## **Outline of Specifications for Japanese Government Bond Futures**

As of November 21, 2022 Osaka Exchange, Inc.

Item	Details	Remarks
I. Outline of Trading  1. Products Available for Trading	<ul> <li>The following Japanese government bond (JGB) futures whose underliers are either standardized JGBs or their price shall be available for trading.</li> <li>a. Physically delivered futures         <ul> <li>(a) JGB futures whose underlier is a standardized medium-term (5-year) JGB (face value of JPY 100, 3% interest rate, and 5-year maturity) (hereinafter referred to as "5-year JGB Futures")</li> <li>(b) JGB futures whose underlier is a standardized long-term (10-year) JGB (face value of JPY 100, 6% interest rate, and 10-year maturity) (hereinafter referred to as "10-year JGB Futures")</li> <li>(c) JGB futures whose underlier is a standardized super long-term (20-year) JGB (face value of JPY 100, 3% interest rate, and 20-year maturity) (hereinafter referred to as "20-year JGB Futures")</li> <li>b. Cash-settled futures</li> <li>JGB futures whose underlier is the price of the standardized long-term (10-year) JGB (hereinafter referred to as "mini 10-year JGB Futures")</li> </ul> </li> </ul>	
2. Trading Sessions (1) Trading Sessions and Hours	<ul> <li>Morning session</li> <li>→ Opening auction: 8:45 a.m.</li> <li>→ Regular session: 8:45 a.m 11:00 a.m.</li> <li>→ Closing auction: 11:02 a.m.</li> <li>- Afternoon session</li> <li>→ Opening auction: 12:30 p.m.</li> <li>→ Regular session: 12:30 p.m 3:00 p.m.</li> <li>→ Closing auction: 3:02 p.m.</li> <li>- Night session</li> <li>→ Opening auction: 3:30 p.m.</li> <li>→ Regular session: 3:30 p.m. to 5:55 a.m. the next day</li> </ul>	<ul> <li>Osaka Exchange, Inc.         (OSE) may temporarily         change trading hours         when necessary.</li> </ul>
(2) Venue of Trading Sessions	<ul> <li>Closing auction: 6:00 a.m. the next day</li> <li>Trading shall be conducted through the trading system.</li> </ul>	
3. Contracts and Number Thereof	<ul> <li>JGB futures trading shall be conducted by dividing it into contracts whose last trading days are the trading days listed below.</li> <li>a. Physically delivered futures</li> <li>The last trading day shall be the trading day that</li> </ul>	<ul> <li>For JGB futures, a trading day is defined as one cycle from 3:25 p.m. to 3:15 p.m. the next business day.</li> </ul>

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	ends five business days before the delivery day. The delivery day shall be the 20th of March, June, September, and December (or one business day later if the 20th falls on a non-business day).  b. Cash-settled futures  The last trading day shall be the trading day that ends one business day before the last trading days of the March, June, September, and December physically delivered futures.	<ul> <li>OSE may change the number, trading period, initial trading day, and last trading day of contracts when necessary.</li> </ul>
	<ul> <li>Three contracts of each physically delivered future and cash-settled future shall be available for trading. The trading period of each contract shall be nine months.</li> </ul>	
	<ul> <li>Trading of a new physically delivered futures contract shall start from the morning session of the trading day after the last trading day of the most recently expired contract.</li> </ul>	
	<ul> <li>Trading of a new cash-settled futures contract shall start from the morning session of the second trading day after the last trading day of the most recently expired contract.</li> </ul>	
4. Trading Method	Trading shall be conducted by individual auction.	
5. Contract Units, Orders, and Price Limits		
(1) Contract Units	<ul> <li>a. Physically delivered futures</li> <li>(a) 5-year JGB Futures/10-year JGB Futures</li> <li>One contract unit shall have a face value of JPY 100 million.</li> <li>(b) 20-year JGB Futures</li> </ul>	
	One contract unit shall have a face value of JPY 10 million.	
	b. Cash-settled futures (mini 10-year JGB Futures) One contract unit shall be the amount obtained by multiplying JPY 100,000 by the price of the standardized long-term (10-year) JGB.	
(2) Orders	<ul> <li>Trading participants may submit market orders and limit orders.</li> </ul>	<ul> <li>Orders of physically delivered JGB futures shall be without accrued interest.</li> </ul>
	<ul> <li>Orders (bids and offers) must be made with one of the conditions for validity period or execution volume listed below.</li> <li>a. Good for Day (GFD)         A condition that causes orders made during a particular morning or afternoon session to expire at the end of said afternoon session and those made during a particular night session to expire at the end of said night session.     </li> <li>b. Good Till Date/Good Till Cancel (GTD/GTC)         A condition under which orders are valid until the end     </li> </ul>	<ul> <li>Conditions for validity period may not be specified for market orders.</li> </ul>

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	of the afternoon session on the last day (or one business day earlier if the last day is a non-business day) of a period specified by the trading participant within a period separately specified by OSE (GTD) or until the order is cancelled (GTC).  c. Fill and Kill (FAK)  A condition which, if an entire order cannot be filled immediately, causes the amount that can be filled immediately to be filled, and the rest to be cancelled.  d. Fill or Kill (FOK)  A condition which, if an entire order cannot be filled immediately, causes it to be cancelled.  Validity of orders shall be in accordance with the above conditions.	<ul> <li>A trading participant may not make orders with the Fill or Kill condition in the opening auction or the closing auction.</li> </ul>
(3) Tick Size	<ul> <li>The tick sizes for JGB futures shall be as follows.</li> <li>a. Physically delivered futures</li> <li>JPY 0.01 per face value of JPY 100</li> <li>b. Cash-settled futures (mini 10-year JGB Futures)</li> <li>JPY 0.005</li> </ul>	
(4) Price Limits	<ul> <li>Orders may not exceed the designated price fluctuation range .</li> </ul>	
	<ul> <li>The lower limit of the price fluctuation range shall be obtained by subtracting the price limit from the reference price, and the upper limit shall be obtained by adding the price limit to the reference price.</li> <li>Price limits shall be as follows.</li> </ul>	<ul> <li>As a general rule, the reference price shall be the settlement price (i.e., the price specified by Japan Securities Clearing Corporation (JSCC) as the</li> </ul>
	a. Physically delivered futures  (a) 5-year JGB Futures/10-year JGB Futures  JPY 2  (b) 20-year JGB Futures  JPY 4	settlement price; the same shall apply hereinafter) on the previous trading day.
	b. Cash-settled futures (mini 10-year JGB Futures) JPY 2	
	<ul> <li>For details on the expansion of upper or lower price limits on orders due to the triggering of the Static Circuit Breaker and other related matters, please refer to the "Static Circuit Breaker Rules" document.</li> </ul>	
	<ul> <li>OSE may change the price limits on orders if necessary.</li> </ul>	
6. Temporary Trading Halts		
(1) Static Circuit Breaker (SCB)	<ul> <li>As a general rule, OSE will temporarily halt trading (including strategy trading and J-NET trading) when the price of a JGB future's lead contract rises or falls significantly (this is hereinafter referred to as the "Static Circuit Breaker (SCB)").</li> </ul>	<ul> <li>For 10-year JGB Futures, the lead contract is the most actively traded contract in the trading sessions on the previous trading day. For 5-year</li> </ul>
	<ul> <li>When the Static Circuit Breaker is triggered, the price limits on orders of JGB futures with the same underlier</li> </ul>	JGB Futures and 20-year JGB Futures, it is the

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	as the lead contract will be expanded as specified by OSE.						nearest contract.		
	<ul> <li>For details on other related matters, please refer to the "Static Circuit Breaker Rules" document.</li> </ul>								
(2) Immediately Executable Price Range (Dynamic Circuit Breaker)	<ul> <li>When a trade for a JGB futures contract is to be executed outside the designated price fluctuation range around a designated reference price, OSE shall temporarily halt trading (including strategy trading) for said contract for an appropriate period. (This is called the Dynamic Circuit Breaker (DCB), and the designated reference price is called the "DCB Reference Price".)</li> </ul>				_	The "appropriate period" shall be 30 seconds, as a general rule.			
	"DCB Price	luctuation ra Range") and all be as follo	d DCB Refe			_	<ul> <li>When OSE deems it appropriate in light of the trading status, the DCB Reference Price shall be a</li> </ul>		
	Product	DCB Reference	DCI	3 Price Rar	nge		price specified by OSE on a case-by-case basis.		
		Price	Opening Auction	Regular Session	Closing Auction				
	5-year JGB Futures		±JPY 0.3	±JP\ ±JPY	/ 0.1 ±JPY	_	"BBO mid-price" is		
	10-year JGB Futures	BBO mid-		0.1	0.15		defined as the mid-price of the last best bid and offer.		
	20-year JGB Futures	price or Last Price		±JPY 0.9		_	"Last Price" is defined as		
	mini 10- year JGB Futures		±JPY 0.3	±JPY 0.1	±JPY 0.15		the last traded price of the trading session (excluding strategy trades).		
7. Physical Delivery/Cash Settlement (1) Delivery of Physically Delivered Futures (a) Delivery	- When offs	otting trades	are not eve	cutod for s	a physically				
(a) Delivery	<ul> <li>When offsetting trades are not executed for a physically delivered futures contract by the last trading day, the remaining positions shall be settled by the delivery of JGBs in exchange for the receipt of the delivery payment on the contract's delivery day.</li> </ul>								
(b) Deliverable Bonds	<ul> <li>The following JGBs (hereinafter referred to as the "deliverable bonds") shall be treated as deliverable grade.</li> <li>a. Standardized medium-term (5-year) JGB         Interest-bearing JGBs that meet the following conditions: (i) remaining maturity of at least four years but less than five years and three months from the issue date, (ii) remaining maturity of at least four years but less than five years and three months from the     </li> </ul>								

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	delivery day, (iii) issue month is at least three months before the delivery month  b. Standardized long-term (10-year) JGB Interest-bearing JGBs that meet the following conditions: (i) remaining maturity of at least seven years but less than 11 years from the issue date, (ii) remaining maturity of at least seven years but less than 11 years from the delivery day, (iii) issue month is at least three months before the delivery month  c. Standardized super long-term (20-year) JGB Interest-bearing JGBs that meet the following conditions: (i) remaining maturity of at least 19 years and three months but less than 21 years from the issue date, (ii) remaining maturity of at least 19 years and three months but less than 21 years from the delivery day, (iii) issue month is at least four months before the delivery month	
(c) Delivery Payment	<ul> <li>The delivery payment shall be calculated by taking the amount obtained by multiplying the delivery price by the conversion factor between the standardized JGB and the deliverable bonds and multiplying it by 1/100 of the total face value of said deliverable bonds.</li> <li>The delivery price shall be the settlement price of said contract on the last trading day.</li> </ul>	
	<ul> <li>Conversion factors shall be computed in accordance with the attached "Formula for the Computation of the Conversion Factor between Standardized and Deliverable Japanese Government Bonds."</li> </ul>	
(d) Accrued Interest	<ul> <li>On delivery, accrued interest shall be added to the delivery payment. Accrued interest shall be calculated by multiplying the day count up to the delivery day by the daily interest rate (i.e., the annual interest rate divided by the number of days in a year) and face value of the deliverable bonds in the final short position (i.e., a short position that was not offset by the last trading day).</li> </ul>	
	<ul> <li>However, when the delivery day falls on the interest payment date of the deliverable bonds, no accrued interest shall be added.</li> </ul>	
(2) Final Settlement for Cash-Settled Futures	<ul> <li>When offsetting trades are not executed for a cash- settled future by the last trading day, the remaining positions shall be settled at the final settlement price on the business day after the final settlement price is determined (hereinafter referred to as the "final settlement day").</li> </ul>	
	<ul> <li>The final settlement price shall be determined on the business day after the last trading day of the cash- settled future and shall be the opening price of the 10- year JGB Future with the same contract month as the</li> </ul>	

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	cash-settled future.	
8. Restrictions on Trading	<ul> <li>When OSE deems that trading conditions are or are likely to become abnormal, it may implement the following measures against trading or accepting orders from customers.</li> <li>a. Reducing price limits</li> <li>b. Moving up the date and time for posting margin c. Increasing the margin amount</li> <li>d. Restricting the use of securities as margin e. Lowering the assessment rate of collateral securities</li> <li>f. Restricting or prohibiting JGB futures trading (e.g., prohibiting proprietary trading)</li> <li>g. Position limits</li> </ul>	
II. Strategy Trading	<ul> <li>For details, please refer to the "Outline of Strategy Trading Rules" document.</li> </ul>	
III. J-NET Trading	<ul> <li>For details, please refer to the "Outline of J-NET Trading Rules" document.</li> </ul>	
IV. Give-Ups	<ul> <li>For details, please refer to the "Outline of Give-Up Rules" document.</li> </ul>	
V. Position Transfer	<ul> <li>Trading participants may transfer unsettled positions in their proprietary and their customer accounts to other trading participants.</li> <li>Positions in contracts that have reached their last trading day may not be transferred after said last trading day.</li> <li>Positions in JGB futures shall be transferred by using the settlement price of each contract on the trading day before the day of the transfer as the contract price of the unsettled positions.</li> </ul>	- JSCC shall specify the particulars pertaining to position transfers by clearing participants (which are entities that are qualified to be counterparties in JSCC's Financial Instruments Obligation Assumption Business (such qualification is hereinafter referred to as a "clearing qualification"); the same shall apply hereinafter).
VI. Margin and Settlement	<ul> <li>For details, please refer to the "Outline of Margin and Settlement Rules for Futures and Options" document.</li> </ul>	
VII. Trading Participant Fees	<ul> <li>For details, please refer to the "Overview of Trading Participant Fees" document.</li> </ul>	
VIII. Other 1. Information     Distributed by the     Market     Information     System	<ul> <li>The following information shall be distributed by the Market Information System.</li> <li>a. Opening/High/Low/Closing (O/H/L/C) prices and tick data</li> <li>b. Trading volume and value of each contract</li> <li>c. Total trading volume and value</li> <li>d. Unsettled positions (open interest) of each contract</li> <li>e. Total open interest</li> </ul>	<ul> <li>When OSE notifies, discloses, and reports the O/H/L/C prices and trading volume of each contract pursuant to Article 130 and Article 131 of the Financial Instruments and</li> </ul>

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	f. Best quote prices and sizes g. Multiple quote prices and sizes h. Settlement prices i. Final settlement prices j. Number of executions for each contract  - The Market Information System distributes the information on O/H/L/C prices and trading volume separately for the day (i.e., morning and afternoon) and night sessions.	Exchange Act (the "Osaka Exchange Daily Report"), it shall do so on a trading day basis.
2. Disclosure of Trading by Type of Investor	<ul> <li>OSE shall disclose the weekly and monthly trading volume and value of sales and purchases by type of investor for 10-year JGB Futures and 20-year JGB Futures.</li> </ul>	
3. Reporting on the Details of Positions	<ul> <li>If the difference between the amount of short and long positions that a customer holds on the nearest contract of a physically delivered future is greater than or equal to the following designated reportable amounts for each JGB future on the following designated trading days, the details of such positions shall be reported to OSE.         <ol> <li>Designated trading days</li> <li>Before the first of the contract month of the nearest contract, the designated trading day shall be each trading day that ends on a Friday.</li> <li>From the first of the contract month of the nearest contract until the last trading day, every trading day shall be the designated trading day.</li> <li>Designated reportable amount</li> <li>5-year JGB Futures</li></ol></li></ul>	<ul> <li>Positions of JGB futures established by the exercise/assignment of options on JGB futures shall be subject to reporting effective on the exercise/assignment day.</li> </ul>
Supplementary Provisions	<ul> <li>These specifications are subject to change depending on market conditions.</li> </ul>	

## Attachment

## Formula for the Computation of the Conversion Factor between Standardized and Deliverable Japanese Government Bonds

Conversion factor 
$$= \frac{\frac{a}{x} \times \left[ (1 + \frac{x}{2})^b - 1 \right] + 100}{(1 + \frac{x}{2})^{\frac{c}{6}} \times 100} - \frac{a \times (6 - d)}{1200}$$

- a: Annual interest of the deliverable bond
- b: Number of interest payments after the deliverable bond's delivery day
- c: Remaining maturity as of the deliverable bond's delivery day
- d: Period from the deliverable bond's delivery day to the next interest payment date
- x: (i) 0.03 for the standardized medium-term (5-year) JGB
  - (ii) 0.06 for the standardized long-term (10-year) JGB
  - (iii) 0.03 for the standardized super long-term (20-year) JGB

## (Notes)

- 1. The remaining maturity as of the deliverable bond's delivery day and the period between the deliverable bond's delivery day and the next interest payment date shall be counted in units of months.
- 2. Conversion factors shall be truncated to the sixth decimal place.
- 3. Figures obtained in the calculation process shall be truncated to the tenth decimal place.
- 4. When computing conversion factors for deliverable bonds that are delivered before their first interest payment and have a remaining maturity exceeding ten (10) years (in the case of the standardized long-term (10-year) JGB) or twenty (20) years (in the case of the standardized super long-term (20-year) JGB), the following variables in the above equation shall mean the following:
- (1) b: Number of interest payments after the deliverable bond's delivery day + 1
- (2) d: (Period from the deliverable bond's delivery day to the first interest payment date 6)