

JPX IR Day 2022



Derivatives Market

Exchange & beyond

IWANAGA Moriyuki

President & CEO, Osaka Exchange, Inc.

Representative Director & Chair, Chairperson of the Board,
Tokyo Commodity Exchange, Inc.

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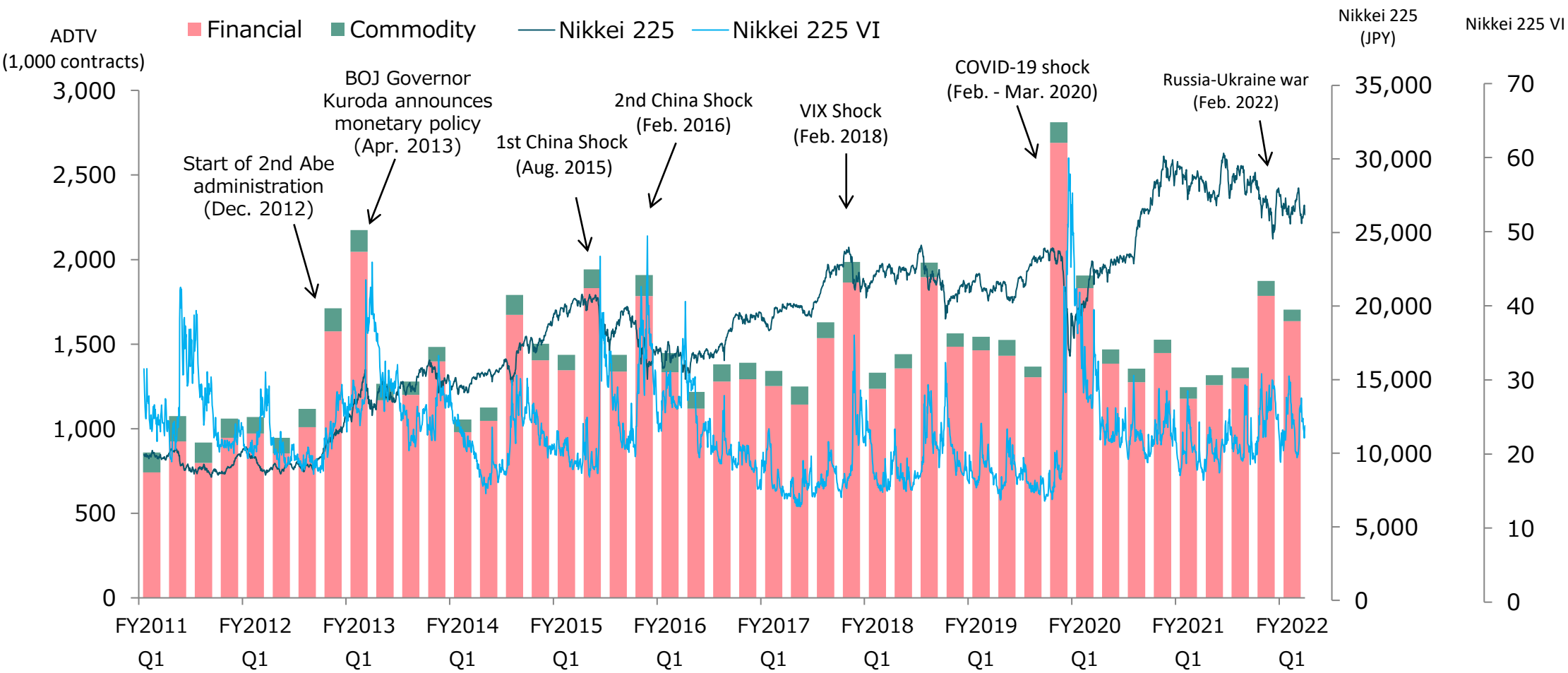


Market Environment



Overview of Derivatives Market - Overall Trading Volume -

- Derivatives trading volume is strongly influenced by market conditions and has a strong correlation with volatility.
- In the first half of FY2021, trading was calm with low and stable levels of volatility. However, towards the end of FY2021, trading became more active due to Russia's invasion of Ukraine, pushing average daily trading volume for FY2021 to 1.44 million contracts.



Source: QUICK

* Trading volumes are the average of each quarter. Nikkei 225 and Nikkei VI indicate daily prices. Figures in the chart are average trading volumes in each fiscal year (in 1,000 contracts). The same applies to pages 4 and 6.

Derivatives Market (Financial) – Active Night Session

- The night session continues to be active, with a 37.6% share of trading volume and a total trading volume of 126 million contracts in FY2021.

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

- In September 2021, trading hours were extended until 6:00 a.m. the following day.

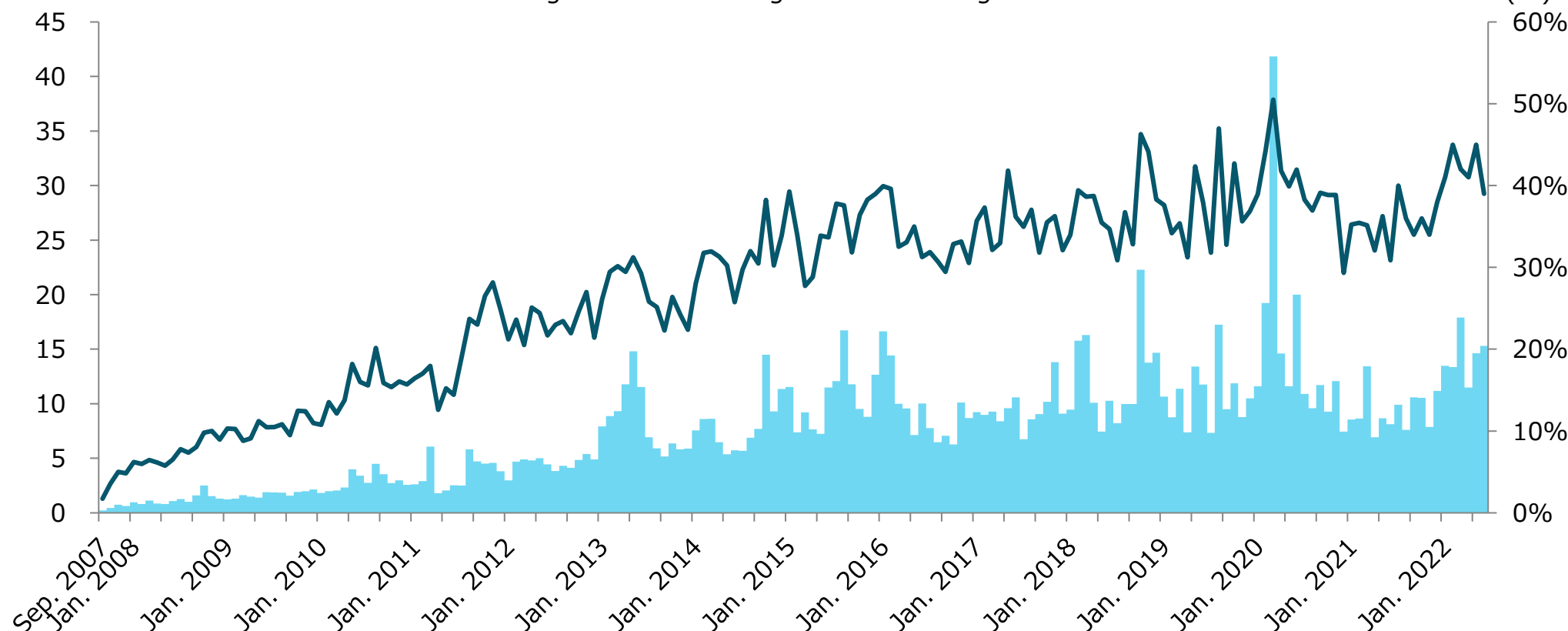
Monthly Trading Volume

(million contracts)

■ Night Session Trading Volume — Night Session Share

Night Session Share

(%)



Night Session
Trading Hours

16 : 30
-19 : 00

16 : 30
-20 : 00

16 : 30
-23 : 30

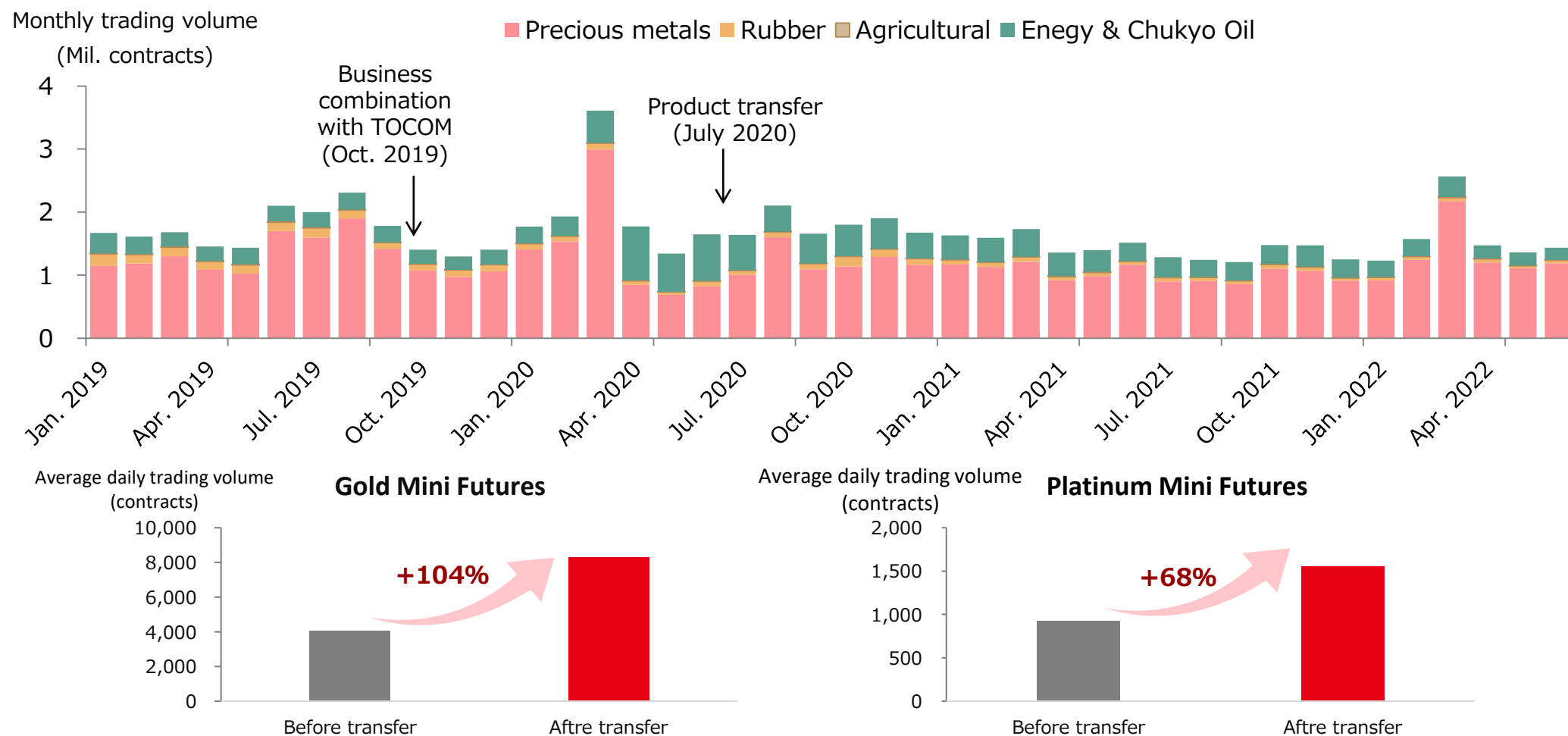
16 : 30
-03 : 00

16 : 30
-05 : 30

Note: Graph data is to end of June 2022.

Derivatives Market (Commodity) – Vitalization of Comprehensive Exchange

- The size of the market continues to shrink, with trading volume in FY2021 at 16.92 million contracts. However, trading of some products such as Gold Mini Futures and Platinum Mini Futures has been increasing since the product transfer.
- In March 2019, a basic agreement was reached for creating a Comprehensive Exchange. A business combination between Japan Exchange Group and TOCOM was implemented in October 2019.
- In July 2020, some TOCOM-listed products (precious metal, rubber, and agricultural) were transferred to OSE.
- In September 2021, CME Group Petroleum Index Futures were listed.
- In April 2022, LNG (Platts JKM) Futures were listed.



Note: "Before transfer" is from Jan. 1, 2019 until July 22, 2020. "After transfer" is from July 27, 2020 until June 30, 2022.

Initiatives to Invigorate the Market



- OSE is gradually revising trading rules after the launch of J-GATE3.0, the new derivatives trading system.
- In addition to introducing holiday trading, OSE plans to list new products such as micro futures.
 - As investment lot sizes get smaller, OSE will enhance products to meet the demand for finer-tuned risk management methods. Moreover, OSE is considering new products and trading rules related to ESG and interest rates.

FY2021	FY2022	FY2023
▼Launch of J-GATE3.0 <ul style="list-style-type: none"> – Extension of trading hours – Improvement of system convenience – Launch of new products 	▽Launch of holiday trading (First holiday trading: Sep. 23, 2022 (Autumn Equinox Day))	▽Launch of Nikkei 225 micro Futures / mini Options
	▼Change to the trading unit of mini-20-year JGB Futures (face value from JPY 100 mil. to JPY 10 mil.)	Listing of ESG-related index futures
	▼Equity investment in DAMS (Digital Asset Markets)	Strengthening functionality of interest rate-related markets
	▼Reduction of tick size for Gold Mini Futures and Platinum Mini Futures (from JPY 1 to JPY 0.5)	
	▼Permanent listing of Electricity Futures	▽Extension of off-auction trading session for Electricity Futures (end of night session will change from 19:00 to 19:30)
	▼Trial listing of LNG Futures	

Listing of Nikkei 225 micro Futures and mini Options

- In recent years, circumstances surrounding Nikkei 225 Futures and Options have changed. To provide finer-tuned risk management methods and thereby increase the number of users, OSE plans to launch Nikkei 225 micro Futures and mini Options, small-lot products whose notional principals are smaller than those of existing products, in the 1st quarter of FY2023.
 - micro Futures will be launched as a new product, and mini Options will be launched by way of changes to the rules, including product names, of the existing product. The contract units for mini Options will be one tenth of the existing product. (That of micro Futures will be one tenth of the mini Futures.)

Smaller-lot investment in cash products Rise of smartphone-based securities companies handling odd-lot shares

It is necessary to provide hedging vehicles to match cash markets with increasingly smaller investment lots.

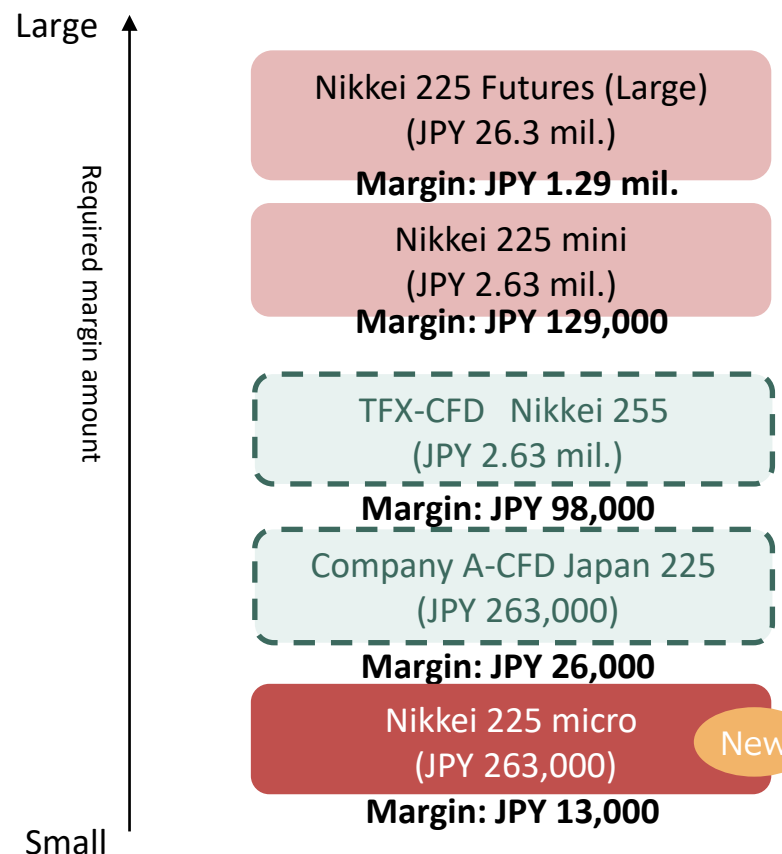
Increased size of derivative investment units Increasing investment costs due mainly to rises in market prices

Mainly retail investors say trading is becoming difficult due to bigger investment units.

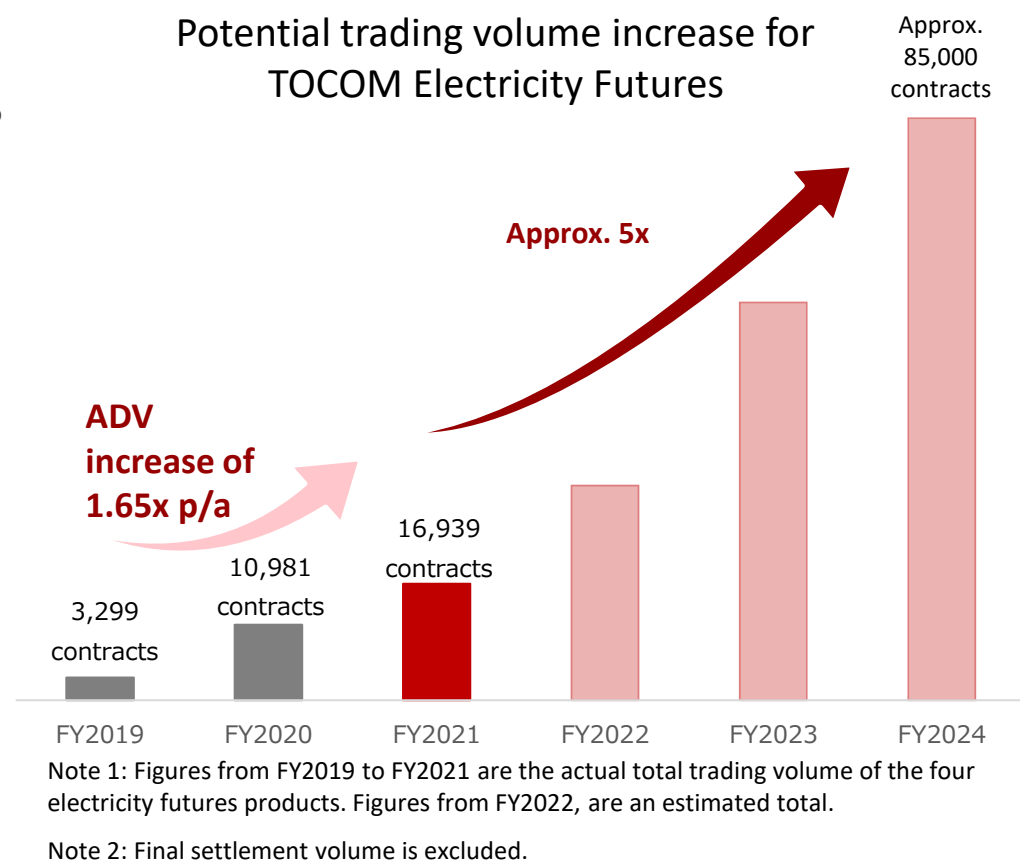
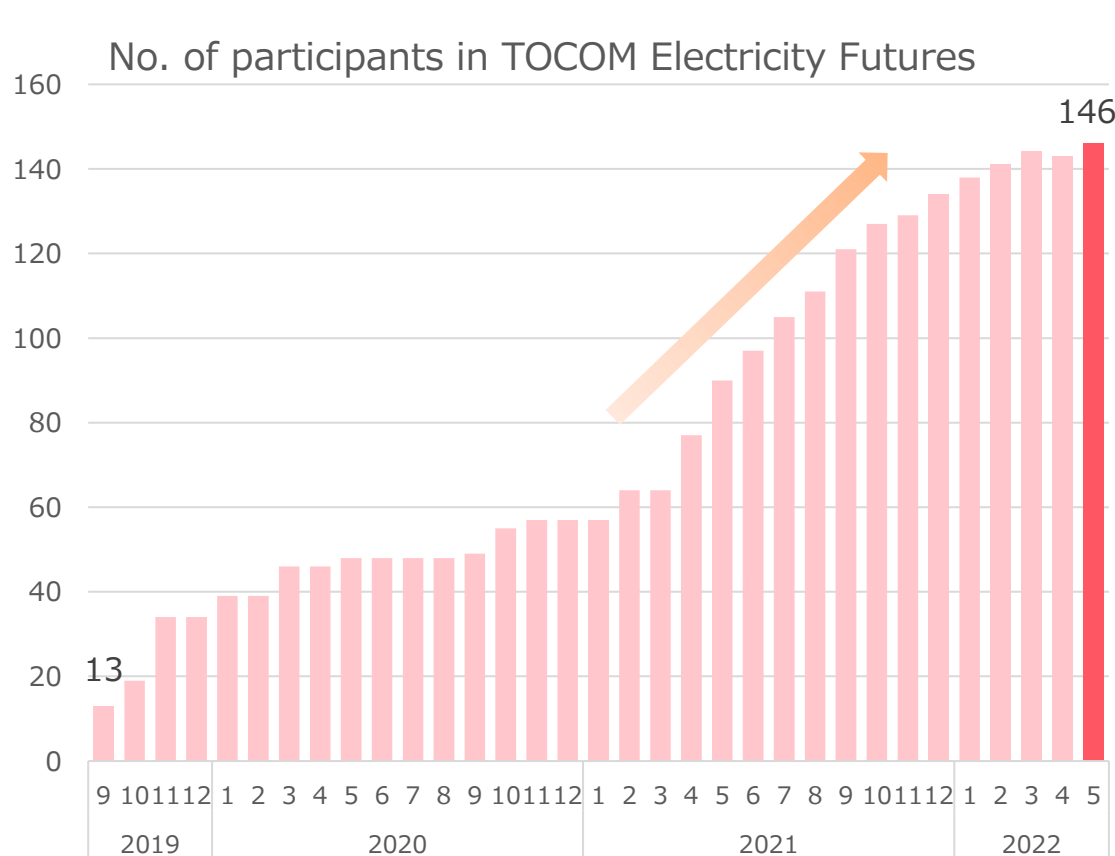
Diversified investment methods Emergence of similar/alternative products

Nikkei 225 mini is no longer seen as an entry product.

Product mapping after listing of Nikkei 225 micro Futures
(as of end of June 2022. Values in parentheses are predicted notional values)



- The number of participants in Electricity Futures has dramatically increased since the rise in electricity prices in January 2021, reaching 146 companies as of end of May 2022.
- Average daily trading volume has increased at a pace of 1.65 times each year from FY2019 until FY2021. In April 2022 when the permanent listing was approved by METI, monthly trading volume reached a record high. If this trend continues, the trading volume is likely to increase to about five times the current level in the next three years.
 - To further increase trading volume, OSE will revise product designs and improve rules. First, OSE plans to extend off-auction trading hours in November 2022.
- OSE implemented trial listing of LNG Futures in April 2022 and will encourage business corporations such as electric power companies to trade Electricity Futures, as well as futures on crude oil and LNG which are fuel for power generation.



Note 1: Figures from FY2019 to FY2021 are the actual total trading volume of the four electricity futures products. Figures from FY2022, are an estimated total.

Note 2: Final settlement volume is excluded.

Reference Materials



Reference: Derivatives Holiday Trading

- We plan to introduce holiday trading in the derivatives market in September 2022, from the perspective of further convenience for investors through provision of hedging opportunities during national holidays, thereby strengthening the competitiveness of Japan's derivatives markets.
- In 2022, holiday trading will be held on four days (Fri., Sep. 23 (Autumnal Equinox Day), Mon., Oct. 10 (Day of Sports), Thu., Nov. 3 (Culture Day), and Wed., Nov. 23 (Labor Thanksgiving Day))

- All products eligible excluding JGB Futures, Options on JGB Futures, and Individual Securities Options

- All current non-business days eligible (approx. 19 days in a year) excluding Saturdays, Sundays, and January 1

- However, when we consider it necessary to use a holiday for the purpose of large-scale system replacement, etc. at JPX or consider that a specific holiday should be excluded, said holiday will not be eligible.
- The planned holiday trading days for the next year will be announced in February, and the finalized dates for the first half and second half of the next year will be announced in June and December respectively.

Year	Category	Japan (OSE/TOCOM)	US (CME)	UK (ICE Europe)	Germany (Eurex)	Singapore (SGX)	Hong Kong (HKEX)
2021	No. of national holidays	16	11	8	9	11	17
	No. of non-trading days	16	Full day: 3 Half day: 8	3	5	1	13
Holiday trading		no	Yes	Yes	Yes	Yes	Yes
No. of holiday trading days (2021)		0	8	5	2	7	0
Holiday trading for domestic stock index futures		no	Yes (S&P 500)	No (FTSE 100)	Yes (DAX)	Yes (ST)	Yes (MSCI China)
Holiday trading for Japanese stock index futures		no	Yes (Nikkei 225 & TOPIX)	Yes (MSCI Japan)	Yes (MSCI Japan)	Yes (Nikkei 225)	Yes (MSCI Japan)

Note 1: Holiday trading refers to day session trading on holidays (night sessions before and after holidays are excluded)
 Note 2: HKEX launched holiday trading on May 9, 2022.
 Note 3: Excluding CME, no. of non-trading days refers to full-day non trading days.
 Note 4: Regional holidays are not included.

Top 20 Products by Trading Volume (FY2021)

	Product	Trading Volume	y/y	Note
1	Nikkei 225 mini	241,429,661	-8.5%	
2	Nikkei 225 Options	23,689,417	-6.8%	
3	TOPIX Futures	23,495,425	-5.9%	
4	Nikkei 225 Futures	18,540,770	-17.5%	
5	mini-TOPIX Futures	9,064,320	+9.7%	Highest ever
6	10-year JGB Futures	8,119,349	-14.1%	
7	Gold Standard Futures	6,672,239	-3.7%	
8	JPX-Nikkei Index 400 Futures	3,762,898	-28.7%	
9	Platts Dubai Crude Oil Futures	3,617,198	-41.0%	
10	Platinum Standard Futures	2,514,748	+35.4%	
11	TSE Mothers Index Futures	2,449,830	+47.3%	Highest ever
12	Gold Mini Futures	1,921,127	+8.3%	
13	Securities Options	1,875,101	+15.4%	Second highest ever
14	TSE REIT Index Futures	855,712	-7.2%	
15	Nikkei 225 Weekly Options	807,280	+38.9%	
16	Gold Rolling Spot Futures	795,251	-31.2%	
17	RSS3 Rubber Futures	672,164	-35.1%	
18	TOPIX Options	510,913	+96.0%	Second highest ever
19	DJIA Futures	432,372	+26.6%	Highest ever
20	Platinum Mini Futures	420,590	+72.5%	Highest ever

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