

## **Theoretical Spot Price of Cash-settled Rolling Spot Futures Transactions Determination Detailed Rules**

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### Article 1 (Purpose)

1. These regulations establish the necessary matters in connection with the determination of the theoretical spot price of Cash-settled Rolling Spot Futures Transactions, as prescribed in Article 3.7-2 of the Market Rules.

### Article 2 (Definitions of Theoretical Spot Price)

1. The theoretical spot price of Cash-settled Rolling Spot Futures Transactions shall be calculated from the settlement price of the first contract month of underlying Physically Delivered Futures Transactions, using the forward rate (meaning the theoretical lease rate in TOCOM market; the same shall apply hereinafter) computed from the settlement prices of the first and the sixth contract months of underlying Physically Delivered Futures Transactions, and the number of days remains until the last trading day of the first contract month.
2. Notwithstanding the provision of previous paragraph, the phrase "first contract month" shall be deemed to be replaced with "second contract month" in case of the last trading day of the first contract month for underlying Physically Delivered Futures Transactions.

### Article 3 (Calculation of Theoretical Spot Price)

1. The Theoretical Spot Price of Cash-settled Rolling Spot Futures Transactions shall be the price determined by the Clearing House, after the Exchange notifies the Clearing House of the price calculated in accordance with the calculation formula set forth below (formula in item 2 shall apply in case of the last trading day of the first contract month of underlying Physically Delivered Futures Transactions), provided, however, that any resulting fractions less than JPY1 shall be rounded off.

$$(1) \quad r_1 = [\log(F_6/F_1)] / t_{1-6}$$
$$S = F_1 / e^{r_1 \cdot t_{0-1}}$$

$$(2) \quad r_2 = [\log(F_6/F_2)] / t_{2-6}$$
$$S = F_2 / e^{r_2 \cdot t_{0-2}}$$

Note: The meaning of each code in the formula shall be as below. The calculated forward rate shall be round to seventh decimal places.

s: Theoretical Spot Price

r<sub>1</sub>: Forward rate calculated from the settlement prices of first contract month and sixth contract month of Physically Delivered Futures Transaction

r<sub>2</sub>: Forward rate calculated from the settlement prices of second contract month and sixth contract month of Physically Delivered Futures Transaction

F<sub>1</sub>: Settlement price of the first contract month of Physically Delivered Futures Transaction

F<sub>2</sub>: Settlement price of the second contract month of Physically Delivered Futures Transaction

F<sub>6</sub>: Settlement price of the sixth contract month of Physically Delivered Futures Transaction

t<sub>1-6</sub>: Number of days between the last trading days of the first and the sixth contract month /360

t<sub>2-6</sub>: Number of days between the last trading days of the second and the sixth contract month /360

e: Base of Natural Logarithm

t<sub>0-1</sub>: Number of days between the trading day and the last trading day of the first contract month /360

t<sub>0-2</sub>: Number of days between the trading day and the last trading day of the second contract month /360

**Article 4 (Revision or Abolition)**

Revision or abolition to these Detailed Rules shall be approved by the President & CEO.

**Supplementary Provisions**

These Detailed Rules shall be in effect as of May 7, 2015.

**Supplementary Provisions**

The revisions to the name of this Detailed Rules and to Article 1 (Objective), Article 2 (Definitions of Theoretical Spot Price) and Article 3 (Calculation of Theoretical Spot Price) shall be in effect as of March 21, 2017.