

Options Transactions Detailed Rules

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Article 1 (Purpose)

1. These Rules shall, based on the provisions of Article 3.3 of the Market Rules, prescribe matters necessary for the handling of Options Transactions.

Article 2 (Strike Price Interval)

1. The strike price interval shall be as follows; provided, however, that the Exchange may change it where it is deemed necessary.

Precious Metals Market (Gold): 50 yen

Article 3 (Method for Setting Up Strike Prices)

1. The "manner prescribed in the Options Transactions Detailed Rules" referred to in Article 13.2 of the Market Rules shall be as follows:
 - (1) The Center Strike Price of options shall be determined, on each business day, to be the number that is nearest to the settlement price on the previous business day of the contract month for the options' underlying Physically Delivered Futures Contracts, provided that said number is an integral multiple of the strike price interval prescribed in the preceding paragraph (if there are two (2) numbers that equally satisfy the requirement, the lower of the two (2) shall be the Center Strike Price);
 - (2) On the First Trading Day of a new Contract Month for each Options Contract, eleven (11) strike prices shall be created such that there are five (5) strike prices below and above the Center Strike Price, arranged in an interval of the Strike Price Interval, and trading based on these strike prices shall start from the Day Session on said day; and
 - (3) On each business day, eleven (11) strike prices shall be calculated, five (5) strike prices below and above the Center Strike Price arranged in an interval of the Strike Price Interval, for each Contract Month. If, as a result, there are numbers other than existing strike prices, such numbers shall be created as additional strike prices, and trading based on these strike prices shall start from the following Day Session. However, no additional strike prices shall be created based on the Settlement Price on or after the day that is six (6) days prior to the Last Trading Day.
2. Notwithstanding the provisions of the preceding paragraph, where it is deemed necessary, the Exchange may change the number of the strike prices to be created, or create new strike prices with respect to all or some of the Contract Months.

Article 4 (Method for Determining Settlement Price)

1. The Settlement Price of Options 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; provided, however, that any resulting fractions less than the Price Increment shall be rounded off and if it yields zero (0), the price shall be deemed to be the Price Increment:

$$C = e^{-rt} [FN(d) - KN(d - \sigma\sqrt{t})]$$

$$P = C - e^{-rt} (F - K)$$

where d is calculated in accordance with the following formula:

$$d = [\ln(F/K) + \sigma^2 t/2] / \sigma\sqrt{t}$$

(Note) The meaning of each of the symbols used in the above formula is as follows:

C: Call option

P: Put option

F: Settlement Price of the Contract Month for the options' underlying Futures Contracts

e: The base of natural logarithms
t: The number of days until the Last Trading Day / 365
K: Strike price
 σ : Volatility calculated in accordance with the following article for each Option Series divided by 100
r: Short-term prime rate
N(x): Cumulative density of the normal distribution for a value x
ln: Natural logarithms

Article 5 (Volatility)

1. The volatility prescribed in the preceding article shall be the implied volatility ("IV"), calculated daily based on the last execution price of each Option Series on that day. However, for Option Series with no last execution price, or where the last execution price is lower than the intrinsic value of the option, volatility shall be determined for each Contract Month in a manner prescribed in the following paragraph:
2. For Option Series for which the IV cannot be calculated, the volatility shall be calculated as follows:
 - (1) The volatility of the Option Series for which the IV cannot be calculated, a weighted average (based on the trading volume of the Option Series) of IV of all Option Series of each Contract Month that the IV can be calculated ("AV") shall be calculated; and
 - (2) If, for each Contract Month, there are less than five (5) Option Series for which the IV can be calculated as a total of put options and call options, the AV for the day shall be the AV on the previous business day of said Contract Month; provided, however, that for a new Contract Month, the AV for the day shall be the AV of the nearest Contract Month of said day.

Article 6 (Record of Investigation on Exercise)

1. Where it is deemed necessary, the Exchange may require Members, customers, etc. and certain other parties to submit a statement of reason and other record of investigation with respect to exercise.

Article 7 (Revision or Abolition)

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

Supplementary Provisions

These Rules shall be in effect as of December 1, 2008.

Supplementary Provisions

Revisions in Article 1 (Purpose), Article 3 (Method for Setting Up Strike Prices), and Article 4 (Method for Determining Settlement Price) as well as deletions of Article 4 (Deletions of Options Series), Article 7 (First Base Value of Newly Create Option Series), and Article 8 (Method for Allotment of Exercise) shall be in effect as of May 7, 2009.