

(Reference Translation)

# JPX IR Day 2019



## Derivatives Market Strategies

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### Total smart exchange

Hiromi Yamaji  
President & CEO  
Osaka Exchange, Inc.

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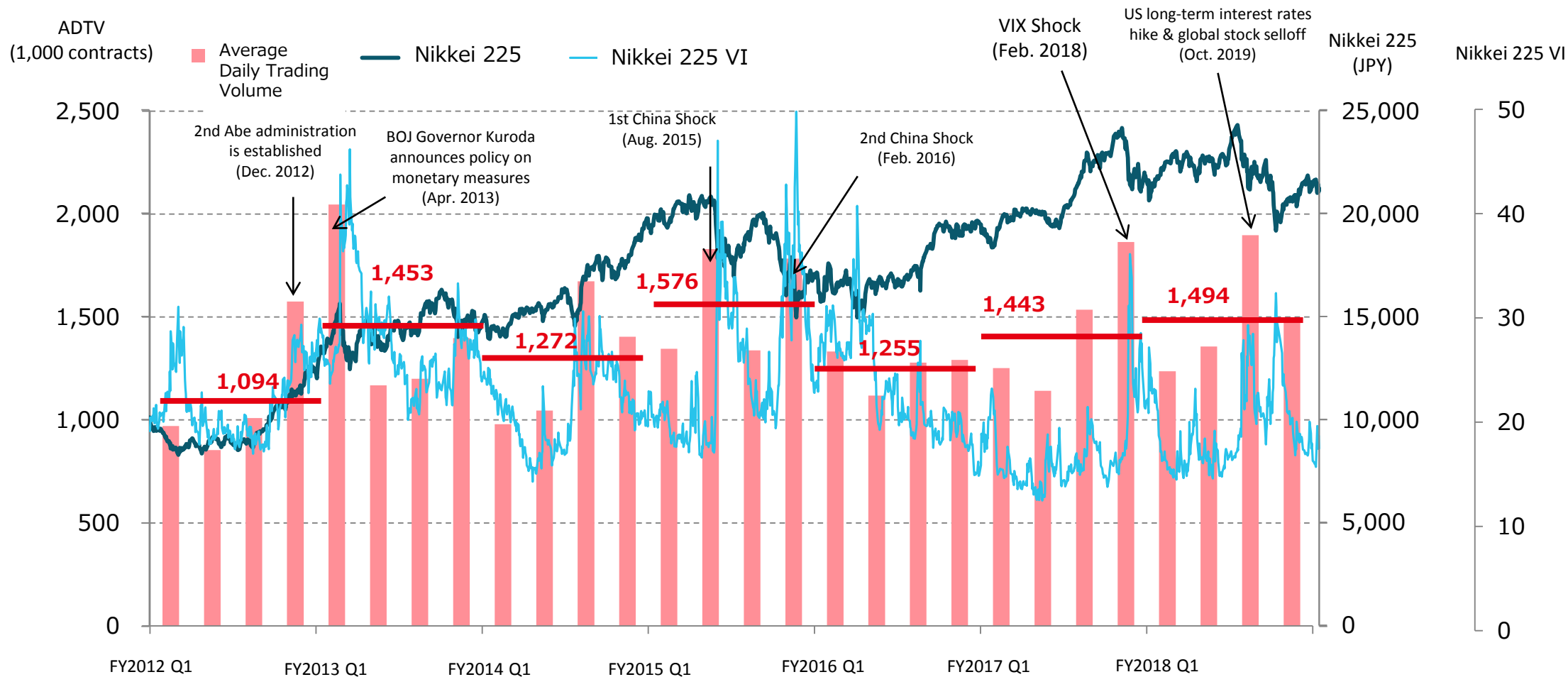
# Market Environment

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# OSE Derivatives Market – Overall Trading Volume -

- Derivatives trading volume depends largely on market conditions, with a strong correlation with volatility.
- In FY2018, volatility levels were low in H1 but rose in H2. As a result, average daily trading volume reached 1.49 million contracts, the second highest on record.



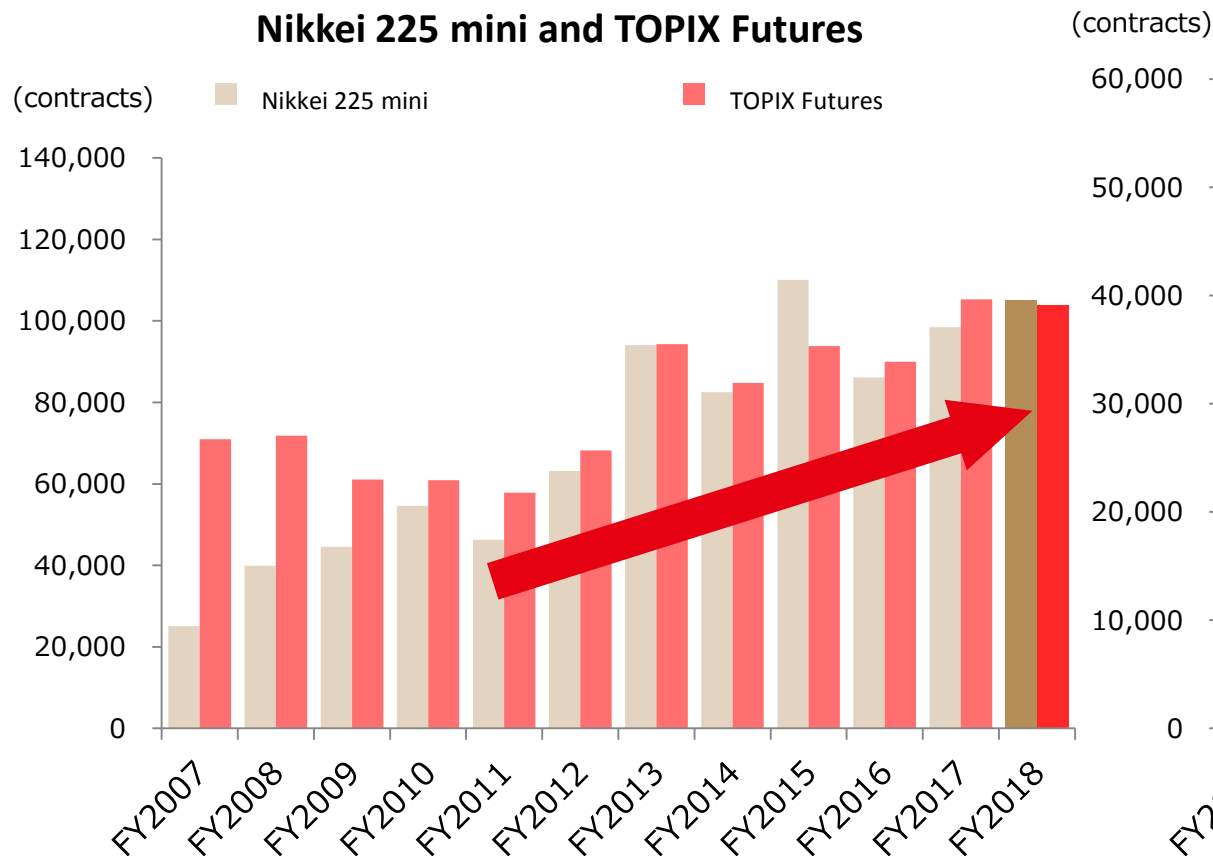
\* Trading volumes are quarterly averages. Figures for Nikkei 225 and Nikkei 225 VI are daily values. Levels indicated in the chart are average trading volumes for each quarter (unit: 1,000 contracts). Same applies for the charts in slides 4 and 5.

Source: QUICK

# OSE Derivatives Market – Trading Volumes of Main Products -

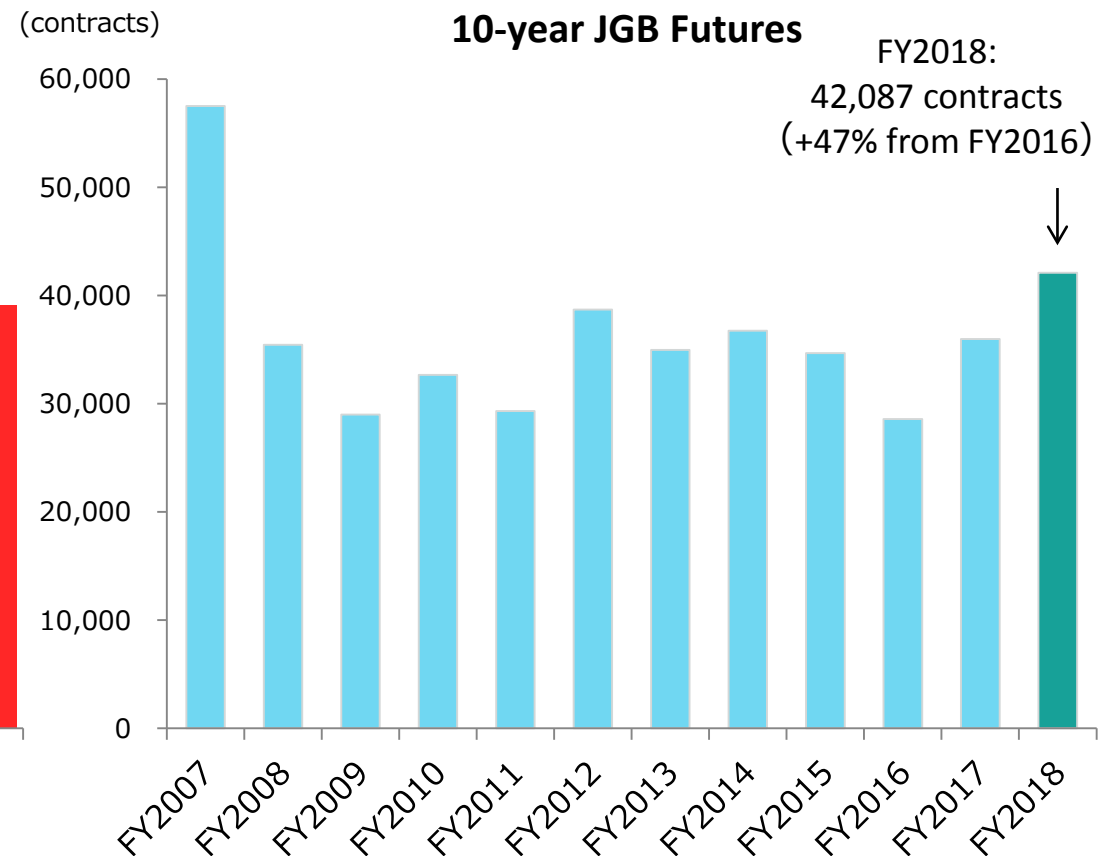
- Against a backdrop of factors such as investor base expansion due to market merger synergy, increased convenience brought by liquidity improvement, and spread of index investment, the trading volumes of Nikkei mini and TOPIX Futures both reached the 2nd highest on record.
- Trading volume of 10-year JGB Futures is on an upward trend due to factors such as emergence of new investors despite the low interest rate and low volatility environment. FY2018 saw the highest trading volume since FY2007.

Average Daily Trading Volume of  
Nikkei 225 mini and TOPIX Futures



\*Nikkei225 mini trading volumes are converted by factor of 1/10.

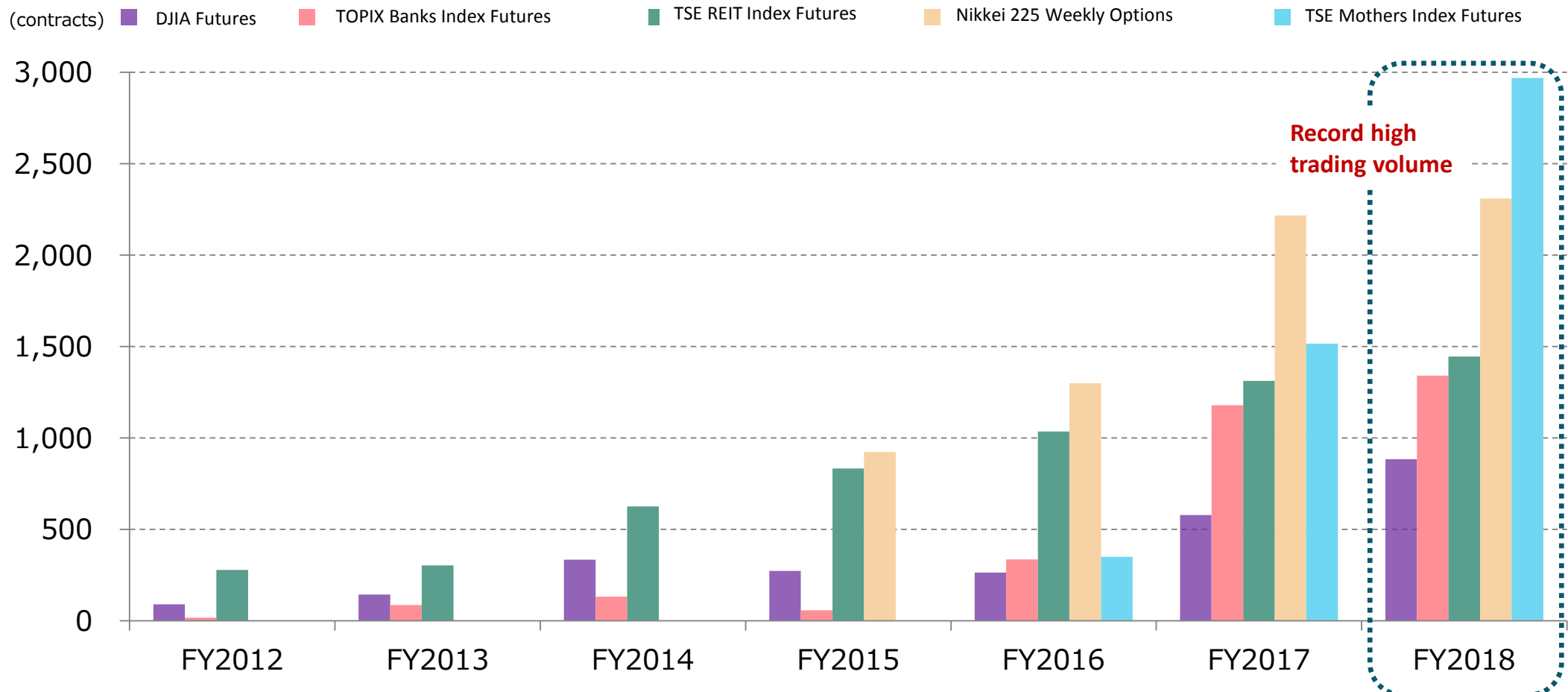
Average Daily Trading Volume of  
10-year JGB Futures



# OSE Derivatives Market – Trading Volumes of Other Products -

- OSE is also striving to increase the trading volumes of other products so as to diversify revenue sources.
- In FY2018, other than products listed in the last few years, such as Nikkei 225 Weekly Options (listed in 2015), and TSE Mothers Index Futures (listed in 2016), DJIA Futures, TOPIX Banks Index Futures, and TSE REIT Index Futures all marked record trading volumes.

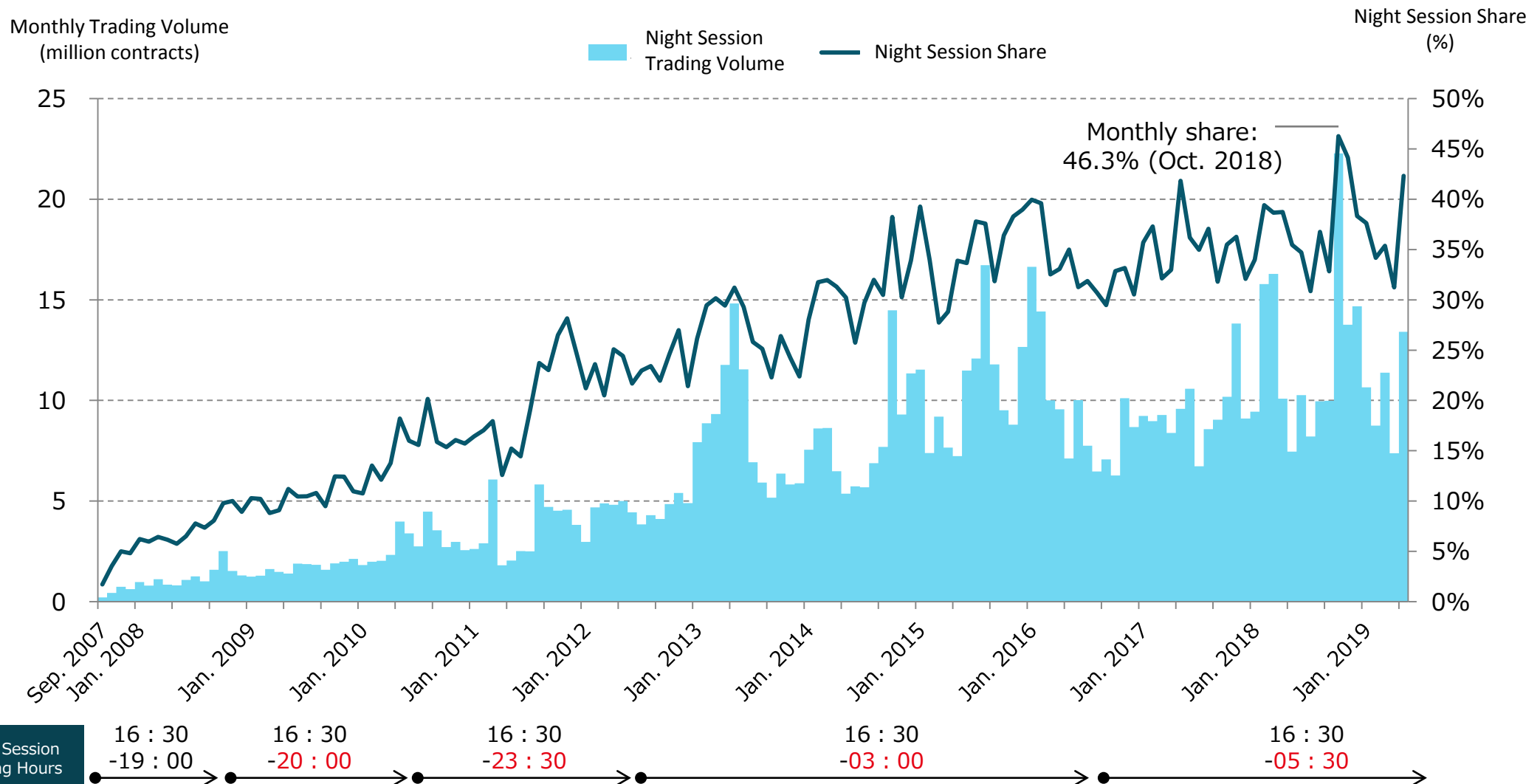
## Average Daily Trading Volume



# OSE Derivatives Market – Night Session Sees Increased Activity –

- In FY2018, the average share of night session trading volume reached a record high of 37.7%, while total night session trading volume reached 130 million contracts, the 2nd highest on record. As such, night session trading is steadily expanding.

\* In July 2016, trading hours were extended until 5:30 a.m. of the following day, creating an almost full overlap with US market hours. This enabled investors to respond immediately to global political and economic events.



# 3rd Medium-Term Management Plan

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# The Significance of Realizing a Comprehensive Exchange

- With the realization of a comprehensive exchange, JPX will renew and add depth to the commodity markets by attracting new financial players who are assured by its credibility and customer base.

## Improvement of Creditworthiness through the Business Combination

- Through the business combination with JPX, improve TOCOM's creditworthiness and secure the sustainability of Japan's commodity derivatives market.
- Through consolidating the clearing organizations, enhance the clearing function and the trustworthiness of the market.

## Fundamental Improvement of Market liquidity by Facilitating Inflows from Financial Institutions

- Increase convenience for market intermediaries and investors with trading of diversified products under unified regulatory oversight and infrastructure.
- Implement structural reform to rebuild the market with new inflows from financial institutions, such as global investors, and invigorate Japan's commodity derivatives market.

## Establishment of a Market in Japan that Supports the Business of Commercials and Business Participants

- Contribute to the stability of resource procurement and hedging operations of commercials and business participants.
- Provide spot indices to facilitate production and circulation.
- Provide leading indices and contribute to stable operations of business participants.

## Enhancement of Tokyo's Global Competitiveness and Driving Growth in Market-related Industries

- Allow the intermediary and asset management business to thrive with increased entry by new investors.
- Allow the Tokyo market to demonstrate its presence as an economic hub in Asia and a highly transparent market that is open to the world.

**The early realization of a comprehensive exchange will invigorate Japan's commodity derivatives markets, and contribute to the further development of Japanese companies and the Japanese economy.**



- A next-generation derivatives platform scheduled to launch in FY2021 will provide reliable markets based on stable and robust systems.

## Core Concept

- Priority Areas -

## "LAUNCH TIMELY"

- Swiftly roll out new products to capture demand
- Develop long-tail products to contribute to business growth

## System Objectives

### Stability

- Increase fault tolerance and system stability with simple specifications, and appropriate number of devices and hardware array

### Cost Efficiency

- Build a system that realizes high cost-effectiveness

### Determinism

- Provide fair and transparent markets to investors to fulfill responsibility as a financial instruments exchange

### Maintainability

- Pursue maintainability that can withstand extended system operations
- Achieve optimized systems and efficient operations by using automated processing and other tools

### Scalability

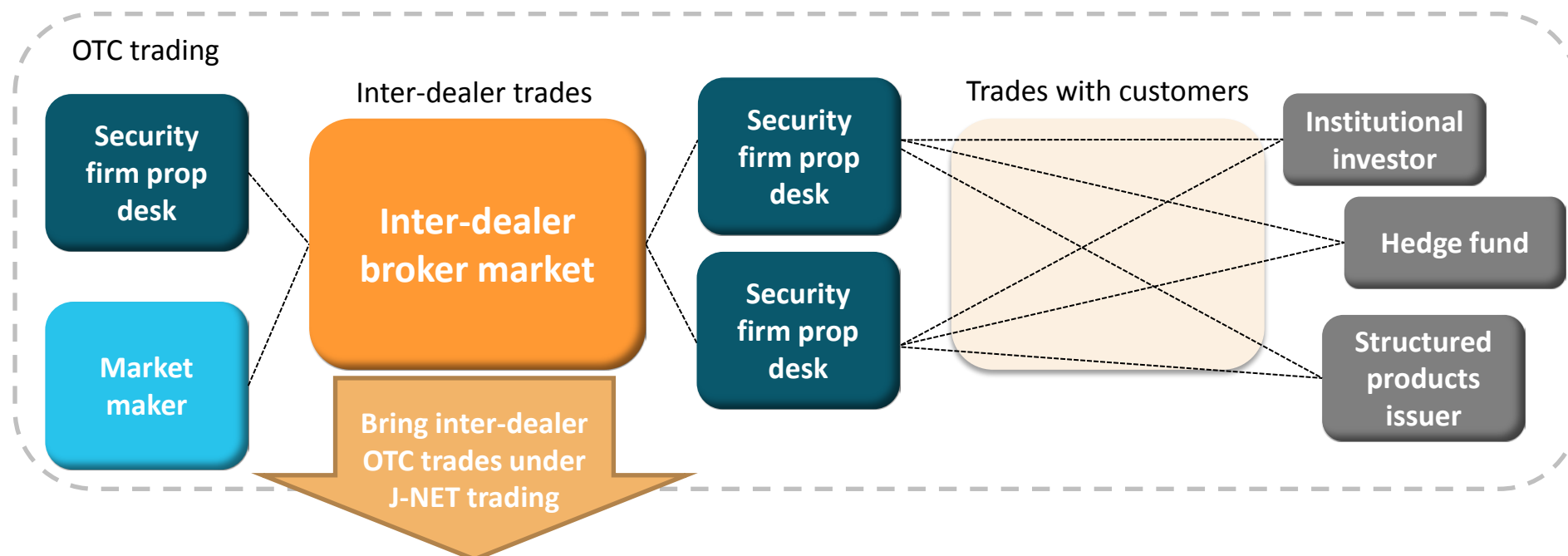
- Swiftly augment order and execution processing capability

### Sustainability

- Adopt solutions to help reduce environmental burden

# Build market platforms that adapt to market needs and external changes

- With more OTC trading being channeled onto regulated exchanges, the number of J-NET trades (off-auction) is increasing. In order to raise business efficiency and convenience of J-NET trades for trading participants, a new service “J-NET Portal” is under development (to be launched in 2019).



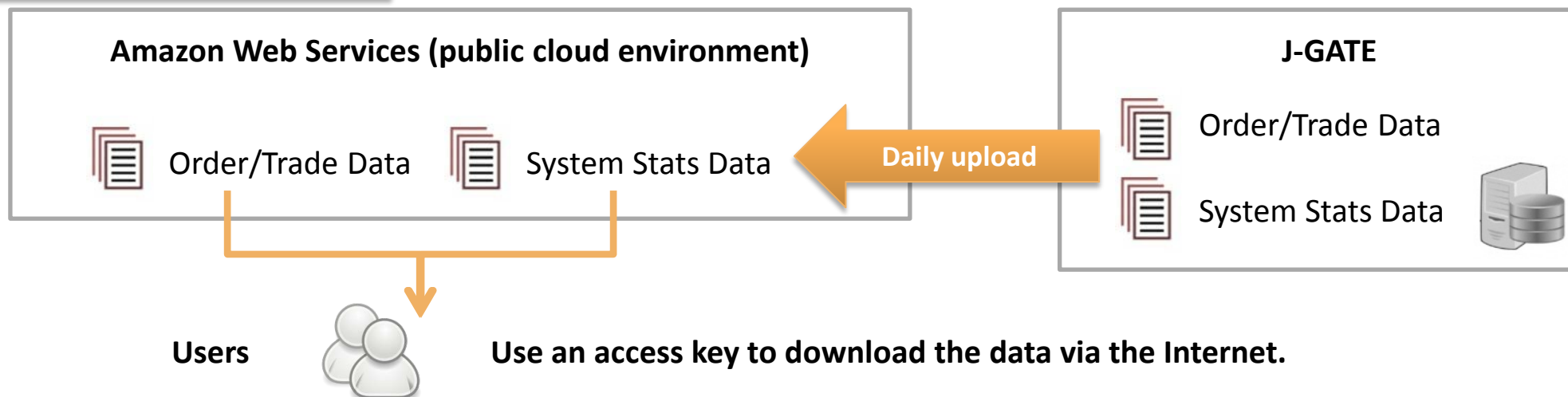
J-NET Portal

A common web-based platform for market participants that enables proprietary trading divisions of security firms and market makers who currently trade on the OTC inter-dealer broker market to execute their trades on-exchange under J-NET trading.

# Diversify and propel data services into the next generation

- Create new information services by leveraging technological innovation and partnerships
  - In March 2019, we began PoC testing with market participants to consider the feasibility of using new data.
  - Based on the feedback from the PoC, a new service started on July 1, 2019 to provide alternative data that covers data not previously provided.

## Provision of alternative data



### Order/Trade Data

J-GATE orders and executions event by event

\*Order/Trade Data contains orders immediately executed, which was not included even in all-order information.

\*Order/Trade Data does not contain information that identifies the user who placed the order.

### System Stats Data

Operation status data (including CPU, memory, network interface card (NIC) usage) on J-GATE Matching Engine servers, ITCH servers.

# Supplementary Information

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# List of Products by Trading Volume (FY2018)

	Product	Trading Volume
1	Nikkei 225 mini	256,461,240
2	Nikkei 225 Options	32,969,161
3	TOPIX Futures	25,350,518
4	Nikkei 225 Futures	24,385,162
5	10-year JGB Futures	10,269,120
6	JPX-Nikkei Index 400 Futures	7,372,269
7	mini-TOPIX Futures	4,280,996
8	Securities Options	793,870
9	TSE Mothers Index Futures	724,474
10	Options on 10-year JGB Futures	709,420
11	TSE REIT Index Futures	352,402
12	TOPIX Banks Index Futures	327,197
13	DJIA Futures	215,422
14	TOPIX Options	156,650
15	Flexible Options	52,210
16	Nikkei 225 VI Futures	11,015
17	mini-10-year JGB Futures	3,392
18	TOPIX Core30 Futures	3,181
19	Nikkei 225 Dividend Index Futures	2,790
20	TAIEX Futures	259
21	India Nifty50 Futures (delisted)	176
22	20-year JGB Futures	138
23	FTSE China Index 50 Futures	4

\*There was no trading of RN Prime Index Futures, TOPIX Dividend Index Futures, TOPIX Core30 Dividend Index Futures, 5-year JGB Futures, and JPX-Nikkei Index 400 Options during the period.

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