spot nickel demand in the near term with stainless output set to fall marginally to 2.33m tonnes. However, 300 series product output may total 1.24m tonnes a m/m rise of 0.45%. The strong stainless-steel output has provided strong headwinds to 2mm thick 304/2b stainless with the price falling from 15,500RMB/t at the beginning of April to an average of 14,450RMB/t as of April 19th.

Shanghai bonded nickel stocks improved by 4% to reach 25,900mt according to SMM indicating that the opening of the arbitrage window has triggered an inflow of material. Conversely, they suggest nickel ore inventories declined in the same week to 11.95m wmt, a fall of 230,000 wmt from the week before. Weather issues in the Philippines have capped shipments, however this rainfall has subsided, and shipments are scheduled to reach 2m wmt of nickel ore in April, the majority of this material destined for China. The lack of shipments from Philippines in Q1 has been offset by Tsingshan's propensity to produce NPI. At this time, they have four more production lines under construction which is a JV with Nickel Mines Ltd in addition to 12 lines with Zhenshi & Eramet. Tang Shan pig iron increased since the start of April to average 2,930RMB/t, however prices remain soft in comparison to the pig iron price following CNY which averaged 3,050RMB/t. Alternatively, and NPI (8-12%) has declined since the start of March from around 1,060RMB/mtu to 997.50RMB/mtu as of April 15th.

Anti-dumping legislation against Indonesia has been confirmed and this may give rise to Chinese output. Chinese authorities have imposed duties on stainless semi imports from Europe, Japan, South Korea and Indonesia. Our view remains that the target of such duties is Indonesia, however improving strength of emerging Asian economies may be able to absorb some stainless as they benefit from increased greenfield investment from the Asian Development Bank (ADP). Chinese firms increase investment into other Asian countries increased by 198% to $54.9bn in 2018. Total outward investment from China into 'the rest of developing Asia' reached 60% in 2018. We attribute the increase in local investment to the trade war and Chinese firms protecting themselves from further tariffs from America. The confirmation of the anti-dumping duties could put downward pressure on European stainless prices as EU firms increase purchases of cheaper Asian material. Accordingly, Tsingshan exported 75-80,000 tonnes of HRC and CRC productions to Italy in 2018. Furthermore, shipments have trended higher so far in 2019 and with further stainless lines in construction, exports to Italy and Europe may increase further.

LME Stocks

Withdrawals from LME warehouses continue at a steady clip.



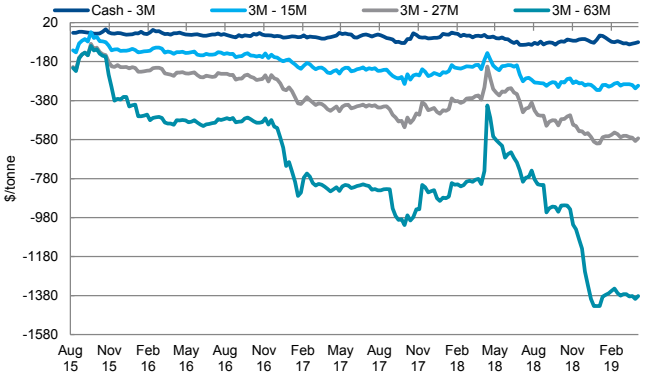
Source: Bloomberg

EVs continue to provide headwinds to nickel prices with nickel bulls understandably sensitive to production and sales figures. However, as expected China's subsidies for NEVs has been reduced with contributions by 35% from 2018. Authorities increased the threshold of eligibility for subsidies. Local level subsidies for passenger EVs have been cancelled with funds being allocated to charging and hydrogen re-fuelling stations. EVs with ranges below 250km are no longer supported by authorities but the e-buses and fuel cell vehicles remain supported. The subsidies target batteries with a higher watt/kg with the minimum threshold 125mw/kg up from 105kw/kg.

We do not expect a slowdown in EV sales at this time and we believe consumption with breach 1.5m units in 2019. The HPAL projects will aim to supply future battery in the long run however, there are significant waste implications of battery chemical production. According to Wood Mac, slurry waste from the leaching operation in HPAL produces around 1.4m tonnes of waste for every tonne of ore.

Nickel Calendar Spreads

Calendar spreads have all widened in recent weeks as the flat prices sells off.



Source: Bloomberg

Tin - Soft Semiconductor Sales

Source: Bloomberg, 26.04.19

Summary

Tin prices continue to be supported by low inventories. However, SHFE inventories have remained constant. Investment funds maintained their long position up to April 12th; we expect this to have fallen since. The backwardation suggests the market is tight but we anticipate stocks to be held off warrant. The bullish case remains a long term trend but semiconductor figures are softening and prices have tumbled. We expect prices to be supported towards $19,000/t with the top end of our range at 21,000/t. Persistent trade tensions and poor semiconductor sales may trigger a break towards $18,000/t which would bring into question the long term bull trend.

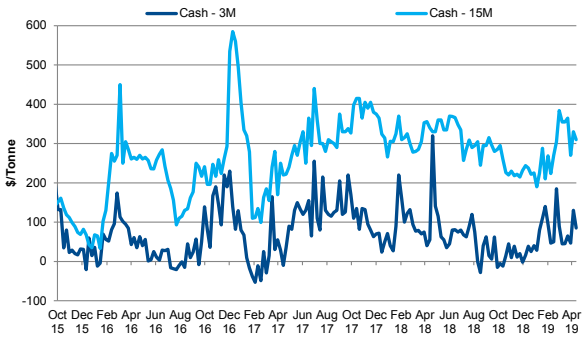
Q1 Recap: Tin prices strengthened in Q1, in keeping with our previous report's outlook. Tin priced on the LME broke through our upper range of $21,500/t to reach a quarterly high around $21,800/t. Prices retreated but were well supported at $21,000/t and Q1 closed at $21,400/t up 9.71% above key support.

Open interest for tin is considerably below the other base metals at but the cash-3month spread is in heavy backwardation at $140/t as of April 4th. With tariffs on semiconductors, tin should not be ignored when it comes to the trade war. Indeed, with stocks low and the market in heavy backwardation, it could be a lot more sensitive to further trade news and negotiations.

Tin, like other metals has faced considerable headwinds from the US dollar. The Citi Surprise Index has weakened considerably from the January high of +27.30 to -55.20 as of April 4th. This suggests US data has started to disappoint, however the pause in the U.S. interest rates has stabilised the economy and we expect growth to range between 2-2.5% in Q1 which is more sustainable rate. The strength of the greenback can in part be attributed to the U.S. yield curve and the spread between U.S. and other major economy interest rates. We anticipate investors still see the U.S. as an attractive destination for capital.

Calendar Spreads

Spreads show tightness in the market with strong backwardations.



Source: Bloomberg

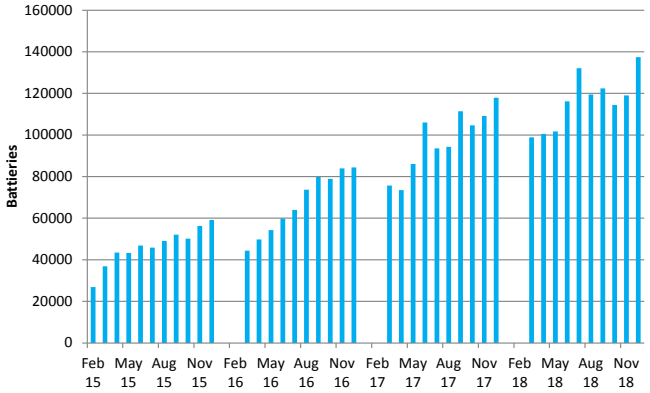
The steep backwardation in tin can illustrated by the decline in LME inventories, outflows in Q1 caused global LME stocks to fall 54% to 1,000 tonnes. Supply side constraints indicated that the tin market will remain tight going forward, especially with the so-called technology super cycle mentioned in our Q1 report.

Outlook: Electric vehicles have transformed the base metals market, the new industry has prompted much analysis and excitement, and this has predominately been centered on nickel and copper. The International Tin Association (ITA) outlines tin's role in the electric revolution. It is used in lithium-ion batteries and given the already tight fundamental outlook; tin producers could be set to gain. The heavily backwardated market at $90/t affirms the fundamental tightness but with the omnipresent double threat of the technology super-cycle and electric vehicles only tighten the market. The ITA

suggests an increase in tin usage of 60,000 tonnes by 2030; this is a notable amount considering total global demand is about 360,000 tonnes. In the immediate term, the ITA suggest that tin consumption will fall by 1% in 2019 to 357,000 tonnes indicating that the market may see a moderate surplus.

Lithium Ion Battery Production China

Production of lithium-ion batteries in China has trended higher.

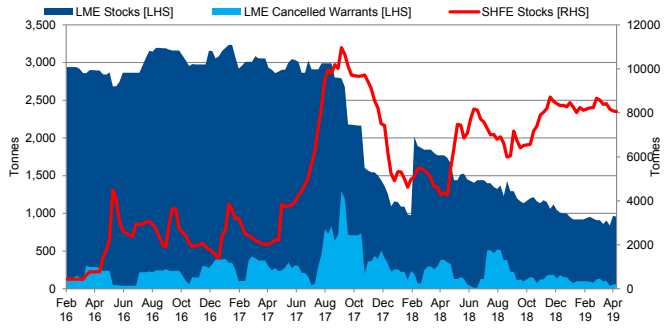


Source: Bloomberg

The LME tin market is plagued by illiquidity and low stocks. We believe the EV market story will not develop for a few years; the pace of an electric vehicle adoption is only going to increase. SHFE stocks are comparably higher at 7,813 tonnes compared to LME stocks at 955 tonnes. Indeed, the majority of this material is in Asian warehouses with only 10 tonnes in Europe. While LME stocks are perilously low, SHFE deliverable stocks alleviates some of the tightness in the market. Furthermore, there is a strong case for refined metal to go straight to the industry from the smelter, cutting out the exchange warehouse or the material is stored at close to an LME warehouse and then is warranted when purchased. The heavy backwardation has struggled to attract metal onto the exchange and this has put pressure on the LME warehousing system.

LME vs SHFE stocks

LME stocks continue to decline and are below 1,000 tonnes.

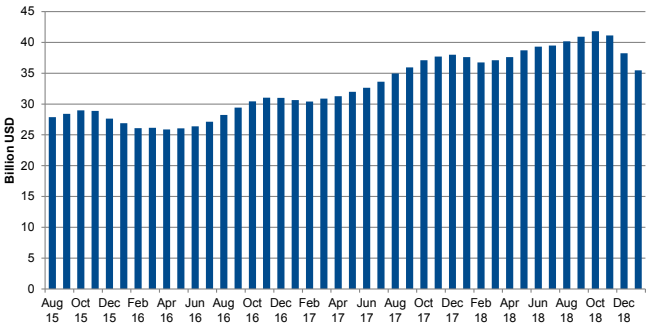


Source: Bloomberg

Exports of refined tin from China surged to a decade high in January as the arbitrage window was open. However, the tin supply constraints are becoming more prevalent. Myanmar was rich tin ore and concentrate; however supply has declined in recent years. Chinese imports of tin concentrate fell 25% in 2018. Chinese smelters may have to amend their sourcing; Indonesia is on possible destination as they exported 76,760 tonnes in 2018. Indonesian exports imports totalled 5,572 tonnes in February bringing total shipments for the first two months of 2019 to 9,687 tonnes down 17% on the same period last year.

Global Semiconductor Sales

Semiconductor sales continue to trend higher despite tariffs.



Source: Bloomberg

Semiconductor sales have fallen significantly in 2019, after peaking at $41.81bn in October 2018. February sales according to the Semiconductor Industry Association (SIA) fell to $32.86bn a decline from January's figure of $35.47bn. Three month average sales declined 20.1% from December to February with the Americas declining the most at 33.6%. US semiconductor firms have asked for support from the US government to prevent China from getting ahead; firms want the government to triple spending to $5bn by 2024. Furthermore, firms want $40b of research spending for semiconductor related sectors. Sales have been down across all major regional markets, as demand for memory chips has waned. Original demand was strong as large technology firms' transitioned business to the cloud but these companies are now drawing down on the large inventory they already have. Intriguingly US firms have asked to keep trade with China open as they are one of the US's best customers, importing $200bn worth of semiconductors annually. The protectionist stance is providing a challenging environment for chipmakers as 80% of their revenue comes from abroad.

Zinc - Home Appliance Demand Improving

Source: Bloomberg, 29.04.19

Summary

Chinese concentrate imports remain thin as domestic material is available. We maintain our constructive view on the zinc as white goods demand has started to grow once again. We are expecting refined production to start coming back online in H2 which may soften prices towards the end of Q2. TCs have started to respond at higher concentrate levels, utilisation rates remain high and we expect refined material to flow back to the market. We expect the majority of trading to take place in a $2,700/t to $3,000/t range.

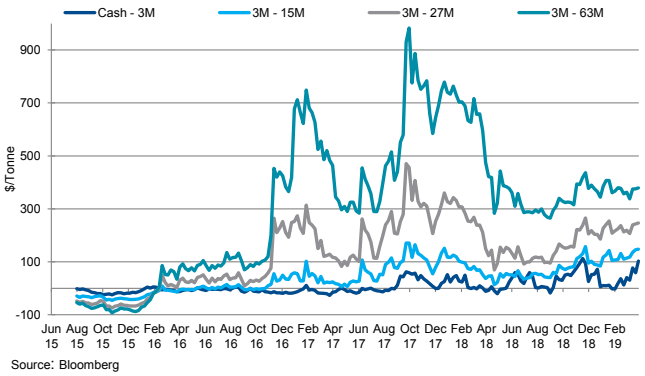
Q1 Recap: Zinc trended higher in Q1, in line with the metal's fundamental outlook. Resistance at $2,800/t held and the market corrected on the downside. Chinese investors returned from their New Year's holiday and zinc rebounded of $2,600/t, spot demand returned with Chinese investors. Increased risk appetite on the LME was exemplified by the LME commitment of traders' grand total net contracts increasing to net long of 59,026.56 contracts.

Progressive trade talks between the U.S. and China added tailwinds to zinc prices throughout Q1. We maintain our view that agreements from China to purchase U.S. agricultural products are a smoke screen to the real issues. The U.S. exported 1.4m tons of Soybeans to China in January, we anticipate this to trend higher but is a far cry from pre-trade war levels. The increase in risk appetite from Chinese stimulus, trade negotiations and declining stocks provided the perfect storm for prices to test appetite at $2,940/t.

Fundamental support was provided by flooding in Australia that damaged a railway in Queensland which delivers zinc concentrate to Townsville. Operations halted on February 7th and operations were expected to be halted until the end of April/middle of May. In addition to flooding, investors remained anxious about Nystar. Nystar's fate is still in the balance; however they look likely to miss a $20m debt repayment.

Zinc Calendar Spreads

Longer dated spreads remain in backwardation suggestion tightness.



Source: Bloomberg

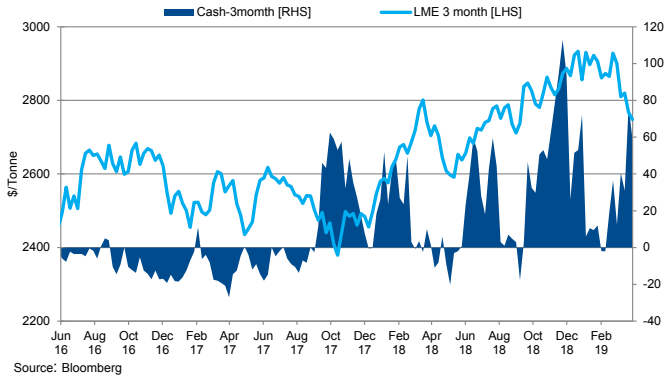
Cash to 3-month spreads flared out to $76.75/t backwardation at the end of the quarter. There remains a shortage of refined metal as the smelters are bottlenecked. Exchange inventories have continued to decline towards 50,000 tonnes. Inventory fell by 59% with the majority of in New Orleans in the U.S.SHFE deliverable stocks have surged in Q1, up 446% to 109,804 tonnes. Prices on the SHFE gained 9% to 22,570RMB/t on the 2nd month contract.

Outlook: According to the World Bureau of Metal Statistics (WBMS), the market recorded a deficit of 36.8kt throughout January and February; this is consistent with price performance and stock movement. Indeed, zinc priced on the LME has acted in accordance with market fundamentals so far in 2019. Chinese concentrate

imports reached 289,000 tonnes in February vs 301,000 tonnes in January. However, zinc concentrate stocks have trended lower in 2019. The weekly indicators from the SMM suggest that Lianyungang port inventories have fallen 26% so far in 2019 to 110,000 tonnes.

LME 3-month cash vs LME 3 month

Cash-3-month spread spiked into a $100/t back as the markert remains tight.



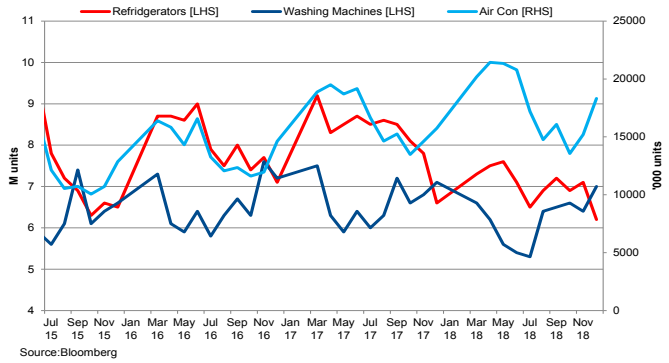
Source: Bloomberg

Chinese refined zinc production rebounded strongly to 448,000 tonnes in March, from 420,000 tonnes in February due to higher TCs. The recovery of operating rates following CNY help to explain the increase in production, however SMM indicate that y/y output for refined zinc in China declined 2.4% in 2018 to 5.3m tonnes. This is attributed to the environmental inspections in key production regions triggered smelters to reduce capacity. Falling demand for domestic zinc concentrate and increased availability has increased TCs to an average of 6,350RMB/t. However, profitability is stronger for zinc TCs for imported zinc concentrate have increased in recent months and averaged $240/dmt as of April 1st.

We maintain our view that availability of concentrate remains plentiful, however bottlenecks at smelters are keeping the refined market tight. Extrapolating the recent inflow of 7,225 tons of material into LME warehouses, we anticipate global stocks of refined zinc to drawdown in the coming quarter due to the smelter bottlenecks. Metal stocks days of consumption (DOC) have been falling in recent years and we expect this to continue in Q2 2019 as DOC fall towards 30. The refined tightness should give rise to prices on the LME as stocks continue to trend lower. Affirming the outlook for a tight refined market is the smelter production capability reduction. According to Wood Mackenzie, global smelter capability will decline in 2019 to 125,000 tonnes due to environmental restrictions.

White Good Sales in China

White good sales have started to improve in China.

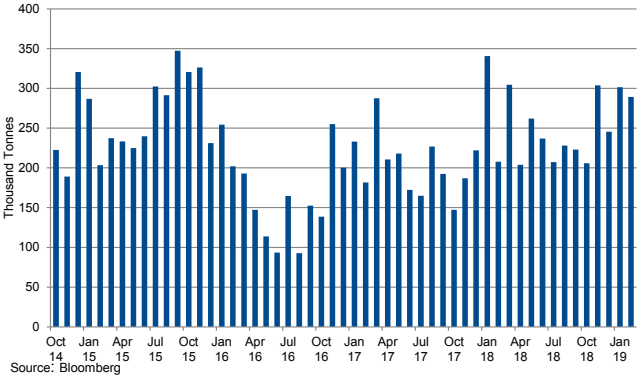


Source:Bloomberg

From a consumption perspective, demand forecasts are softer basis the global economic outlook. However, downstream purchases due to restocking caused the spot premiums for #0 zinc in Shanghai to increase to 80-100RMB/t above 1904 contract. Operating rates at zinc die-casting alloy producers rebounded in March following stronger demand from various downstream sectors. Furthermore, galvanising rates surprised to the upside due to high steel prices boosting profits. The rise in steel prices can be attributed to the Vale disaster reducing iron ore output, giving rise to iron ore prices and in turn steel products.

Chinese Zinc Ore Imports

Chinese Zinc ore imports remain elevated.



Source: Bloomberg

Iron Ore & Steel - Steel Demand Peaking

Source: Bloomberg, 26.04.19

Summary

Falling iron ore port stocks due to the Vale disaster will provide support for iron ore. We anticipate the Chinese steel market to grow in 2019, but at a slower rate, as steel profit margins softened, which is a worry for steelmakers. We anticipate the rise in iron ore costs to support steel prices in Q2 and continue to favour higher quality iron ore fines and pellets. The re-opening of the Brucutu mine could help alleviate some of the supply shortage. We anticipate trading to remain in a $75/t-$90/t range with softer Chinese demand pushing prices towards $70/t.

Q1 Recap: Consistent with our previous report, SGX 62% Fe Asiaclear 1st generic traded between $75-90/t. The ferrous metal gained 20.3% in Q1 following the Vale disaster in Brazil. Prices posted a high of $96.95/t but investors rejected prices at this level. Stimulus from the Chinese government provided tailwinds to iron ore prices as market participants anticipated improved infrastructure investment. Iron ore on the Dalian exchange gained 23% in Q1 to 576.5RMB/t, with an average price of 547.4RMB/t.

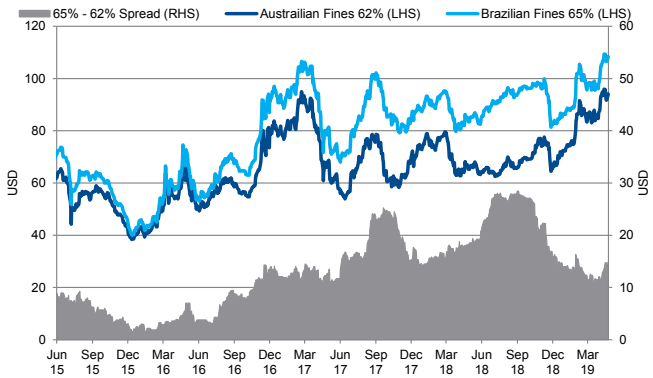
The Vale disaster has dominated the iron ore headlines over the last quarter. Following the Córrego do Feijão dam failure, the company announced its plans to curtail output at various facilities. The result of the stoppages is expected to reach 40mtpa of Vale's output. The company estimated that as result of the suspensions, Vale would sell 75m tonnes less iron ore this year. Prosecutors are planning on filing criminal charges against the miner. This comes after Vale opened negotiations with prosecutors and families over the dam failure.

Steel prices have risen significantly in recent months; SHFE steel Rebar prices increased 8.3% to 3,432RMB/t in Q1 alone. We attribute the gains to the increase in costs of inputs, iron ore, and this could keep steel prices firm in the long run. Indeed, the Chinese stimulus package has supported steel prices as well so far in 2019 and we anticipate this to remain the case for the remainder of the year. Similarly, SHFE HRC prices gained 7.6% in Q1 to reach 3,414RMB/t. Prices did reach a peak on March 3rd at 3,583RMB/t.

Outlook: Brazilian iron ore shipments have weakened significantly since the start of 2019. Average shipments for the first 4 months of the year totalled 22.94m tonnes of iron ore vs 27.52m tonnes in 2018. Accordingly, the April shipments are expected to be 7.48m, tonnes this is attributed to the Vale disaster and curtailment of capacity. Australian products represented 48.56m tonnes of the 83.08m tonnes of imports in February. The weakness in the Brazilian Real provided Vale higher local prices for their material while improving the purchasing power of foreign investors. Indeed, appetite from Chinese steel producers for higher quality fines presented Vale with strong demand at an elevated local price. The BRLCNH exchange rate has strengthened in recent months to 1.70 after hitting a high for the year around 1.85.

Australian 62% Fe CFR N.China vs Brazilian 65% Fe CFR N.China

The spread has widened slightly since Vale disaster but remains tighter vs 2018.



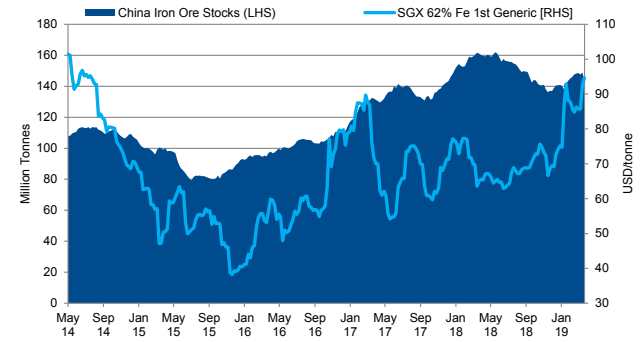
Source: Bloomberg

High grade iron ore is anticipated to provide higher returns as the premium between 62% Fe and 65% Fe has increased once again to $14.3/t as of April 23rd. This is considerably less than last year's levels but the Vale disaster has triggered prices of high and low grade iron ore to increase significantly. Iron ore 65% Fe CFR

Qingdao has increased to $109/t as of April 23rd, the rise in iron ore prices has reduced the profitability of steel mills in China to around 200RMB/t, considerably loqwe 1,000RMB/t which was reported last year. The reduction in profits has caused some steelmakers to warn shareholders of a 60-80% drop in y/y profits, Angang Group predicted a decline in net profit for Q1 of 78% to $62.2, according to Mysteel. China's iron ore imports fell in March to 55.3m tonnes down from 63.5m in February. Indeed, the final week of March saw imports reach 8.18m tonnes.

Steelhome China vs SGX 62% Fe Price

Port stocks increased in Q1 but have since started to decline since the Vale disaster.



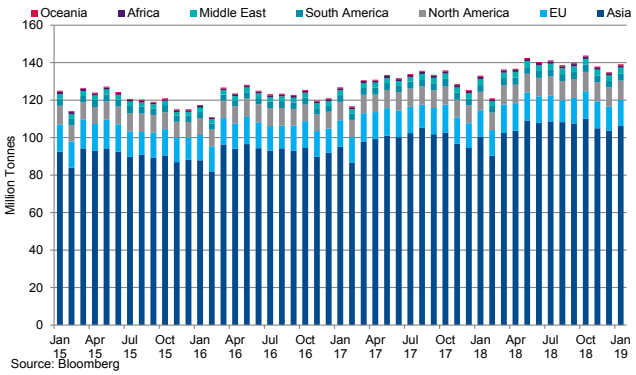
Source: Bloomberg

Surprisingly, Steelhome stocks in China have increased in Q1 despite the curtailment of Vale production, and reduced shipments from Australia, due to a cyclone to 147.60m tonnes at the end of March. However, inventories have declined sharply in April to 140m tonnes; one explanation for this is the increase in steel production in regions that curbed output during the winter months. Steelmakers in Northern provinces of China such as Hebei and Shanxi have brought capacity online at an impressive clip, some producers in Shanxi back at full capacity. SMM indicate that iron ore arrivals at Chinese ports increased between the 15th and 22nd of April.

The reduction in seaborne supply pushing iron ore prices higher could trigger a response from Chinese producers. Chinese material is high costs and low in quality, however after years of trying to cut phase out high cost production, we may see a response from these producers to help fill the capacity gap generated by Vale. Indeed, the cost curve has shifted to the left increasing the breakeven price to a range of $70-85/t according to Wood Mackenzie. We expect Chinese port stocks to continue to fall for the remainder of 2019.

Crude Steel Output

Output has remained elevated despite winder curbs.



Source: Bloomberg

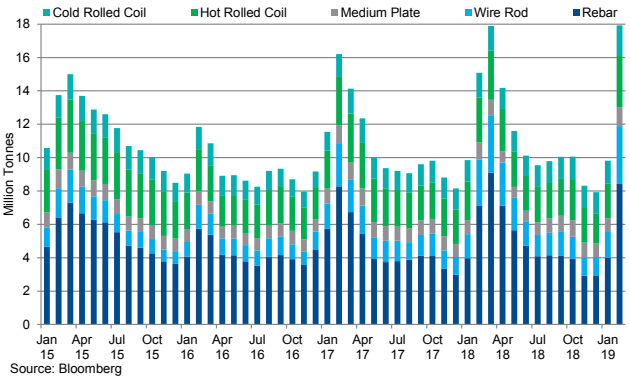
Chinese crude steel output has surged higher by 10% m/m in March to 80.32m tonnes. Production was weaker in the first two months of the year due to winter capacity restrictions in China. Crude steel output reached 230m tonnes in Q1 2019 vs 210m tonnes in 2018.

Weekly utilisation rates were improved to 69.48% in the week up to April 12th, according to Mysteel. In our view, steel production will continue to trend higher in the near term as capacity comes back online and the government's stimulus package filters into the economy.

The stimulus has provided the economy with a boost in the near term, however we urge investors to remain cautious in the longer run. Aggregate financing in China ballooned in March to 2.86trn in yuan, an increase of 80.28% y/y with total credit generated 8.20trn yuan in Q1, up 40% y/y. This could set the scene for an RRR cut in the coming months. Indeed, the tax cut from China's congress of RMB2trn was significantly larger than 2018. Increased credit availability in conjunction with adjusted property regulations could support the property industry, which according to Mysteel, is the country's largest consumer of steel products. The new regulations allow local authorities to dictate policy for that city. One City, One Policy is an attempt by Beijing to help the property sector grow healthily. We believe Chinese steel demand will remain strong this year but the market is approaching its peak. However, the reliance of stimulus packages to support the economy could boost demand in the future.

Finished Steel Inventories

Seasonal restocking, with February inventories reaching 18m tonnes.



Source: Bloomberg

Gold - Central Bank Buying Continues

Source: Bloomberg, 26.04.19

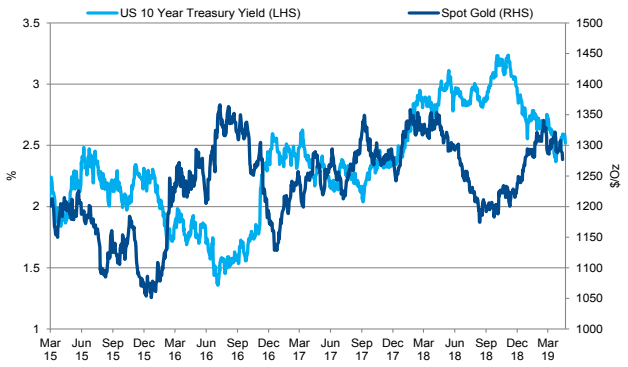
Summary

Mixed global data saw gold's price whipsaw in Q1 2019. The end of tightening programmes in major economies suggests a further gold rally. However, newly implemented fiscal stimuli and quantitative easing programs counter stronger appetite for bullion in the short term. Central bank purchases grow at record rates as the process of diversification away from dollar becomes more prevalent in European countries. The gold market faces headwinds in the immediate term as the US economies stabilise at lower growth levels, global stock indices remain high outlining risk appetite, a reversion of this trend would increase haven demand.

Q1 Recap: Gold has been range-bound in Q1, rallying 9% to $1,346/oz. since the market sell-off in December and immediately losing those gains amid dollar rally and greater risk appetite, yielding 1.75% return Q/Q. Global macroeconomic data has been sending mixed signals: dollar strength, the possibility of a trade deal between the US and China, yield curve inversion and emerging market political turmoil. With a dovish outlook, demand for safe-haven assets is expected to grow, putting more upward pressure on gold in the long-term.

US 10-year Treasury Yield vs Spot Gold

The decline of 10-year yields has prompted more gains from gold.

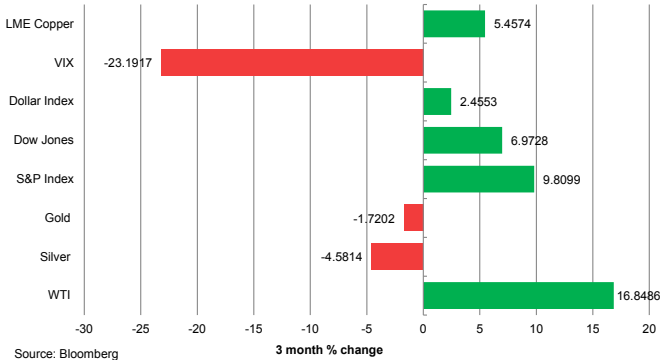


Source: Bloomberg

Major economy interest rates remain at historically low levels, which is supportive of stock markets and traditionally bearish bullion. In H1, however, we believe that the effects of global economic stimuli and quantitative easing keep gold at moderate growth. The US current account deficit was -$134.4bn in Q4 2018, a new record. Traditional assets are exhausted after an extensive March bull run. Moreover, China's recovering market is likely to contribute to global growth performance. In such an environment, gold's qualities as a safe-haven investment have become less apparent. Additionally, a slowdown of the greenback in Q2 will add to gold prices. However, US-Sino trade resolution prevails to be a major headwind for gold.

Macro 3 month price changes

Appetite for risker assets has prompted precious metals to struggle.



Source: Bloomberg

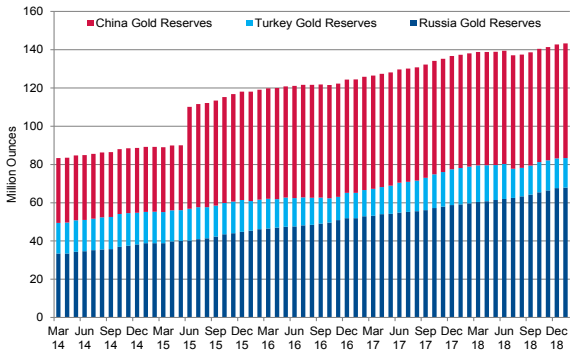
Outlook: World Gold Council data shows that gold demand reached 4,345.1t in 2018, a steady 4.5% increase since 2017, with central bank buying driving growth of the precious metal. Gold faced significant headwinds for most of 2018. Central banks, one of

the world's largest bullion buyers, have purchased more than 90 tonnes of total net gold so far in 2019. This is the highest level of growth since 2008, according to the World Gold Council. There is a continued trend of central bank purchasing gold as a measure of de-dollarisation and/or diversification: Poland and Hungary have made sizeable purchases, whereas Russia, Turkey and Kazakhstan have kept their leading positions. The desire to stay away from the volatile dollar has created central banks' demand for gold, especially in recent years under Mr Trump's presidency.

China, the world's top gold consumer and producer, has supported the economy in Q1 which has had the desired effect. The economy has been adding gold at a steady pace since the end of 2018 and shows no signs of abating after adding to its reserves in Q1. Inflows since December have increased to 42.9t, with reserves reaching 60.62m ounces in March. Precious metal has seen higher demand not just from the central bank, but from consumers as well. With China's recent Lunar New Year celebrations, the demand for jewellery is known to be higher than any other time of the year. According to Metal Focus, despite the trade relations, large replenishment orders followed ahead of the holidays and allowed the firm to forecast a 3% rise in jewellery demand this year.

Central Bank Gold Reserves

China added to their gold reserves for the first time since October 2016



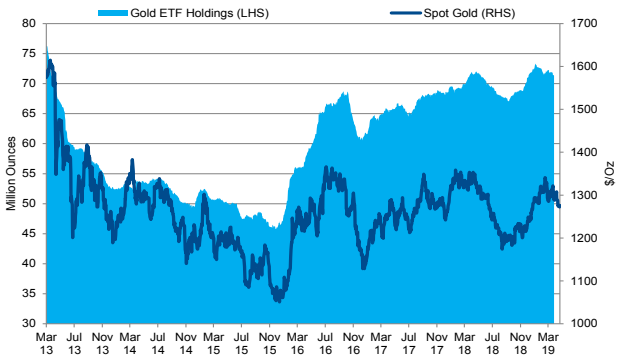
Source: Bloomberg

Russia has, however, quadrupled its gold reserves over the decade and central bank holdings rose by 1 million ounces in February, the most since November. Nationwide, Vladimir Putin's political agenda has always revolved around US-Russia rivalry, and continued diversification away from American assets indicates his willingness to stand against economic sanctions. According to the World Gold Council, Russian central bank bought 274t last year and mined 264t, outpacing its production. At the time of writing, Russian forex reserves account for 22% of the greenback currency (from 46% in 2017) and 19% of gold, the highest level since 2000.

India, as the second largest gold consumer, has been faced with an array of criticism from inconsistent regulations to credit limitations for halting India's enormous fintech potential. As new fintech start-ups have brought in liquidity into the market, apps such as PayTM Gold, Phone PE and Safe Gold continue to gain traction from investors. According to Statista there were 340m of smartphone users in India in 2018 with Cisco predicting 60% of the population owning a smartphone by 2022 bringing total users to 829m; this figure projected to rise gold's volatility as a precious metal is set to pick up in long-term.

Gold ETF Holdings vs Spot Price

ETF holdings remain elevated despite the moderate downturn in gold.



Source: Bloomberg

Global physical gold ETFs saw net inflows to be moderate moving from 71.06m by the end of 2018 to 71.89m in March 2019, as mixed global macroeconomic signals send gold price seesawing in Q1. At the time of writing, CPI figures stand at 1.5%, 1.5% and 1.6% for China, US and EU respectively. Lower inflation figures keep investors on edge, as the data remains at bay for no monetary policy changes this quarter. At the time of writing, gold's bullish sentiment reached 75 (24.04.19), up from 35.29, in line with IMF projected lower global growth figures. CFTC CMX Net non-commercial combined position stands at 55,716 net long, down from 171,000 net long in February.

Weaker Chinese performance has added to another good year in bar and coin demand, with demand steady at 304.2t in 2018. Demand peaked in Q3 when in August the price fell to RMB262/g, its lowest level since 2016. Over the course of the year, yuan fell 5.80% against the dollar while the trend has partially reversed in 2019, with 2.63% gains in Q1 and found resistance at 0.150. India, however, saw annual demand for gold fall 4% to 106.2t in 2018, despite the annual demand boost from Diwali. Domestic currency weakness and growing strength of Indian stock markets have put downward pressure on bar and coin purchases

.

Silver - China PV Installations Soften Demand

Source: Bloomberg, 26.04.19

Summary

Increased risk appetite due to the pause in monetary policy tightening has shifted the focus towards equities. ETF holdings have failed to increase despite the selloff in spot silver, suggesting speculators do not believe in a rally at this time. Industrial demand has softened so far this year but remains bullish silver in the long run. Key support stands at $14.85/oz before $14.50/oz and near term resistance is $15.25/oz.

Q1 Recap: Performance of silver in Q1 was mixed as prices were well supported originally, supported by fears of an economic slowdown in China, the U.S. Government shutdown and companies releasing profit warnings . Spot silver prices gained 4.65% to $16.21/oz as speculators increased their net position to 48,706 contracts. However, these fears subsided and the USD continued to remain strong, causing silver prices to capitulate taking out key technical levels. The COMEX managed money net position was reduced to 12,261 contacts at the end of Q1. Accordingly, spot silver prices closed down 2.43% for the quarter.

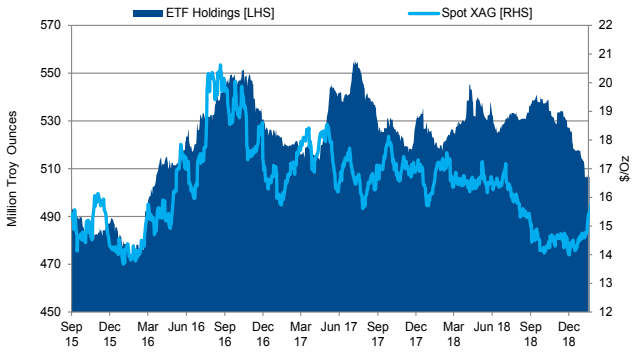
The ECB and Fed have increased their accommodative stance in Q1; however dollar strength remained a headwind to silver prices. Global growth fears are prevalent especially after IMF downgraded their global economic growth forecast once again. The IMF reduced its estimate of global growth to 3.3% in 2019, a 0.2% cut from their January forecast. IMF Managing Directors Christine Lagarde has repeatedly warned against harmful protectionist policies and the recent downgrade of their global economic growth forecast is another indication of just that.

Outlook: At the beginning of 2019, the Fed guidance strongly implied a dovish down from 2.25-2.50% rates, following months of criticism from the President for raising the rates too quickly. The slowdown of hikes was expected as US economic outlook deteriorated; however, the market has reacted positively with DXY gaining 2.62% (10/01/19 – 01/04/19), and S&P 500 edging 12.34% in the same period. Volatility metrics have declined from December sell-off highs of 36.07 to 13.71 by the end of Q1, and are yet to confirm the March equity rally. The greenback's resilience has been impressive so far in 2019, despite weakening slightly against some EM currencies. The selloff in bonds has increased available capital for other asset classes.

Weaker data from the US has been exemplified by the US Citi Surprise Index which has weakened from 27.30 to -67.80 between January 2nd and April 23rd. The premise that the strong dollar has acted as a headwind to silver prices bares little weight as our analysis suggests a negative correlation of -0.269 for 2019 so far, as of April 23rd. This weak negative correlation indicates other forces are at play. Indeed, running the model back to January 2017, the correlation between the DXY Index and silver is still soft at -0.363. The traditional inverse relationship is not as strong at this time. The key indicator for silver is gold; the two assets have a correlation of 0.788 which is a strong positive linear relationship. Despite economic uncertainty in Europe, the US has steadied itself and we expect GDP for Q1 to be at 2-2.5%. Central bank demand of bullion may cap losses but momentum favours the downside in the immediate term. Accordingly, this could prompt silver to come under pressure in Q2.

Silver ETF vs Spot Price

ETF holdings have fallen despite the selloff in prices.



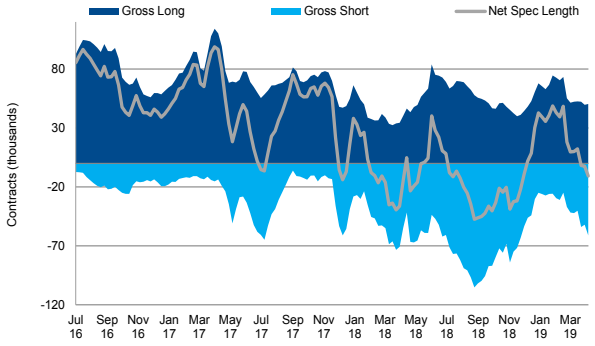
Source: Bloomberg

ETF Holdings tell the story, in the final quarter of 2018 known holdings fell 3.75% to 518m troy ounces. In this time, silver prices increased 8.73%. This suggests investors lacked belief in the rally

and looked to take profit as the silver price gained. However, investors who waited until January to take profits would have reaped the rewards for their patience as silver increased another 3.58% to $16.06/oz. ETF holdings in 2019 have declined in 2019 to 0.92% to 513m troy ounces as of April 23rd. The decline in ETF holdings suggests that investors do not believe in a rally at this time. When ETF holdings start to rise, this provides a strong indication of growing speculator demand for silver.

COMEX Managed Money Positioning

Investors have liquidated their long position.

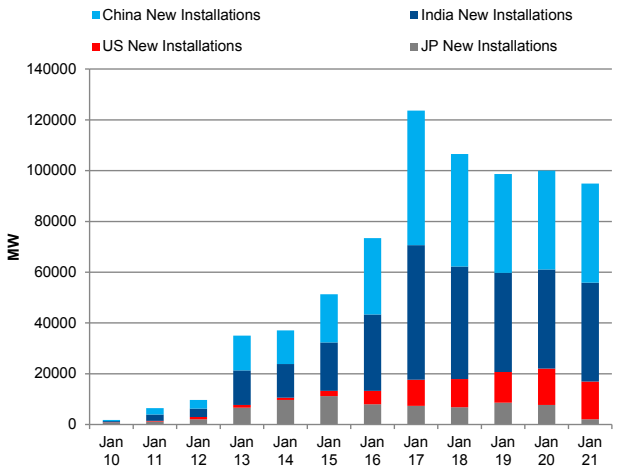


Source: Bloomberg

The CFTC data for silver outlines the change in market sentiment; speculators increased their net position to 48,706 contracts in February 2019 but speculators liquidated these long positons and now hold a 10,838 net short. The max short last year was -47,965 contracts when prices reached $14.01/oz, this presents downside risk for silver. An increase in risk appetite could trigger demand for alternative assets, as the ECB and Fed keep monetary policy at accommodative levels, silver prices may suffer from more attractive assets. The DOW Jones/silver ratio has increased once again to 1,762; the all-time high is around 2,500. This suggests that despite the DOW Jones posting record highs the ratio has failed to do so. The ratio peaked in 2000 when silver was trading around $5/oz and the DOW Jones was around 11,000. We expect this ratio to push higher as the DOW Jones benefits from accommodative monetary policy and haven demand dwindles in the immediate term.

Cumulative Installed Capacity

Utility PV capacity is the driving force behind installed capacity.

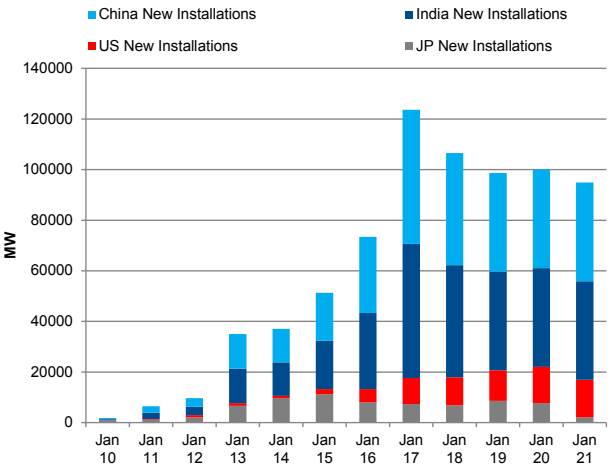


Source: Bloomberg

Silver's important industrial demand adds another dynamic to the metal. Bloomberg New Energy Finance (BNEF) has released analysis suggesting that the cost of energy storage as decreased by 76% since 2012. According to BNEF, the levelised cost of electricity for lithium ion batteries has declined 35% to $187/Mwh. In our Q1 report, we outlined the aggressive approach India was taking on PV. The omnipresent environmental movement is only gathering pace and energy storage is a boon for a selection of base metals. An increase in renewables investment would increase industrial consumption of silver. A report from Vibrant Clean Energy and Energy Innovation has suggested that 74% of coal plants cost more to operate in 2018 than replacing them with new local wind & solar power.

Annual BNEF Solar PV Forecast

China and India lead the way in PV installations.



Source: Bloomberg

Consistent with our previous report that indicated Chinese solar panel purchases would decline in 2019. China's National Renewable Energy Center announced Q1 installations were down 46% y/y (5.6GW). The decline in installations comes after the Chinese government restricted installations and cut its Feed –In tariff. Policy uncertainty could cause purchases to be held back, capping new installations. However, China's National Development and Reform Commission and National Energy Agency announced big plans to drive development have given indication of new large subsidies for wind and solar power.

Palladium - Significant Tailwinds Remain

Source: Bloomberg, 26.04.19

Summary

The time lag for manufacturers to switch to platinum is long and this will provide tailwinds to palladium in the near term. Strong demand and tighter emission regulations project a positive outlook for palladium, according to Nornickel's end of the year results statement. Along with that, moderate growth in all major mines is forecast for 2019, easing the tightening conditions, with an additional 0.2Moz and 0.1Moz coming from South Africa and Russia respectively. We expect prices to remain on trend towards the record high.

Q1 Recap: Palladium surged more than 30% to record highs at $1,614/oz. in Q1 before testing support at $1,300/oz. by the end of the quarter on the news of Chinese production cuts to curb air pollution. Tight supply prevails, and demand shift takes place away from the precious metals towards its alternative, platinum. During that period the palladium/platinum cross declined 14.9% to 1.60, and we see that trend continuing. Palladium is on track to end its multi-year run since rallying 18% in 2018 and 218% over the last three years.

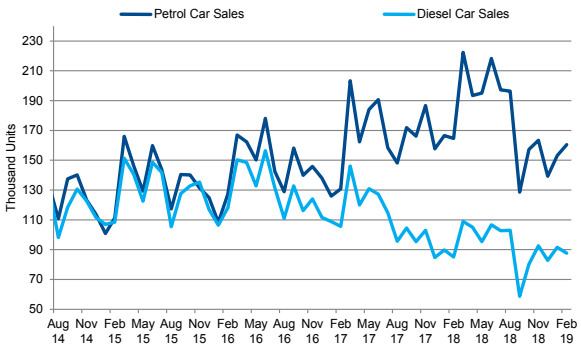
Global physical ETFs reflect the market's tightness as known holdings have continued to decline to a 10-year low of 700,426oz, from 1.063m/oz from this time last year. Indeed, the persistent decline in holdings outlines investors taking profit. The outflow from ETFs have started to moderate and this could represent a decline in demand from manufacturers; we do anticipate ETF holdings to trend lower. The manufacturers' switch may not be as easy as it sounds. According to Nornickel, metal qualities, such as thermal durability and NOx reduction differ in platinum and palladium, suggesting that further technological advancements are necessary for automakers to retool their production lines for a switch.

Outlook: In the long-term, the biggest fear to both palladium and platinum markets is government's switch to electric vehicles that do not require catalytic converters. However, depending on each country's environmental regulations, we believe that hybrids (that do require palladium) will be a more prominent vehicle type as transition away from fossil fuels takes place.

From the supply side, Nornickel stands by its forecast of 800,000oz of palladium deficit in 2019, compared to 0.6Moz in 2017 and 2018. Strong demand and tighter emission regulations project a positive outlook for palladium, according to Nornickel's end of the year results. Additionally, moderate growth in all major mines is forecast for 2019, easing the tightening conditions, with an additional 0.2Moz and 0.1Moz coming from South Africa and Russia respectively.

Petrol vs Diesel Car Sales

The divergence in petrol vs diesel sales continues.



Source: Bloomberg

We believe that prices will remain on the front foot, partly as shortages are priced in and car sales are recovering slowly. Despite a slight correction in palladium spot prices, the metal is on track to find stronger support and continue its growth, this time at a more moderate pace. Sales decline for the 8th month: sales 1.48m vehicles in February, a 13.8% y/y drop; whereas sales of NEVs surged 53.6%, with CAAM suggesting that the decline was due in part to the Lunar New Year holiday.

Auto sales in Germany have entered 2019 in a slump, undermining the resilience of the strongest European performer. Manufacturing PMI came in at 44.1 in March. Demand for both diesel and petrol has recovered in Q1. Germany sales of petrol engines surged in March to 208,040 units from 160,454 in December. Diesel sales have improved to 111,849 in March from 87,620 in February. Sales remained subdued to political uncertainty non-deal Brexit, the rise in sales were supported by a weak euro. We expect palladium prices to be supported in the near term due to the time lag of demand destruction as producers look to platinum as an alternative.

Platinum - South Africa Election Key

Source: Bloomberg, 26.04.19

Summary

The Association of Mineworkers and Construction Union, one of South Africa's mining unions, have 60 days to convince parties that their registration as a union should not be cancelled. Prices have gained as expectations for tough wage negotiations this year has raised the threat of supply disruptions in South Africa. Speculator interest has waned slightly and we expect prices to range between $800/oz - $1,100/oz.

Q1 Recap: Platinum prices continued bullish momentum as markets bet that the record high palladium prices are reflecting major shortages which might induce large carmakers to consider switching. Platinum prices have started this quarter rallying 11.13% q/q to $876/oz. and are likely to continue this trend through April. Stricter emission regulations and higher NEV sales will discourage global demand in the long-term. However, prices continue to rally on speculations of that manufacturers are shifting away from palladium.

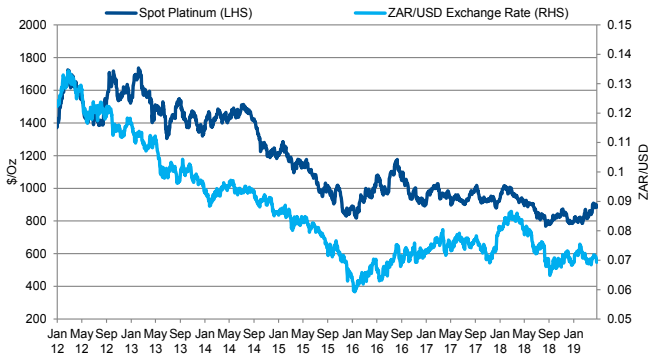
Platinum ended Q1 over 10% higher as investors' sentiment has shifted away from palladium. Known ETF holdings surged 27.68% to 2.963m troy ounce in Q1. CFTC net non-commercial futures positions declined to -2,149 contracts in February. Speculators believed manufacturers were shifting away from palladium, causing the non-commercial net position to rise to 24,207 contracts. This presents a downside risk going forward.

Outlook: According to Nornickel, the platinum market continues 2019 in surplus, with 400,000oz projected to be absorbed by ETFs. Most of the additional supply is coming from South Africa. We believe that platinum rally continues with a fair value above $910/oz driven by higher industrial demand, market volatility, and the SA Rand rally. Prices have gained as expectations for tough wage negotiations this year as top producer South Africa raised the threat of supply disruptions, and platinum's cheapness relative to other precious metals is also prompting a second look by investors.

The South African president passed minimum wage legislation at the end of 2018, which was brought into effect on January 1st 2019. The Association of Mineworkers and Construction Union, one of South Africa's mining unions, have 60 days to convinced parties that their registration as a union should not be cancelled. Timing could not be worse, as the union is set to battle Anglo American Ltd, Sibanye Gold Ltd and Lonmin Plc over a three year wage agreements.

Spot Platinum vs ZAR/USD

ZAR strength dependent on president's mandate to achieve campaign promises.



Source: Bloomberg

South Africa's presidential election is on May 8th, and Cyril Ramaphosa's campaign could provide tailwinds to ZAR. However recent movements in BRL suggest investors should be wary of large movements based on anticipated success. The correlation between the ZARUSD and platinum is 0.464 as of April 25th. Strength from the Rand would act as a tailwind to platinum in the immediate term but persistent strength is reliant on the new president achieving campaign promises. In the long term, we favour the platinum/ palladium switch which reached a record low at 0.5253 on March 29th.

Zimbabwe has signed an agreement with Russia to build new platinum mine in the southern African country, finalising a deal that's stalled since 2014. Chris Griffith, the Anglo American Platinum CEO also said there's no prospect of more new mines starting up anytime soon, even as South African producers benefit from higher prices for palladium and rhodium, which they dig up alongside platinum. We anticipate palladium to continue to outperform platinum in the immediate term.

Appendix

Global

Global Manufacturing PMI

Date	USA (Markit)	China (Caixin)	Eurozone (Markit)	Japan (Nikkei)	Emerging Markets (Markit)
Feb-2016	51.3	48.0	51.2	50.1	48.9
Mar-2016	51.5	49.7	51.6	49.1	50.2
Apr-2016	50.8	49.4	51.7	48.2	49.6
May-2016	50.7	49.2	51.5	47.7	49.6
Jun-2016	51.3	48.6	52.8	48.1	49.3
Jul-2016	52.9	50.6	52.0	49.3	50.3
Aug-2016	52.0	50.0	51.7	49.5	50.1
Sep-2016	51.5	50.1	52.6	50.4	50.4
Oct-2016	53.4	51.2	53.5	51.4	51.1
Nov-2016	54.1	50.9	53.7	51.3	50.8
Dec-2016	54.3	51.9	54.9	52.4	51.1
Jan-2017	55.0	51.0	55.2	52.7	50.8
Feb-2017	54.2	51.7	55.4	53.3	51.3
Mar-2017	53.3	51.2	56.2	52.4	51.6
Apr-2017	52.8	50.3	56.7	52.7	50.9
May-2017	52.7	49.6	57.0	53.1	50.6
Jun-2017	52.0	50.4	57.4	52.4	50.8
Jul-2017	53.3	51.1	56.6	52.1	50.9
Aug-2017	52.8	51.6	57.4	52.2	51.7
Sep-2017	53.1	51.0	58.1	52.9	51.3
Oct-2017	54.6	51.0	58.5	52.8	51.2
Nov-2017	53.9	50.8	60.1	53.6	51.6
Dec-2017	55.1	51.5	60.6	54.0	52.2
Jan-2018	55.5	51.5	59.6	54.8	51.9
Feb-2018	55.3	51.6	58.6	54.1	51.9
Mar-2018	55.6	51.0	56.6	53.1	51.3
Apr-2018	56.5	51.1	56.2	53.8	51.3
May-2018	56.4	51.1	55.5	52.8	51.1
Jun-2018	55.4	51.0	54.9	53.0	51.2
Jul-2018	55.3	50.8	55.1	52.3	51.0
Aug-2018	54.7	50.6	54.6	52.5	50.8
Sep-2018	55.6	50.0	53.2	52.5	50.3
Oct-2018	55.7	50.1	52.0	52.9	50.5
Nov-2018	55.3	50.2	51.8	52.2	50.8
Dec-2018	53.8	49.7	51.4	52.6	50.3
Jan-2019	54.9	48.3	50.5	50.3	49.5
Feb-2019	53.0	49.9	49.3	48.9	50.6
Mar-2019	52.4	50.8	47.5	49.2	51.0
Apr-2019	52.4		47.8	49.5	

Source: Bloomberg

Aluminium

Price and Chinese Quarterly Supply/Demand Balance Forecast (kt)

		Production	Consumption	Balance	Stocks Days Cons	SHFE Cash Price $/tonne
2015						
	Q1	7420	6092	1328	90	2077
	Q2	7733	7463	270	77	2107
	Q3	7894	7597	297	80	1911
	Q4	7753	8221	-468	69	1657
	Total/Average	30800	29373	1427	74	1952
2016						
	Q1	7622	6527	1095	98	1693
	Q2	8009	8096	-87	79	1880
	Q3	8302	8217	86	79	1888
	Q4	8567	8825	-258	71	1997
	Total/Average	32500	31664	836	77	1952
2017						
	Q1	9164	7164	1999	109	1971
	Q2	9362	8795	567	96	2023
	Q3	9003	8897	106	97	2316
	Q4	9301	9563	-262	88	2306
	Total/Average	36830	34419	2410	95	1867
2018						
	Q1	9019	7568	1452	123	2247
	Q2	9124	9316	-192	99	2271
	Q3	9244	9454	-210	97	2112
	Q4	9038	10182	-1144	80	2003
	Total/Average	36425	36519	-94	86	2159
2019						
	Q1	9139	7914	1225	112	2001
	Q2	9367	9757	-390	88	
	Q3	9681	9892	-211	86	
	Q4	9869	10636	-768	73	
	Total/Average	38055	38199	-143	79	
2020						
	Q1	9743	8323	1419	104	
	Q2	9927	10242	-314	83	
	Q3	10113	10379	-266	80	
	Q4	10190	11165	-975	67	
	Total/Average	39973	40109	-136	71	

Source: Wood Mackenzie

Aluminium Forecasts

Global (Mt)	2016	%	2017	%	2018	%	2019	%	2020	%	2021	%
Alumina Production (SGA)	115.0	4.0%	124.2	8.0%	124.5	0.3%	129.4	3.9%	135.8	9.2%	141.3	4.1%
Aluminium Production	59.5	4.1%	64.2	8.0%	64.4	0.3%	67.0	4.0%	70.4	5.0%	73.3	4.1%
Consumption	59.6	5.4%	63.3	6.2%	65.9	4.1%	68.2	3.5%	70.9	3.9%	73.7	4.0%
Metal Market Balance	-0.1		0.9		-1.5		-1.2		-0.5		-0.4	
Stock Days of Consumption	83		84		72		63		58		54	
Alumina Market Balance	-1.9		-2.4		-4.4		1.4		2.9		3.5	
Stock Days of Requirement	51		40		27		30		36		44	
Prices												
Cash Aluminium ($/t)	1604		1968		2110		2008		2170		2260	
(c/lb)	73		89		96		91		98		103	
Spot Alumina ($/t)	254		354		474		390		337		340	

Source: Wood Mackenzie

Price Forecasts and World Quarterly Supply/Demand Balance

		Production	Consumption	Balance	Stocks Days Cons	LME Cash Price $/tonne
2015						
	Q1	13919	12771	1149	100	1800
	Q2	14289	14453	-165	88	1768
	Q3	14507	14426	81	90	1589
	Q4	14454	14891	-437	84	1495
	Total/Average	57169	56541	629	88	1663
2016						
	Q1	14269	13420	848	97	1515
	Q2	14676	15276	-600	83	1571
	Q3	15125	15228	-102	83	1620
	Q4	15442	15682	-241	80	1710
	Total/Average	59512	59606	-94	83	1604
2017						
	Q1	15907	14301	1606	96	1849
	Q2	16169	16236	-67	85	1911
	Q3	15918	16149	-231	85	2011
	Q4	16251	16628	-377	80	2100
	Total/Average	64245	63314	931	84	1968
2018						
	Q1	15917	14859	1057	94	2158
	Q2	16089	16946	-857	79	2259
	Q3	16309	16824	-515	78	2055
	Q4	16132	17284	-1153	69	1967
	Total/Average	64446	65913	-1467	72	2110
2019						
	Q1	16171	15371	800	81	1858
	Q2	16534	17549	-1015	66	1940
	Q3	17046	17418	-371	64	2083
	Q4	17258	17877	-619	60	2150
	Total/Average	67009	68214	-1205	63	2008
2020						
	Q1	17126	15962	1164	73	2110
	Q2	17452	18223	-771	60	2140
	Q3	17824	18090	-265	60	2200
	Q4	17979	18583	-604	55	2230
	Total/Average	70381	70857	-476	58	2170

Source: Wood Mackenzie

Copper

Copper Forecasts

Global (kt)	2018	%	2019	%	2020	%	2021	%
Total Mine Production	20773	3.7	20623	-0.7	21276	3.2	22002	3.4
Total Smelter Production	19697	3.3	19573	-0.6	20197	3.2	21205	5.0
Refined Production	23638	2.6	23687	0.2	24100	1.7	24956	3.6
Consumption	23603	2.4	24067	2.0	24416	1.5	24688	1.1
Concentrate Stock Change	-186		-50		200		150	
Metal Market Balance	35		-380		-316		269	
Metal Stocks - Days of Cons	69		62		57		60	
Prices								
Cash LME Price ($/t)	6523		7241		8588		8488	
(c/lb)	296		328		390		385	
Contract TC/RCs (c/lb excl pp) for 30% Cu Conc	21.1		20.7		20.1		20.0	
Contract Blister Europe ($/t)	165		160		160		160	

Source: Wood Mackenzie

Copper Concentrate Market TC/RCs

	Asia Term Contracts (Benchmark)			Far East Spot Market (CIF Asia) Miner Selling Terms to Merchants						
	2017	2018	2019	2015	2016	2017	2018	2018		
	Ave	Ave	Ave	Ave	Ave	Ave	Q3	Oct	Nov	Dec
T/C ($/tonne Conc.)	92.50	82.25	80.80	84	87	73	90	80	68	65
R/C (c/lb Cu)	9.25	8.23	8.08	8.4	8.7	7.3	9.0	8.0	6.8	6.5
PP (c/lb Cu)										
Combined (c/lb) +	26.7	23.8	23.4	24.3	25.1	21.1	26.0	23.1	19.7	17.4
Combined (c/lb) #	23.7	21.1	20.7	21.5	22.3	18.7	23.1	20.5	17.4	16.7
				Chinese smelter buying terms (CIF basis)						
				2015	2016	2017	2018	2019		
				Ave	Ave	Ave	Q4	Jan	Feb	Mar
T/C ($/tonne Conc.)				98	95	84	94	84	78	75
R/C (c/lb Cu)				9.8	9.5	8.4	9.4	8.4	7.8	7.5
PP (c/lb Cu)				-	-	-				
Combined (c/lb) +				28.4	27.5	24.3	27.2	24.3	22.5	21.7
Combined (c/lb) #				25.2	24.4	21.5	24.1	21.5	20.0	19.2
+ For a 25% copper concentrate										
# For a 30% copper concentrate										

Source: Wood Mackenzie

Price Forecasts & Quarterly Supply/Demand Balance

		Refined Production	Refined Consumption	Balance	Metal Stocks Days of Cons	Cash Price $/tonne	c/lb
2018							
	Q1	5925	5351	574	78	6960	316
	Q2	5889	6252	-363	72	6872	312
	Q3	5863	6158	-295	67	6105	277
	Q4	5961	5841	119	69	6171	280
	Total/Avg	23638	23603	35	69	6523	296
2019							
	Q1	5840	5398	442	75	6214	282
	Q2	5820	6353	-533	67	7300	331
	Q3	5974	6323	-349	61	7750	352
	Q4	6053	5993	60	62	7700	349
	Total/Avg	23687	24067	-380	62	7241	328
2020							
	Q1	6023	5498	525	69	8150	370
	Q2	6023	6428	-405	63	8500	386
	Q3	6023	6416	-393	57	8900	404
	Q4	6030	6073	-43	57	8800	399
	Total/Avg	24100	24416	-316	57	8588	390
2021							
	Q1	6236	5573	663	66	8350	379
	Q2	6237	6501	-264	62	8450	383
	Q3	6240	6487	-246	58	8650	392
	Q4	6243	6127	116	60	8500	386
	Total/Avg	24956	24688	269	60	8488	385

Source: Wood Mackenzie

Lead

Global Quarterly Supply/Demand Balance And Price Forecasts

		Refined Prod'n	Cons'n	Balance	Stock Days	$/tonne	c/lb
2017							
	Q1	2878	2847	31	49	2278	103.3
	Q2	3061	3194	-133	40	2164	98.2
	Q3	3128	3152	-24	40	2333	105.8
	Q4	3204	3275	-71	36	2493	113.1
	Total/Avg	12272	12468	-197	39	2317	105.1
2018							
	Q1	2890	2879	11	42	2522	114.4
	Q2	3088	3234	-146	33	2387	108.3
	Q3	3162	3197	-34	32	2102	95.3
	Q4	3236	3320	-85	29	1963	89.0
	Total/Avg	12376	12630	-255	31	2243	101.8
2019							
	Q1	3010	2927	83	35	2036	92.4
	Q2	3204	3288	-84	29	2025	91.9
	Q3	3273	3251	22	30	2000	90.7
	Q4	3364	3381	-17	28	2050	93.0
	Total/Avg	12850	12846	4	30	2028	92.0
2020							
	Q1	3087	2994	93	35	2050	93.0
	Q2	3285	3365	-80	29	2000	90.7
	Q3	3362	3325	37	30	1975	89.6
	Q4	3453	3455	-2	29	2025	91.9
	Total/Avg	13186	13139	47	31	2013	91.3

Source: Wood Mackenzie

Lead Forecasts

Global (kt)	2018	%	2019	%	2020	%	2021	%
Mine production	4873	2.0	5013	2.9	5298	5.7	5515	4.1
Refined production	12376	0.8	12850	3.8	13265	3.2	13540	2.1
Consumption	12630	1.3	12846	1.7	13139	2.3	13150	0.1
Concentrate balance	12		-20		36		117	
In days of requirement	23		21		23		30	
Refined market balance	-255		4		126		390	
In days of requirement	31		30		33		44	
Prices								
Cash LME Price ($/t)	2243		2028		2013		1981	
(c/lb)	101.8		92.0		91.3		89.9	
Realised TCs ($/t conc)	106		110		122		135	

Source: Wood Mackenzie

Nickel

Global Nickel Quarterly Supply/Demand Balance - (kt)

		Refined Supplies	Refined Consumption	Balance	Cash Price $/tonne	c/lb	Stocks kt	Days of Cons
2018	Q1	545	564	-20	13283	603	1365	218
	Q2	555	578	-24	14463	656	1342	211
	Q3	547	562	-15	13240	601	1327	217
	Q4	579	587	-8	11469	520	1319	207
	Total/Avg	2226	2292	-66	13114	595		
2019	Q1	572	565	7	12403	563	1326	211
	Q2	581	597	-16	13117	595	1310	199
	Q3	586	588	-2	13926	632	1308	205
	Q4	596	611	-16	14771	670	1292	194
	Total/Avg	2335	2362	-27	13554	615		
2020	Q1	609	618	-9	14514	658	1283	187
	Q2	610	639	-29	15873	720	1255	179
	Q3	597	618	-21	15653	710	1234	184
	Q4	614	634	-20	15800	717	1214	176
	Total/Avg	2430	2509	-78	15460	701		
2021	Q1	636	638	-1	14955	678	1212	171
	Q2	639	659	-21	16535	750	1192	164
	Q3	640	652	-12	16755	760	1180	167
	Q4	641	669	-28	17857	810	1152	158
	Total/Avg	2557	2619	-62	16525	750		

Source: Wood Mackenzie

Nickel Forecasts

Global (kt)	2018		2019		2020		2021	
Mine Production	2296	+6.7%	2411	+5.0%	2574	+6.7%	2725	+5.9%
Smelter Production	2189	+5.6%	2280	+4.1%	2353	+3.2%	2449	+4.1%
Refined Production	2226	+5.4%	2335	+4.9%	2430	+4.1%	2557	+5.2%
Consumption	2292	+4.8%	2362	+3.0%	2509	+6.2%	2619	+4.4%
Market Balance	-66		-27		-78		-62	
Cash LME price								
($/t - Current)	13114		13554		15460		16525	
(c/lb - Current)	595		615		701		750	

Source: Wood Mackenzie

Tin

ICDX & LME Tin Price

	ICDX	LME Cash	LME premium to ICDX
01-Feb-16	14,750	14,854	104
01-Mar-16	16,100	16,155	55
01-Apr-16	16,800	16,743	-57
02-May-16	17,225	17,220	-5
01-Jun-16	16,300	16,200	-100
01-Jul-16	16,950	17,375	425
01-Aug-16	17,950	17,865	-85
01-Sep-16	19,000	19,165	165
03-Oct-16	20,150	20,060	-90
01-Nov-16	20,500	21,015	515
01-Dec-16	21,350	21,315	-35
03-Jan-17	21,100	21,094	-6
01-Feb-17	19,950	19,814	-136
01-Mar-17	19,300	19,500	200
03-Apr-17	20,100	20,084	-16
02-May-17	20,100	20,015	-85
02-Jun-17	20,425	20,420	-5
04-Jul-17	20,000	20,240	240
01-Aug-17	20,700	20,650	-50
04-Sep-17	20,880	20,985	105
03-Oct-17	20,700	20,954	254
01-Nov-17	19,650	19,535	-115
04-Dec-17	19,600	19,582	-18
02-Jan-18	20,100	20,112	12
01-Feb-18	21,820	21,550	-270
01-Mar-18	21,800	21,755	-45
02-Apr-18	21,100	21,252	152
01-May-18	21,375	21,340	-35
01-Jun-18	20,800	20,795	-5
02-Jul-18	19,850	19,825	-25
01-Aug-18	20,100	19,925	-175
03-Sep-18	19,200	18,895	-305
01-Oct-18	19,150	18,970	-180
01-Nov-18	19,180	19,115	-65
03-Dec-18	18,690	18,871	181
02-Jan-19	19,525	19,508	-17
01-Feb-19	20,750	20,985	235
01-Mar-19	21,790	21,710	-80
05-Apr-19	21,515	21,524	9

Source: LME, ICDX

Zinc

Price Forecasts and World Quarterly Supply/Demand Balance

		Refined Supplies	Refined Consumption	Balance	Metal Stocks Days of Cons	Cash $/tonne	Price c/lb
2017	Q1	3,346	3,520	-174	84	2,781	126.1
	Q2	3,317	3,599	-281	75	2,598	117.8
	Q3	3,345	3,542	-197	71	2,962	134.3
	Q4	3,508	3,563	-55	69	3,234	146.7
	Total/Avg	13,517	14,223	-707	69	2,893	131.2
2018	Q1	3,325	3,512	-187	65	3,422	155.2
	Q2	3,340	3,590	-251	57	3,113	141.2
	Q3	3,189	3,533	-345	49	2,534	114.9
	Q4	3,413	3,555	-142	45	2,629	119.3
	Total/Avg	13,267	14,191	-924	45	2,925	132.7
2019	Q1	3,297	3,545	-247	39	2,698	122.4
	Q2	3,388	3,623	-235	32	2,983	135.3
	Q3	3,471	3,566	-95	31	3,700	167.8
	Q4	3,566	3,588	-22	30	3,700	167.8
	Total/Avg	13,722	14,322	-600	30	3,270	148.3
2020	Q1	3,603	3,615	-12	29	3,700	167.8
	Q2	3,679	3,695	-16	28	3,600	163.3
	Q3	3,644	3,637	7	29	3,500	158.8
	Q4	3,698	3,659	39	30	3,400	154.2
	Total/Avg	14,624	14,606	18	30	3,550	161.0

Source: Wood Mackenzie

Price Forecasts and World Quarterly Supply/Demand Balance

Global (kt)	2018	%	2019	%	2020	%	2021	%
Mine Production	12921	2.4	13445	4.1	14510	7.9	15071	3.9
Refined Production	13267	-1.8	13722	3.4	14624	6.6	15203	4.0
Consumption	14191	-0.2	14322	0.9	14606	2.0	14837	1.6
Concentrate Market Balance	287		398		622		647	
Metal Market Balance	-924		-600		18		366	
Prices								
Cash LME Price ($/t)	2925		3270		3550		2775	
(c/lb)	133		148		161		126	
Realised TCs ($/t concentrate)	147		259		333		396	

Source: Wood Mackenzie

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