

JPX Investor Day 2024

Derivatives Market

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July 2, 2024



1. Trends in the Derivatives Market Overall

2. Individual Trends

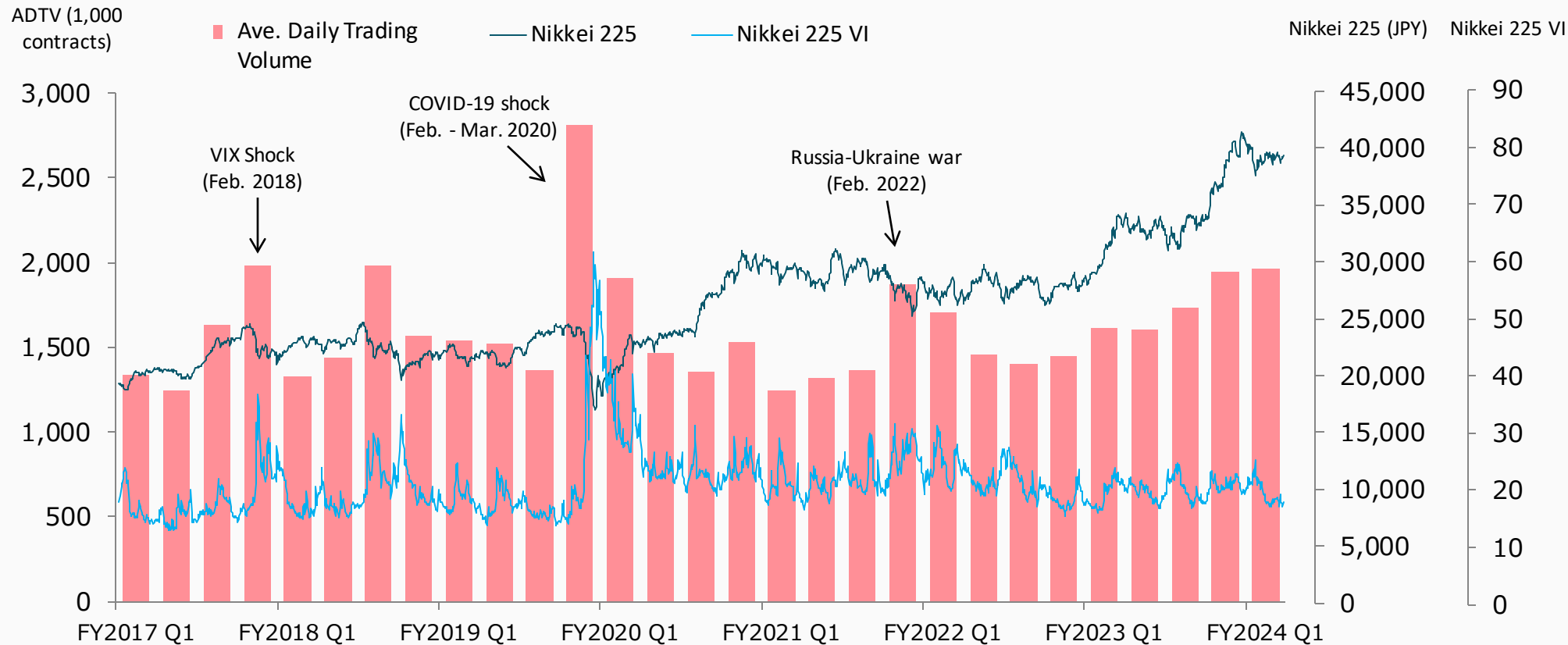
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Overview of Derivatives Market - Overall Trading Volume

- Derivatives trading volume is strongly influenced by market conditions and has a strong correlation with volatility.
- While volatility in FY2023 held generally low and stable, strong stock prices and changes to monetary policy, in addition to holiday trading and the launch of new products, contributed to an increase in average daily trading volume to 1,720,000 contracts (+220,000 contracts, 14.3% year-on-year).

Derivatives Trading Volume (OSE/TOCOM combined)



Note: Daily trading volumes are quarterly averages. Figures for Nikkei 225 and Nikkei 225 VI are daily values. The data for Q1 FY2024 is until June 24, 2024.

Source: QUICK

Recent Initiatives

- Listing of new products and introduction of new systems to meet the diverse needs of market participants

Main Initiatives in FY2022 and Beyond

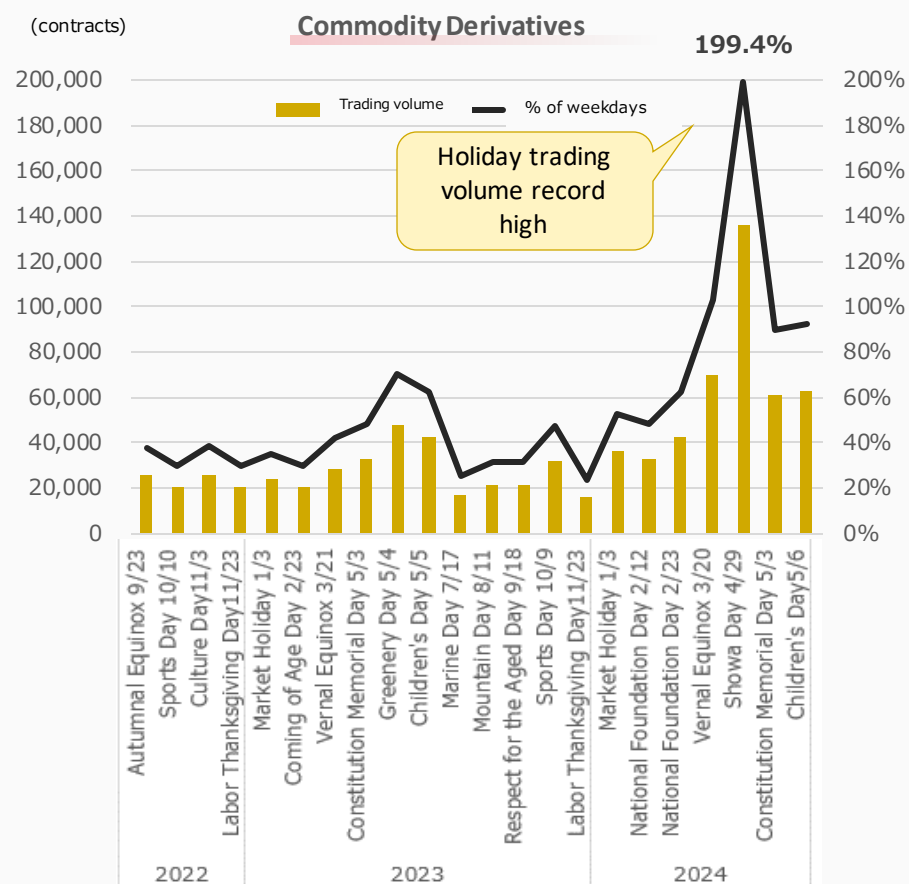
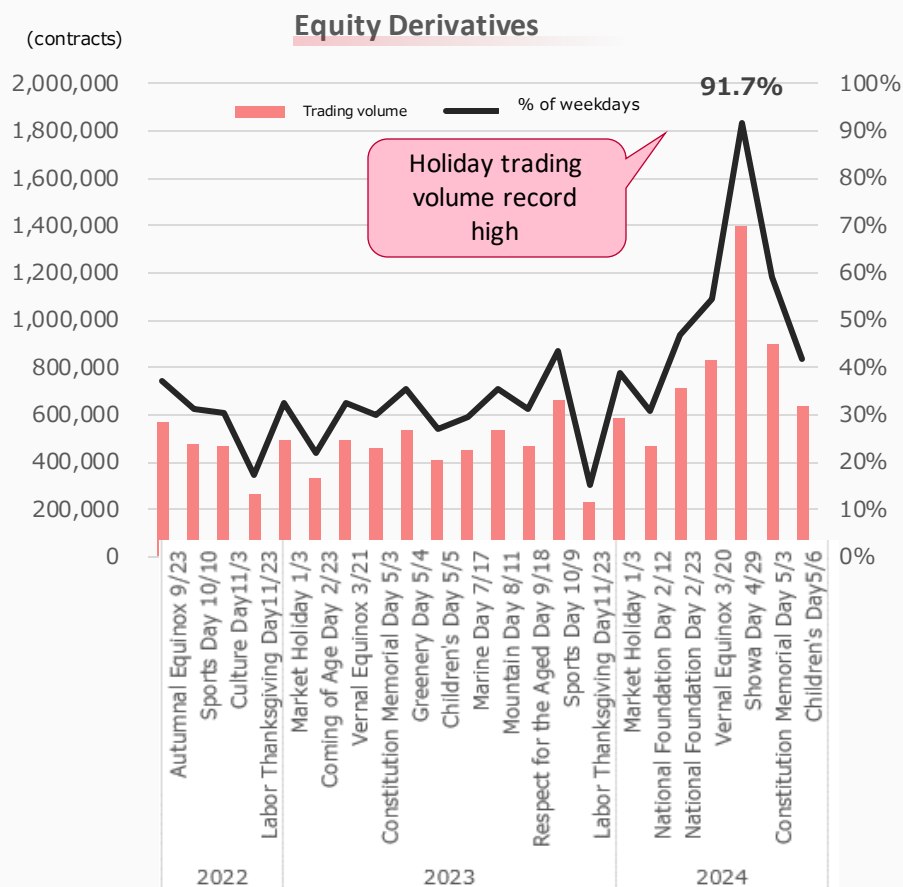
Apr. 2022	Permanent listing of Electricity Futures (TOCOM)
	Trial listing of LNG Futures (TOCOM)
Sept. 2022	Launch of derivatives holiday trading (OSE/TOCOM)
Jan. 2023	Signing of MoU with Japan Electric Power Exchange (JPX)
May 2023	Listing of Nikkei 225 micro Futures and Nikkei mini Options (OSE)
	Listing of Interest Rate (3-Month TONA) Futures (OSE)
Mar. 2024	Listing of weekly Electricity Futures (TOCOM)
	Listing of futures on JPX Prime 150 Index (OSE)
May 2025	Addition of Wednesday expiration dates to Nikkei 225 mini Options (OSE)

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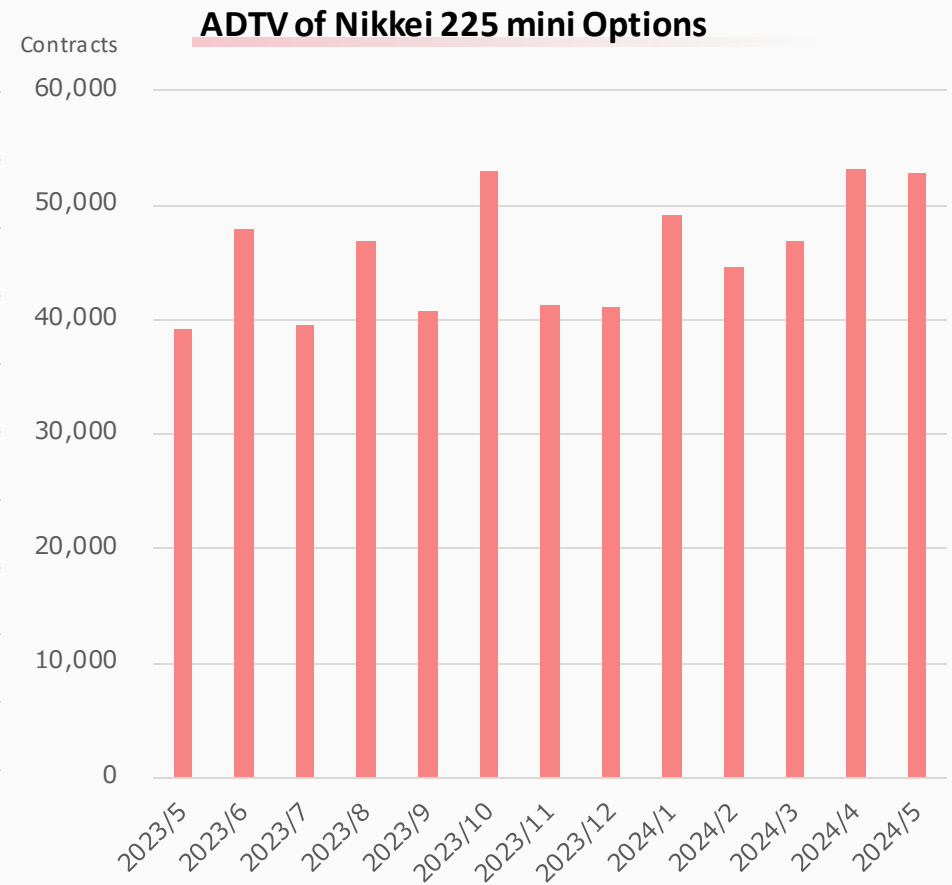
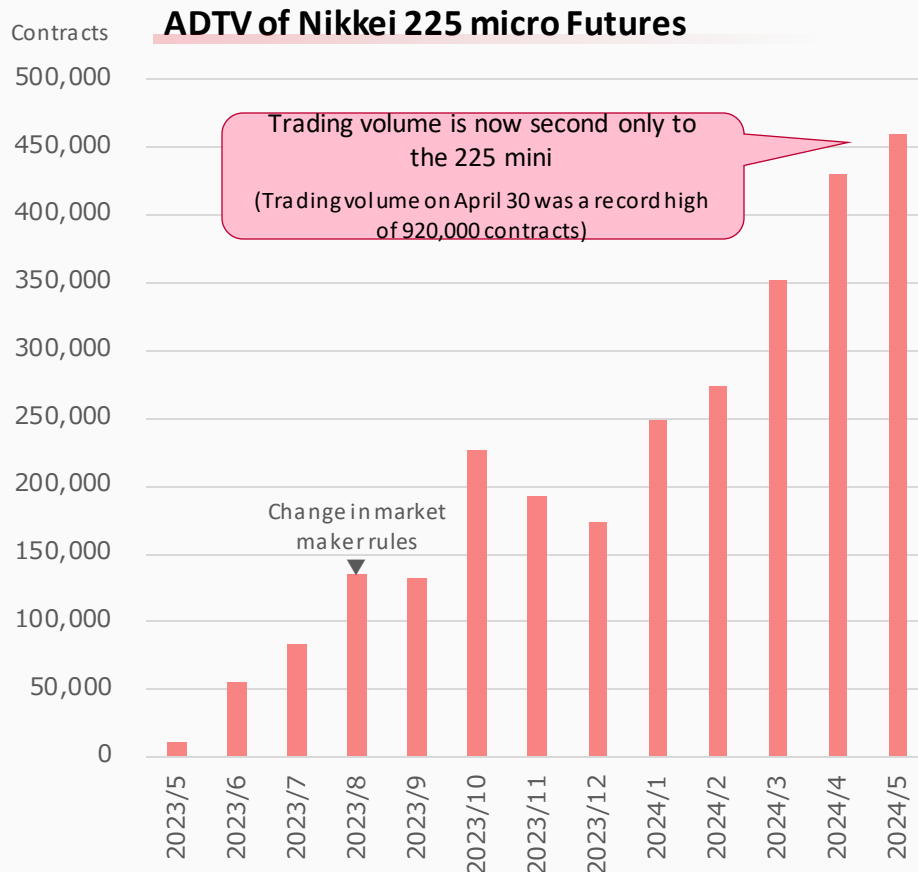
Derivatives Holiday Trading

- Holiday trading of derivatives started in September 2022, in order to enhance investor convenience by providing hedging opportunities during holidays.
- 22 holiday trading days have been conducted so far, with trading volumes of about 40% of weekdays.
- Trading volume exceeded initial expectations, which were based on holiday trading volumes at overseas derivatives exchanges.
- Most recently, due to sharp swings in the yen on overseas currency exchanges during the run of consecutive holidays in April/May, derivatives were used as risk hedging tools, sending **both OSE and TOCOM holiday trading volumes to record highs**.



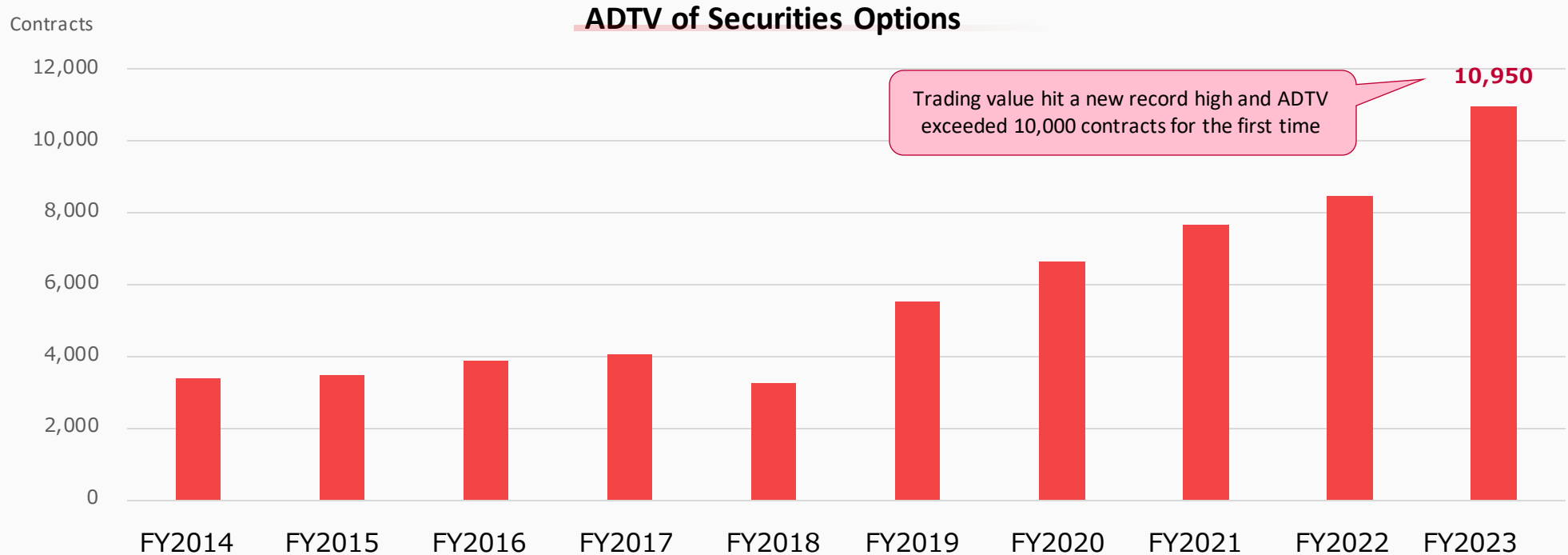
Trends in Nikkei 225 micro Futures and mini Options

- Nikkei 225 micro Futures and mini Options, with smaller notional amounts than existing products, were listed on May 29 last year.
- Trading volumes for both products are growing healthily, and they have become an entry product for those with no previous experience of futures and options.
- In May 2025, we will add new expiration dates for mini Options. By adding issues with a Wednesday expiration to the existing Friday ones, we will provide more targeted risk hedging tools that can respond to all kinds of economic events.



Securities Options (Single Stock Options) Market

- Given the recent increase in interest in Japanese stocks due to bullish stock prices and the new NISA, the securities options market is attracting attention from investors as its use cases are closely linked with cash equity investment, such as improving yield on and hedging individual stocks and ETFs.
- To expand and normalize the use of these products, OSE has changed the margin rules so that no extra margin deposit will be required for covered call and target buying transactions under certain conditions (from June 2024).
- Trading is on a gradual upward trajectory. Given that Japan's cash equity market is the world's third largest, there is much room for improvement.

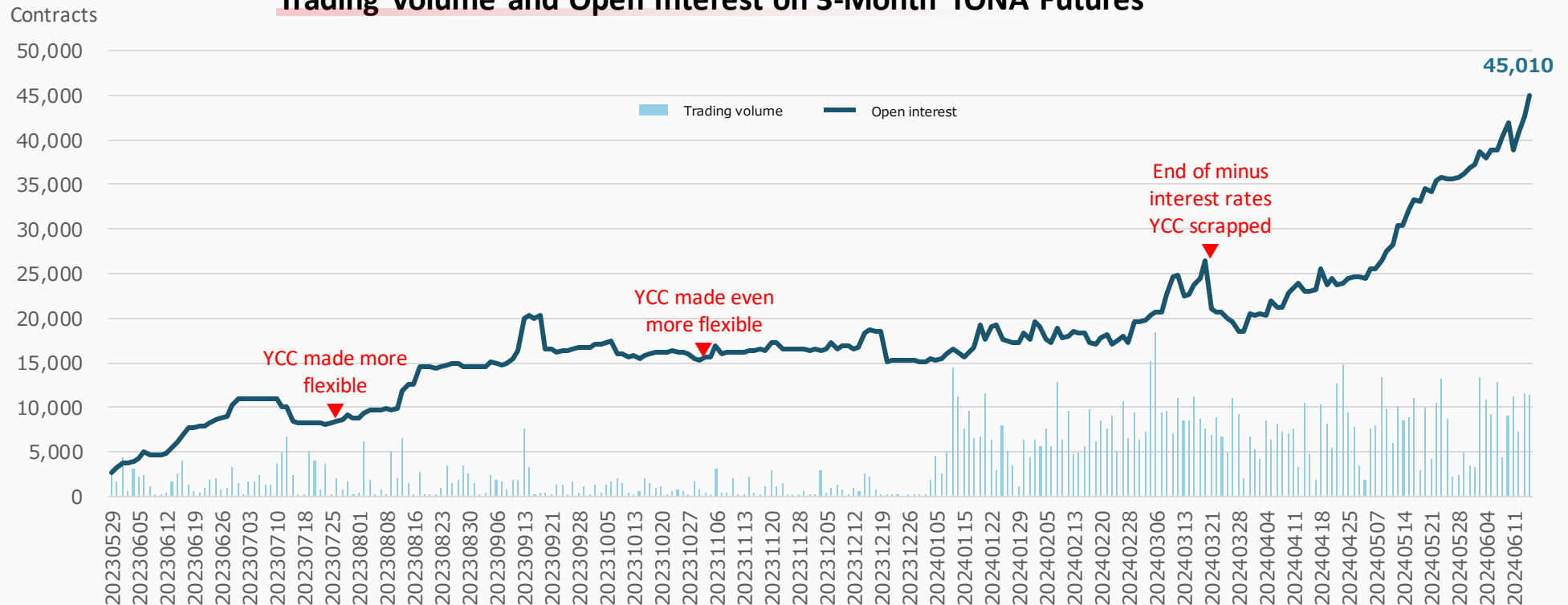


- We plan to add eligible issues depending on market demand.

Expanding the Interest Rate (3-Month TONA*) Futures Market

- Listed on May 29 last year in response to growing attention to JPY interest rates caused by rising prices and interest rate hikes in other countries, among other things
- With 10-year JGB Futures already available, 3-Month TONA Futures provide market participants with the convenience of one-stop trading of short- and long-term interest rate products.
- We also implemented cross-margining rules that enable investors with positions in interest rate swaps and short-term interest rate futures to reduce their collateral burden (launched March 4, 2024).
- Since the end of minus interest rates in March 2024, interest in the market has jumped, and there has been strong growth in positions.

Trading Volume and Open Interest on 3-Month TONA Futures

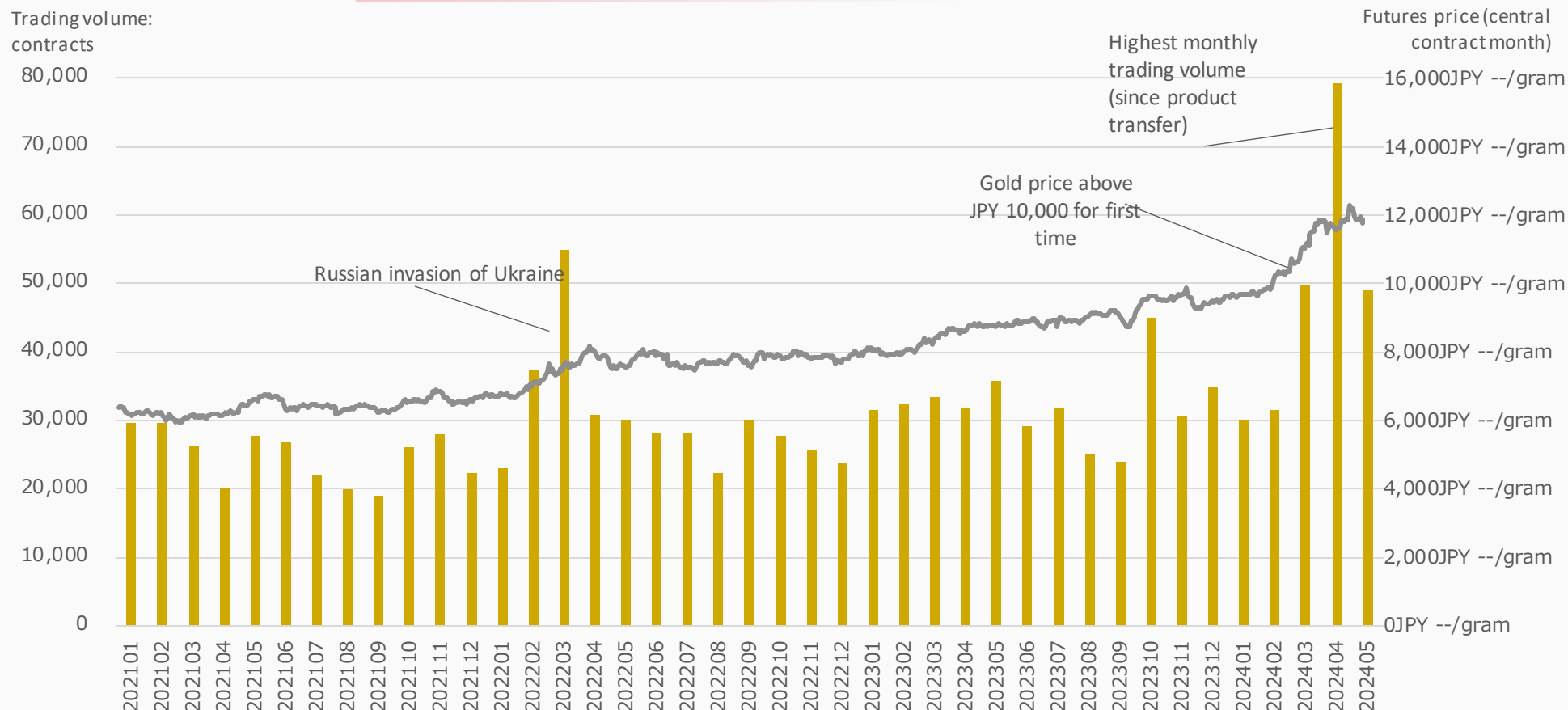


*TONA is an abbreviation of Tokyo Over Night Average rate and represents the interest rate for transactions in which short-term funds are borrowed without collateral in the call market and repaid the next day. In Japan, TONA has been identified as an alternative risk-free rate to LIBOR.

Trends in Gold Futures

- As the price of gold continues to break records, interest from retail investors is holding at a high level.
- Trading volumes are strong, partly due to the entry of commercial entities using the market for import/export or other business purposes. Since the second half of the last fiscal year, trading volume has been holding steadily above 30,000 contracts. April 2024 saw the highest monthly volume since the product transfer to OSE.

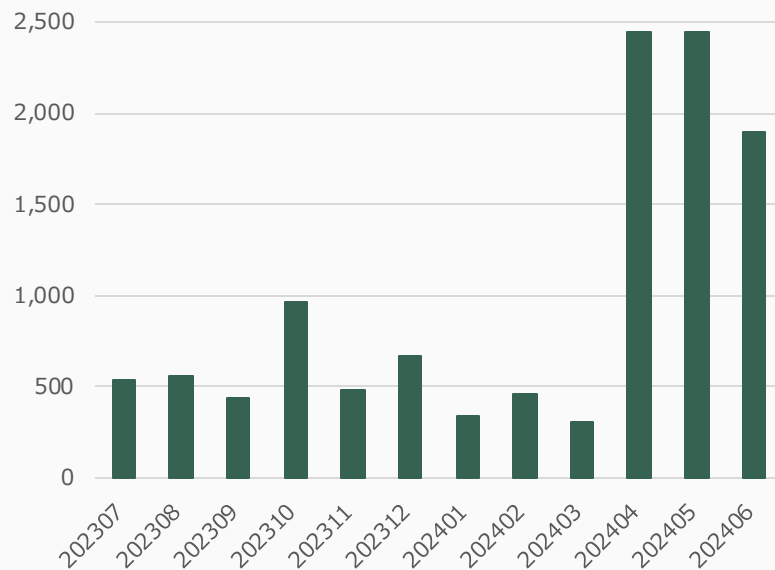
ADTV and Price of Gold Standard Futures



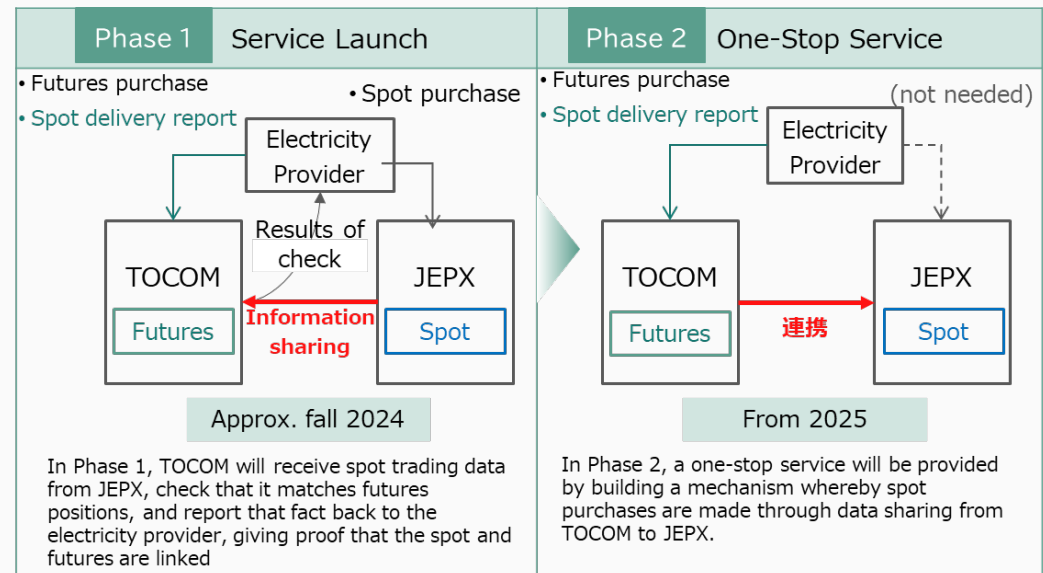
Electricity Futures

- Given that Japan is the world's fourth-largest consumer of electricity, there are expectations for growth of the energy market.
- After launching with 13 companies, the electricity market has now grown to 170 companies, and is steadily expanding its range.
- Weekly futures were added in March 2024 to respond to demand for short-term risk hedging.
- In April to June 2024, we strengthened the market maker scheme temporarily to encourage hedge trading for the high-demand summer season. Since this was well-received by market participants, we have extended the initiative (July to August) to encourage hedge trading for autumn and beyond.

Contracts Electricity Futures: Monthly Trading Volumes in the Last Year



The JJ-Link Service



- JPX has signed an MoU with Japan Electric Power Exchange (JEPX) for cooperation toward strengthening the functions of the electricity market, and the two plan **joint provision of a service to link spot and futures trades** (tentatively named **JJ-Link**). We expect JJ-Link to bring benefits such as simplifying electricity utilities' operations and potentially being a positive factor when applying hedge accounting to electricity futures.
- TOCOM plans to set up a working group on applying hedge accounting to electricity futures from late July to discuss the issues that could arise in terms of accounting standards.

(Reference) Top 20 Products by Trading Volume (FY2023)

	Product	Trading Volume	y/y	Note
1	Nikkei 225 mini	255,276,857	-0.4%	
2	Nikkei 225 micro Futures	37,808,031	—	Newly listed
3	TOPIX Futures	27,096,406	+5.9%	Second highest ever
4	Nikkei 225 Options	22,027,740	-11.8%	
5	Nikkei 225 Futures	21,320,485	-0.7%	
6	10-year JGB Futures	10,183,892	+29.1%	
7	Nikkei 225 mini Options	9,333,624	—	Newly listed
8	Gold Standard Futures	8,115,580	+15.8%	
9	mini-TOPIX Futures	6,979,050	+8.6%	Third highest ever
10	JPX-Nikkei Index 400 Futures	3,178,308	+17.4%	
11	Securities Options	2,671,850	+28.9%	Highest ever
12	Platinum Standard Futures	2,554,636	+3.4%	
13	TSE Growth Market 250 Index Futures	2,191,041	-8.4%	Third highest ever
14	Gold Rolling-Spot Futures	2,182,494	+62.0%	
15	DJIA Futures	1,737,724	-17.0%	
16	TSE REIT Index Futures	1,327,858	+25.6%	Highest ever
17	Gold Mini Futures	1,300,994	-15.5%	
18	Platinum Mini Futures	947,529	+236.9%	Second highest ever
19	TOPIX Banks Index Futures	754,997	+1.9%	Highest ever
20	TOPIX Options	721,120	+30.3%	Second highest ever
Total		419,734,734	+14.3%	Second highest ever

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