

Revision to Itayose condition for determination of contract price (1)

Cond.	Current	After revision
1	The price where bids and offers match, <u>at which there are limit orders on either the buy or sell side.</u>	The price where bids and offers match <u>that is between one tick above the highest bid price and one tick below the lowest offer price</u> ^{*1} .
2	In the case where there are two or more prices that meet Condition 1, the price at which there will be maximum traded volume.	Same as at left
3	In the case where there are two or more prices that meet Condition 2, the price at which the difference between the cumulative volume of sell orders and the cumulative volume of buy orders (hereinafter referred to as "imbalance") is the smallest.	Same as at left
4	In the case where there are two or more prices that meet Condition 3, one of the following prices: (1) In the case where all imbalances are on the sell side, the lowest among such prices; (2) In the case where all imbalances are on the buy side, the highest among such prices; or (3) Otherwise, the price in Condition 5.	Same as at left
5	One of the following prices: (1) In the case where the highest price among the prices at which the imbalance (if there are several prices at which there are imbalances on both sell and buy sides, it shall be limited to the lowest price among the prices at which there are sell-side imbalances and the highest price among the prices at which there are buy-side imbalances; the same shall apply hereinafter) is smallest is lower than the Reference Price, such highest price; (2) In the case where the Reference Price falls within the range of the prices at	Same as at left

	which the imbalance is smallest, the Reference Price*2 ; or (3) In the case where the lowest price, among the prices at which the imbalance is smallest, is higher than the Reference Price, such lowest price.	
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*1 This executable price range may exceed the range defined by the price limits on bids/offers.

*2 "Reference Price" shall be determined as follows:

(1) The last contract price on the trading day;

(2) In the case where the price described in (1) is not available, the reference price for the price limits on bids/offers on the trading day.

Revision to Itayose condition for determination of contract price (2)

Case: Contract price is determined at one tick below the lower price limit on bids/offers

Before Itayose	Sum(A)	Sell	Price	Buy	Sum(B)	Execution	Imbalance
	30	30	MO				
	:		:				
	30		20,030		0	0	30
	30		20,020		0	0	30
	30		20,010	10	10	10	20
	30		20,000	10	20	20	10
	30		19,990		20	20	10
*Lower price limit on bids/offers is JPY 20,000.							
After Itayose	Current			After revision			
	Sell	Price	Buy	Sell	Price	Buy	
		MO			MO		
		:			:		
		20,030			20,030		
		20,020			20,020		
		20,010			20,010		
		20,000			20,000		
					19,990		
Result	Of the prices at which limit orders are placed, execution occurs at JPY 20,000 with maximum traded volume (Condition 2).			<u>Due to the revision to Condition 1, JPY 20,020 and JPY 19,990 are added as candidate prices.</u> <u>Execution occurs at JPY 19,990 based on Condition 4 (1).</u>			

Case: Contract price is determined at one tick above the upper price limit on bids/offers

Before Itayose	Sum(A)	Sell	Price	Buy	Sum(B)	Execution	Imbalance
			MO	30	30		
	20		20,010		30	20	10
	20	10	20,000	1	31	20	11
	10	10	19,990		31	10	21
	0		19,980		31	0	31
	0		19,970		31	0	31
		:		:	:	:	:
*Upper price limit on bids/offers is JPY 20,000.							
After Itayose	Current			After revision			
	Sell	Price	Buy	Sell	Price	Buy	
		MO			MO		
					20,010		
		20,000			20,000		
		19,990			19,990		
		19,980			19,980		
		19,970			19,970		
		:			:		
Result	Of the prices at which limit orders are placed, execution occurs at JPY 20,000 with maximum traded volume (Condition 2).			<u>Due to the revision to Condition 1, JPY 20,010 and JPY 19,980 are added as candidate prices.</u> <u>Execution occurs at JPY 20,010 based on Condition 3.</u>			

Revision to Itayose condition for determination of contract price (3)

Case: Execution occurs at a price without a limit order

Before Itayose	Sum(A)	Sell	Price	Buy	Sum(B)	Execution	Imbalance
		10	MO				
	:		:		:	:	:
	10		20,040		0	0	10
	10		20,030	10	10	10	0
	10		20,020		10	10	0
	10		20,010	10	20	10	10
	10		20,000		20	10	10
	10		19,990		20	10	10
	:		:		:	:	:
*Reference price is JPY 19,990.							
After Itayose	Current			After revision			
	Sell	Price	Buy	Sell	Price	Buy	
		MO			MO		
		:			:		
		20,040			20,040		
		20,030			20,030		
		20,020			20,020		
		20,010			20,010		
		20,000			20,000		
		19,990			19,990		
	:			:			
Result	Both JPY 20,010 and JPY 20,030 satisfy Condition 1. Execution occurs at JPY 20,030 based on Condition 3.				Due to the revision to Condition 1, prices from JPY 20,000 to JPY 20,040 are candidate prices. Execution occurs at JPY 20,020 based on Condition 5 (3).		

Comparison of behavior of Market to Limit Order before and after revision (1)

	[Case 1]			[Case 2]			[Case 3]		
	Sell/Buy : Sell Price : — Quantity : 15 units Conditions : FAS			Sell/Buy : Sell Price : — Quantity : 15 units Conditions : FAS			Sell/Buy : Sell Price : — Quantity : 15 units Conditions : FAS		
	Sell	Zaraba	Buy	Sell	Zaraba	Buy	Sell	Zaraba	Buy
		:			:			:	
		20,020			20,020			20,020	
MLO→		20,010	10	10	20,010			20,010	
15 units		20,000			20,000			20,000	
		19,990			19,990			19,990	
		:			:			:	
		↓			↓			↓	

Current									
	Sell	Zaraba	Buy	Sell	Zaraba	Buy	Sell	Zaraba	Buy
		:			:			:	
		20,020			20,020			20,020	
	5	20,010		10	20,010			20,010	
		20,000		15	20,000			20,000	
		19,990			19,990			19,990	
		:			:			:	
		↓			↓			↓	
	[Result]			[Result]			[Result]		
	10 units are executed at JPY 20,010 and unfilled 5 units remain at the price in the order book.			Since there are no bids, the order remains in the order book as a limit order at JPY 20,000, which is now the best offer by 1 tick.			All units are cancelled, because there are neither bids nor offers.		

After revision									
	Sell	Zaraba	Buy	Sell	Zaraba	Buy	Sell	Zaraba	Buy
		:			:			:	
		20,020			20,020			20,020	
	5	20,010		10	20,010			20,010	
		20,000			20,000			20,000	
		19,990			19,990			19,990	
		:			:			:	
		↓			↓			↓	
	[Result]			[Result]			[Result]		
	Same as current.			All units are cancelled, because there are no bids.			Same as current.		

Comparison of behavior of Market to Limit Order before and after revision (2)

[Case 4]			[Case 5]			[Case 6]		
Sell/Buy : Buy			Sell/Buy : Buy			Sell/Buy : Buy		
Price : —			Price : —			Price : —		
Quantity : 15 units			Quantity : 15 units			Quantity : 15 units		
Conditions : FAS			Conditions : FAS			Conditions : FAS		
Sell	Zaraba	Buy	Sell	Zaraba	Buy	Sell	Zaraba	Buy
:	:	:	:	:	:	:	:	:
	20,020			20,020			20,020	
10	20,010			20,010			20,010	
	20,000	←MLO 15 units		20,000	10 ←MLO 15 units		20,000	←MLO 15 units
	19,990			19,990			19,990	
	:			:			:	

Current								
Sell	Zaraba	Buy	Sell	Zaraba	Buy	Sell	Zaraba	Buy
:	:	:	:	:	:	:	:	:
	20,020			20,020			20,020	
	20,010	5		20,010	15		20,010	
	20,000			20,000	10		20,000	
	19,990			19,990			19,990	
	:			:			:	
[Result]			[Result]			[Result]		
10 units are executed at JPY 20,010 and the unfilled 5 units remain at the price in the order book.			Since there are no bids, the order remains in the order book as a limit order at JPY 20,010, which is the best bid by 1 tick.			All units are cancelled, because there are neither bids nor offers.		

After revision								
Sell	Zaraba	Buy	Sell	Zaraba	Buy	Sell	Zaraba	Buy
:	:	:	:	:	:	:	:	:
	20,020			20,020			20,020	
	20,010	5		20,010			20,010	
	20,000			20,000	10		20,000	
	19,990			19,990			19,990	
	:			:			:	
[Result]			[Result]			[Result]		
Same as current.			All units are cancelled, because there are no offers.			Same as current.		

Revision to price limits on bids/offers for index options

Item	Current	After revision
<p>Reference price for calculating range for price limit on bids/offers</p>	<p><input type="radio"/> A value obtained by using reference prices of price limits on bids/offers from a recent time period(*).</p> <p>(*) The average value of the reference prices for the price limits on bids/offers on each trading day with regards to the leading contract month on each underlying index for 20 days counting from the trading day that ends 25 business days prior to the trading days that end on the days listed in the following (a) through (d) (or the following business day, if it falls on a non-business day).</p> <p>(a) March 1 (b) June 1 (c) September 1 (d) December 1</p>	<p><input type="radio"/> Same as at left</p>
<p>Price limits on bids/offers</p>	<p><input type="radio"/> The upper price limit on bids/offers is at the reference price plus the value below, and the lower price limit on bids/offers is at the reference price less the value below.</p> <p><input type="radio"/> The normal price range is the value(*) that is 11% from the reference price for calculating the price limit on bids/offers range. For the 1st Expansion range, it shall be 14%(*), and for the 2nd Expansion range, 17%(*).</p>	<p><input type="radio"/> Same as at left</p> <p><input type="radio"/> Same as at left</p> <p><input type="radio"/> In the case where the reference price falls within the tables below, the corresponding factors will be applied to obtain the price ranges.</p>

	<p>(*) Round down to the nearest 10 yen for Nikkei 225 Options, and to the nearest 0.5pts. for TOPIX Options.</p>	<p><Nikkei 225 Options></p> <table border="1"> <thead> <tr> <th>Ref. price</th> <th>Normal</th> <th>1st Expansion</th> <th>2nd Expansion</th> </tr> </thead> <tbody> <tr> <td>Up to ¥50</td> <td>4%</td> <td>7%</td> <td>10%</td> </tr> <tr> <td>¥50 or more, but less than ¥200</td> <td>6%</td> <td>9%</td> <td>12%</td> </tr> <tr> <td>¥200 or more but less than ¥500</td> <td>8%</td> <td>11%</td> <td>14%</td> </tr> </tbody> </table> <p><TOPIX Options></p> <table border="1"> <thead> <tr> <th>Ref. price</th> <th>Normal</th> <th>1st Expansion</th> <th>2nd Expansion</th> </tr> </thead> <tbody> <tr> <td>Up to 5pts.</td> <td>4%</td> <td>7%</td> <td>10%</td> </tr> <tr> <td>5pts. or more but less than 20pts.</td> <td>6%</td> <td>9%</td> <td>12%</td> </tr> <tr> <td>20pts. or more but less than 50pts.</td> <td>8%</td> <td>11%</td> <td>14%</td> </tr> </tbody> </table>	Ref. price	Normal	1st Expansion	2nd Expansion	Up to ¥50	4%	7%	10%	¥50 or more, but less than ¥200	6%	9%	12%	¥200 or more but less than ¥500	8%	11%	14%	Ref. price	Normal	1st Expansion	2nd Expansion	Up to 5pts.	4%	7%	10%	5pts. or more but less than 20pts.	6%	9%	12%	20pts. or more but less than 50pts.	8%	11%	14%
Ref. price	Normal	1st Expansion	2nd Expansion																															
Up to ¥50	4%	7%	10%																															
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Revision to implied function in continuous matching

Strategy Order Book					Leg Order Book										
Options on JGB Futures (Buy Put & Buy Call)					Put Options on JGB Futures					Call Options on JGB Futures					
①	(timestamp)	Sell	Zaraba	Buy	(timestamp)	(timestamp)	Sell	Zaraba	Buy	(timestamp)	Current (timestamp) Sell Zaraba Buy (timestamp) MO : (12:50) 10 0.11 (12:40) 10 0.10 : 0.09 :				
	(12:40)	10	0.40			(12:40)	10	0.30	10	(9:00)	* Implied order (red) is generated due to the incoming strategy trading order. * The timestamp of the implied order is the same as the strategy trading order.				
											After revision Same as current.				
②	(timestamp)	Sell	Zaraba	Buy	(timestamp)	(timestamp)	Sell	Zaraba	Buy	(timestamp)	Current (timestamp) Sell Zaraba Buy (timestamp) MO : (12:50) 10 } 0.11 (12:40) 10 } (12:40) 10 } 0.10 : 0.09 :				
	(12:40)	10	0.40			(12:40)	10	0.30	10	(9:00)	* Implied order is re-generated due to the order amendment in the put order book. * The timestamp of the re-generated implied order is the same as the strategy trading order (12:40).				
						* The price of the existing buy order for 10 units is amended from 0.30 to 0.29 at 13:00.					After revision (timestamp) Sell Zaraba Buy (timestamp) MO : (12:50) 10 } 0.11 (13:00) 10 } (12:40) 10 } 0.10 : 0.09 :				
③											Current (timestamp) Sell Zaraba Buy (timestamp) MO : (12:50) 10 } 0.11 (12:40) 10 } (12:40) 10 } 0.10 : 0.09 :				
	(12:40)	10	0.40			(12:40)	10	0.30	10	(13:00)	* New buy order for 10 units at 0.11 arrives in the call order book. * This buy order is matched, and the implied sell order is matched based on time priority. * At the same time, the buy order in the put order book and the sell order in the strategy order book are matched due to the implied function.				
											After revision (timestamp) Sell Zaraba Buy (timestamp) MO : (12:50) 10 } 0.11 (13:00) 10 } (12:40) 10 } 0.10 : 0.09 :				
										* New buy order for 10 units at 0.11 arrives in the call order book. * This buy order is matched, and the sell order (not implied sell order) is matched based on time priority. * Since the implied order remains, no matching occurs on the put order book and the strategy order book.					