

Daiwa's View

Implications of correlation between copper prices and US long-term yields

- Inflation expectations (BEI) may temporarily peak out together with copper prices

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Daiwa Securities Co. Ltd.

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Implications of correlation between copper prices and US long-term yields

What are the possible implications of recent resource price changes on US long-term yields? We will state the conclusion first—under the assumption that the existing correlation is maintained, this implies that [inflation expectations \(BEI\) may temporarily peak out](#) together with copper prices.

First, we will confirm the price developments of major commodities of gold and copper. Gold rose to above \$2,000/toz in August 2020, but it has declined to \$1,700/toz amid the rise in US yields. Meanwhile, the copper price (generally regarded as more sensitive to economic trends) has risen to a high range unseen since 2011. The background of this price hike is the combination of a supply shortage in line with the COVID-19 pandemic and strong demand caused by the “green cycle” related to clean energy such as electric vehicles.

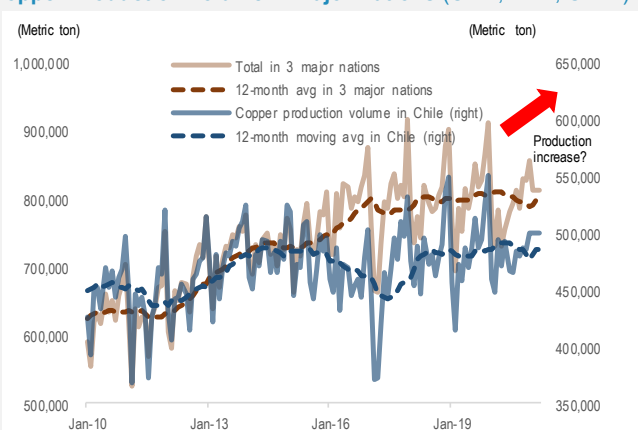
That said, the rise in copper prices appears to be peaking out for now. One reason is that the bottleneck on the supply side is likely to be resolved as mining activities become active amid the rise in the first vaccination rate to above 40%¹ in Chile, which accounts for 28.4% of the total mining volume in 2019 (according to US Geological Survey). As demand from the clean energy-related field, a driver on the demand side, is expected to remain brisk, a substantial drop in prices is not expected. However, it would become easier to make for a balance of supply and demand.

Prices of Gold Futures, LME Copper Futures



Source: Bloomberg; compiled by Daiwa Securities.

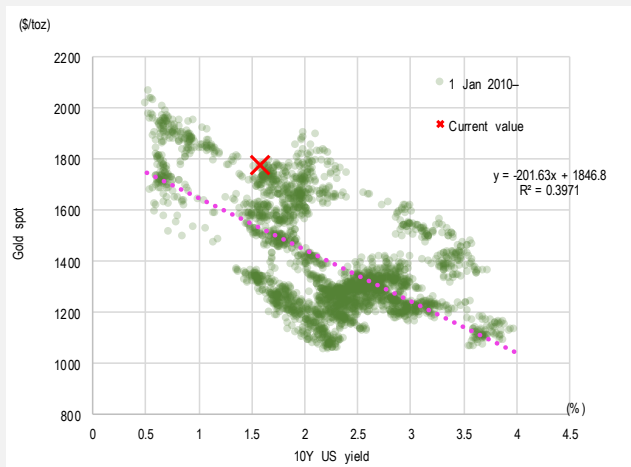
Copper Production Volume in Major Nations (Chile, Peru, China)



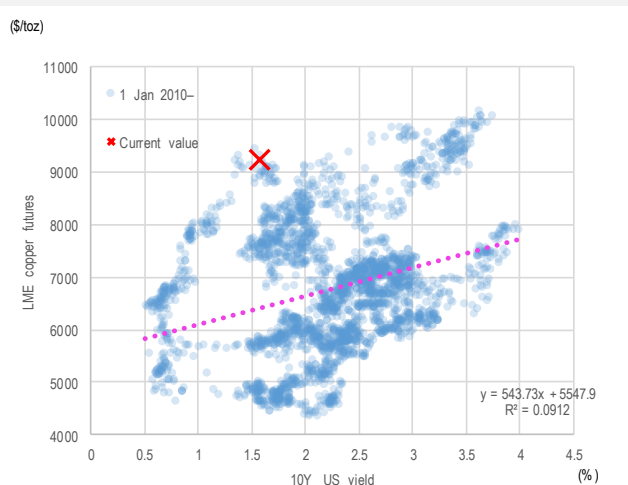
Source: Bloomberg; compiled by Daiwa Securities.

¹ In Chile, new COVID-19 cases/day slightly below 7,000 on 7-day moving avg. basis. Surge in new cases likely is caused by early easing of lockdowns in line with vaccinations. China's Sinovac Biotech vaccine adopted. According to University of Chile report, efficacy is 54%.

Next, we compiled scatter charts to look at the relationship between the US long-term yield and prices of commodities (gold, copper). They confirmed that the US long-term yield and gold have a slightly inverse correlation with a determination coefficient of 0.398, while the yield and copper are virtually uncorrelated with a determination coefficient of 0.095.

Gold Price, 10Y US Yield


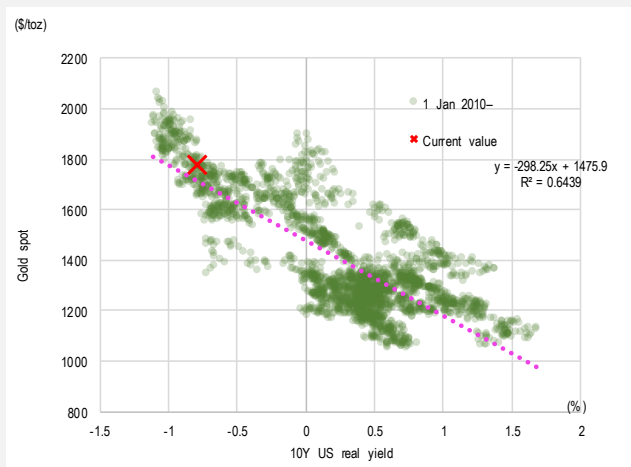
Source: Bloomberg; compiled by Daiwa Securities.

Copper Price, 10Y US Yield


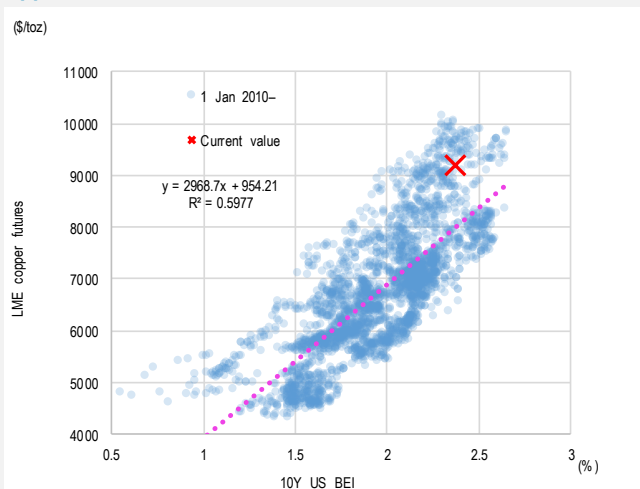
Source: Bloomberg; compiled by Daiwa Securities.

Moreover, we arrive at the respective correlations by dividing the US long-term yield into inflation expectations (BEI) and the real yield. It is confirmed that the determination coefficient of 0.643 between the gold price and the real yield shows an inverse correlation, while that of 0.597 between the copper price and the BEI represents a positive correlation. In observing the real correlation between commodities and yields, the aforementioned breakdown is important.

In particular, we found a relatively strong positive correlation between the copper price and the BEI, with the determination coefficient of 0.597. Dubbed “Dr. Copper,” the demand trend of copper reflects economic conditions. Therefore, the recovery phase of the BEI is probably leading to an improvement in the output gap (cause of inflation). It appears that there is a structure of demand-pull inflation, in which demand (economic boom) is working on inflation expectations.

Gold Price, 10Y US Real Yield


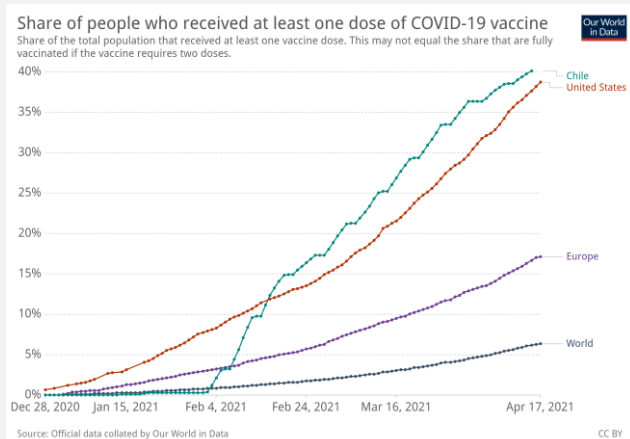
Source: Bloomberg; compiled by Daiwa Securities.

Copper Price, 10Y US Breakeven Inflation Rate


Source: Bloomberg; compiled by Daiwa Securities.

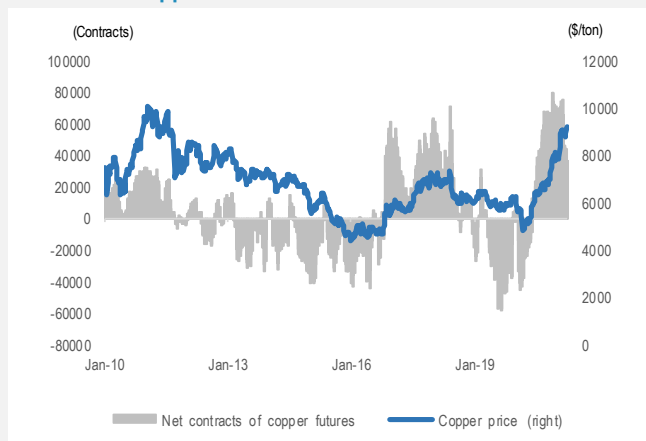
As mentioned above, given the progress of vaccinations in Chile, the bottleneck in the supply side is likely to be resolved. Looking at the CFTC copper futures position, speculative investors rapidly turned to net buyers in 2020 and posted record-high net purchases of more than 80,000 contracts in December 2020. However, nearly half of the open interest is now settled. At around the upper limit of the historical range, investors are aware of upside resistance of the copper price. Under the assumption that the existing correlation is maintained, the peaking out of the copper price in line with the current pace implies a temporary peaking out of inflation expectations (BEI) as well.

COVID-19 Vaccination Rate



Source: Extracted from Our World in data.

Net Position of CFTC Copper Futures by Speculative Investors, Price of LME Copper Futures



Source: Bloomberg; compiled by Daiwa Securities.

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■ Credit Rating Agencies

[Standard & Poor's]

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[Moody's]

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Other Disclosures Concerning Individual Issues:

1) As of 26 April 2016, Daiwa Securities Co. Ltd., its parent company Daiwa Securities Group Inc., GMO Financial Holdings, Inc., and its subsidiary GMO CLICK Securities, Inc. concluded a basic agreement for the establishment of a business alliance between the four companies.

As of end-December 2017, Daiwa Securities Group Inc. owned shares in GMO Financial Holdings, Inc. equivalent to approximately 9.3% of the latter's outstanding shares. Given future developments in and benefits from the prospective business alliance, Daiwa Securities Group Inc. could boost its stake in GMO Financial Holdings, Inc. to up to 20% of outstanding shares.

2) Daiwa Real Estate Asset Management is a subsidiary of Daiwa Securities Group Inc. and serves as the asset management company for the following J-REITS: Daiwa Office Investment Corporation (8976), Daiwa Securities Living Investment Corporation (8986).

3) Samty Residential Investment became a consolidated subsidiary of Daiwa Securities Group Inc. effective 10 September 2019.

4) On 30 May 2019, Daiwa Securities Group Inc. formalized an equity/business alliance with Samty, and as of 14 June 2019 it owned 16.95% of shares outstanding in Samty along with convertible bonds with a par value of ¥10bn. Conversion of all of said convertible bonds into common shares would bring the stake of Daiwa Securities Group Inc. in Samty to 27.28%.

5) Daiwa Securities Group Inc. and Credit Saison Co., Ltd. entered into a capital and business alliance, effective 5 September 2019. In line with this alliance, Daiwa Securities Group Inc. is to acquire up to 5.01% of Credit Saison's total common shares outstanding (excl. treasury shares; as of 31 Jul 2019).

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- In addition to the purchase price of a financial instrument, our company will collect a trading commission* for each transaction as agreed beforehand with you. Since commissions may be included in the purchase price or may not be charged for certain transactions, we recommend that you confirm the commission for each transaction. In some cases, our company also may charge a maximum of ¥2 million per year as a standing proxy fee for our deposit of your securities, if you are a non-resident.
- For derivative and margin transactions etc., our company may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements**.
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by our company.
- Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants.

* The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

** The ratio of margin requirements etc. to the amount of the transaction cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

When making an actual transaction, please be sure to carefully read the materials presented to you prior to the execution of agreement, and to take responsibility for your own decisions regarding the signing of the agreement with our company.

Corporate Name: Daiwa Securities Co. Ltd.

Registered: Financial Instruments Business Operator, Chief of Kanto Local Finance Bureau (Kin-sho) No.108

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