Copper Market Outlook: Short-term weakness, long-term strength

Erik Heimlich
Principal analyst

Copper to the World Conference,
Adelaide Convention Centre,
18th June 2019
Legal notice

This presentation is private and confidential. It must not be disclosed in whole or in part, directly or indirectly or in any other format without the prior written permission of CRU International Limited.

CRU International Limited’s responsibility is solely to its clients and its liability is limited to the amount of the fees actually paid for professional services.

Although reasonable care and diligence has been used in the preparation of this presentation, we do not guarantee the accuracy of any data, assumptions, forecasts or other forward-looking statements. We accept no liability to third parties, howsoever arising.

CRU takes information security seriously and currently holds the UK Government approved Cyber Essentials certification. This certifies that we have the appropriate security controls across our organisation and third party suppliers to protect our information assets. CRU also has a privacy policy in place which explains how we handle personal data on our customers.
Contents

- From long to short
- Receding deficits
- Policy uncertainty
- Long-term strength
Price falls below $6,000/t; approaches 90th percentile cash cost position

Low growth on the supply side suggested the copper market could tighten...

...but demand picture outside of China has softened in 2019.

Data: CRU, LME
Low visible copper stocks give only a partial view of the market

One pillar of support to the copper price had been the drawdown in exchange stocks

However, several indicators suggested a rise in off-warrant inventories.

Data: CRU, LME, SHFE, CFTC, IHS Markit
Trade tensions and weak economic readings turn investors bearish

Chinese official manufacturing PMI

China's official PMI for May was 49.4, indicating a contraction and, more significantly, it was below consensus.

US CFTC managed money + other reportable net positions, '000 lots

Some funds using copper as a vehicle to play increased macroeconomic uncertainty.

Data: CRU, CFTC, NBS
Contents

From long to short

Policy uncertainty

Receding deficits

Long-term strength
China stimulus is smaller than in past and is mainly in form of tax cuts

Trade war has led to downgrade China’s GDP growth this year and next, but revisions are small since policy easing expected to offset the decline.

Two thirds of fiscal stimulus in the form of taxes

Fiscal stimulus; % of GDP

Data: CRU
Government spending will support Chinese copper demand growth

Data: CRU, SGCC, CEIC

Grid infrastructure investment, Bn RMB

Infrastructure investment and residential starts, % y/y

Data: CRU, SGCC, CEIC
…but Chinese demand will not react as in previous stimulus rounds

Data: CRU

Copper Market Outlook

Change in Chinese total copper demand y/y, ‘000t

% of Chinese total copper demand export related

Data: CRU
China will add large volumes of demand but growth rates slow down

CAGR of key sectors; 2018-2023

- GDP to fall below 6% after 2020
- IP is slowing at a faster pace than GDP

Consumption growth by sector; 2018-2023 '000t

- Economy in transition
- Other priorities other than just short-term GDP growth

Data: CRU
Growth outside of China required to maintain momentum

Growth in global refined copper demand, % y-o-y

CAGR 2018-2023 = 2%

Absolute growth in copper demand 2018-2023; %

- China: 53%
- India: 12%
- ASEAN: 10%
- Other: 8%
- Europe: 6%
- Middle East & Turkey: 4%
- North America: 4%

Data: CRU
Projects receive board approval leading to increased mine supply

Capacity and status of mine projects with LOM capacity >=75,000 t/y; ‘000 t

2018-23 supply increase, ‘000 t

Cumulative addition of 0.8 Mt to forecast

Data: CRU
Cash costs and US dollar supportive of copper price in medium term

Copper mine cash costs net of by-product, $ /t

US$ broad trade weighted index, March 1973=100.

Data: CRU
Receding deficits limit the upside for copper prices

Refined copper market balance, 2015-2023; '000t

$/t LME 3M price

Data: CRU, LME
Contents

From long to short  
Policy uncertainty

Receding deficits  
Long-term strength
EVs are key to refined copper, without them global demand will plateau

BEVs reach 10% of global light duty vehicle production in 2028. By 2030, BEVs represent 16% of global output.

What would be the effect of stripping out EVs and associated infrastructure from our demand projections?
The supply gap will reach 8 Mt by the end of the next decade

Forecast committed copper mine production and potential from uncommitted projects versus primary copper demand; Mt

- Gap between committed mine output and primary copper demand opens up almost immediately and grows rapidly during the 2020s.
- Committed production faces resource exhaustion and declining grades.

Data: CRU
Steep cash cost curve and high capex requirements for copper mining

Economies of scale are still one of the main determinants of position on the cost curve.

Large projects can be capital intensive.

Bubble size = capital expenditure

Data: CRU
Copper mining projects are increasingly challenging to develop

Block caves throughput and head grades; Mt ore, % Cu

Global head grades at milling operations; % Cu

Lower grades make mining copper resources more challenging.

There are other factors: difficult locations, complex mineralogy, remoteness, lack of infrastructure…

Data: CRU
Significant social / political challenges to develop uncommitted pipeline

2030 production capacity from uncommitted projects; ‘000 t

Uncommitted greenfield projects >150kt/y by 2030; ‘000 t

Significant environmental and social issues in some of the key mining jurisdictions. Resource nationalism on the rise.
There are risks to the long-term view: scrap & substitution

With strong government support, China can increase domestic scrap generation.

Substitution to aluminium remains a threat, but pace of change has slowed.

Copper demand growth has lagged aluminium in China.
Conclusions

Copper price approaches the 90th percentile cash cost position. We think this is not reflective of market fundamentals.

China’s stimulus feeding through to real economy and copper demand, but stimulus is supportive rather than game changing.

Project pipeline firms up. Demand growth outside of China required. Receding deficits limit the upside for copper prices.

Greening of power and transportation markets to sustain long term demand. Mine project development increasingly challenging.
Thank you for your attention!

Erik Heimlich
Principal analyst
+56 56 222 313 900
erik.heimlich@crugroup.com