REFINITIV/CORECOMMODITY CRB® INDICES

15-Mar-2022

CRB®ANNOUNCEMENT FOLLOWING CONSULTATION EXCEPTIONAL LME NICKEL MARKET

DISRUPTION

Refinitiv Benchmarks Services (UK) Limited, as the benchmarks administrator for the Refinitiv/CoreCommodity CRB® Index (along with sub-indices) previously requested on 10 March 2022 for wider market feedback on the Index methodology to address exceptional market conditions related to the prolonged LME Nickel market disruption from 8th March 2022 onward.

Having evaluated the inputs received from market participants, Refinitiv Benchmarks Services (UK) Limited, after consultation with the Refinitiv/CoreCommodity CRB® Oversight Committee and in line with our governance process, has decided to declare the event as Market Emergency under section "Insufficient Data and Market Disruptions" of the Index methodology and to take the following actions:

- Apply a one-off Nickel P&L adjustment (based on the difference between 7th March 2022 Nickel end of the day settlement value and <u>LME Nickel market</u>
 <u>Resumption date</u> end of the day official undisrupted settlement value).
- After the Nickel P&L adjustment apply a one-off rebalance based on same day's unadjusted closing weights.

In the event that on LME Nickel market resumption date Nickel settles at the daily maximum price or the daily minimum price then the above adjustments will be postponed until the next business day until LME Nickel will disseminate undisrupted official end of the day settlement value.

REFINITIV/CORECOMMODITY CRB® INDICES

In addition, and in consideration of inputs provided by market participants in response to the consultation, Refinitiv Benchmarks Services (UK) Limited is continuing to review its Refinitiv/CoreCommodity CRB® index rebalance policies for prolonged disruptive events (not usual holidays).

Details of Exceptional Nickel P&L adjustment

Nickel P&L Adjustment on the day of LME Nickel Clean Resumption Day

$$PR_N = \left(PR_t - PR_p\right) \times \frac{CPS_r - CPS_d}{CPS_d}$$

Where $PR_t = PR_{t-1} * \frac{CPS_t}{CPS_{t-1}}$ after close of 8th March 2022 prior to 6th business day regular rebalance

And PR_p is Nickel percent return after 6^{th} business day regular rebalance

 CPS_d denotes Nickel end of day settlement price on 7th March 2022 prior to market disruption and CPS_r represents the LME Nickel resumption day's undisrupted end of day settlement price

Ad-hoc Rebalance after Nickel P&L adjustment

Rescaling the percent return for individual commodities ($PR_{i,t}$) belonging to each Commodity based on Nickel P&L unadjusted closing weights W_i (not the 6th business day regular rebalance weights)

$$PR_{i,t} = W_i \times (ER_t + PR_N)$$

Where PR_N - Nickel one-off P&L adjustment

and ER_t – Excess Return prior to Nickel P&L adjustment.

REFINITIV/CORECOMMODITY CRB® INDICES

Nickel One of Adjustment will be applicable for below Refinitiv/CoreCommodity CRB® Indices

Refinitiv/CoreCommodity CRB® Excess Return Index	.TRCCRB
Refinitiv/CoreCommodity CRB® Total Return Index	.TRCCRBTR
Refinitiv/CoreCommodity CRB® Total Return Euro Daily Hedge Index	.TRCCRBTH
Refinitiv/CoreCommodity CRB® 3-Month Forward Excess Return Index	.TRCCTBER
Refinitiv/CoreCommodity CRB® 3-Month Forward Total Refturn Index	.TRCCTBTR
Refinitiv/CoreCommodity CRB® Ex-Energy Excess Return Index	.TRCCRBNEER
Refinitiv/CoreCommodity CRB® Ex-Energy Total Return Index	.TRCCRBNETR
Refinitiv/CoreCommodity CRB® 3-Month Forward Ex-Energy Excess Return Index	.TRCCTXER
Refinitiv/CoreCommodity CRB® 3-Month Forward Ex-Energy Total Return Index	.TRCCTXTR
Refinitiv/CoreCommodity CRB® Index Non-Agriculture and Livestock Excess Return	.TRCCRBNALER
Refinitiv/CoreCommodity CRB® Index Non-Agriculture and Livestock Total Return	.TRCCRBNALTR
Refinitiv/CoreCommodity CRB® 3-Month Forward Index Non-Agriculture and Livestock Excess Return	.TRCCAXER
Refinitiv/CoreCommodity CRB® 3-Month Forward Index Non-Agriculture and Livestock Total Return	.TRCCAXTR

Feedback should be sent to index_queries@refinitiv.com.