



Japan Exchange Group, Inc.

JPX Investor Day 2023

July 6, 2023 13:30 – 15:00

Speaker:

Iwanaga Moriyuki, President & CEO, Tokyo Stock Exchange, Inc.

Yokoyama Ryusuke, President & CEO, Osaka Exchange, Inc.
Representative Director & Chair, Tokyo Commodity Exchange, Inc.

Miyahara Koichiro, President & CEO, JPX Market Innovation & Research, Inc.

Tabata Atsushi, Senior Executive Officer & CFO, Japan Exchange Group, Inc.

Presentation

Yaguchi: Thank you very much for joining us today, despite your busy schedules. As we have reached the scheduled time, we will begin the Japan Exchange Group's Investor Day. This event is being held in a hybrid format, with both in-person attendance and live webinar broadcast.

First, let me explain today's proceedings. We will start by explaining three of our businesses, followed by a Q&A session for each business. Finally, we will have a general Q&A session.

The transcription and English translation of the explanations and Q&A sessions of this briefing will be prepared and distributed by SCRIPTS Asia, a group company of ours. It will also be posted on our website. We ask for your understanding in advance.

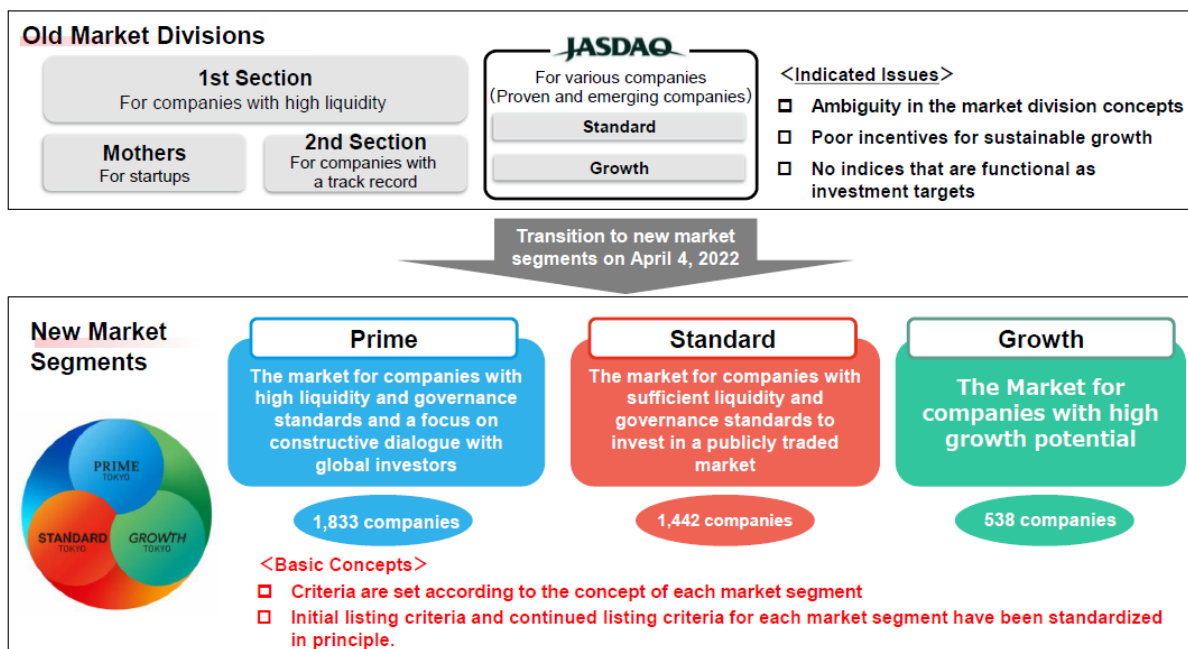
Next, let me introduce our attendees. Iwanaga Moriyuki, President and CEO of Tokyo Stock Exchange (TSE). Yokoyama Ryusuke, President and CEO of Osaka Exchange (OSE) and Chair of Tokyo Commodity Exchange (TOCOM). Miyahara Koichiro, President and CEO of JPX Market Innovation & Research (JPXI). Tabata Atsushi, CFO and Senior Executive Officer of Japan Exchange Group (JPX). I, Yaguchi, from the Corporate Communications Department, will be the moderator.

Now, let's move on to the explanation of each business. First, President Iwanaga will explain about the cash equity market. President Iwanaga, please go ahead.

TSE Market Restructuring



- On April 4, 2022, TSE restructured the cash equity market to incentivize sustainable growth and medium- to long-term corporate value creation at listed companies, thereby providing an attractive market that gains support from various types of investors both domestic and overseas.



(Note) The number of listed companies in each market is as of the end of June 2023. The number of companies applying the grace period (as of the end of December 2022) is 269 for the Prime Market, 200 for the Standard Market, and 41 for the Growth Market, for a total of 510 companies

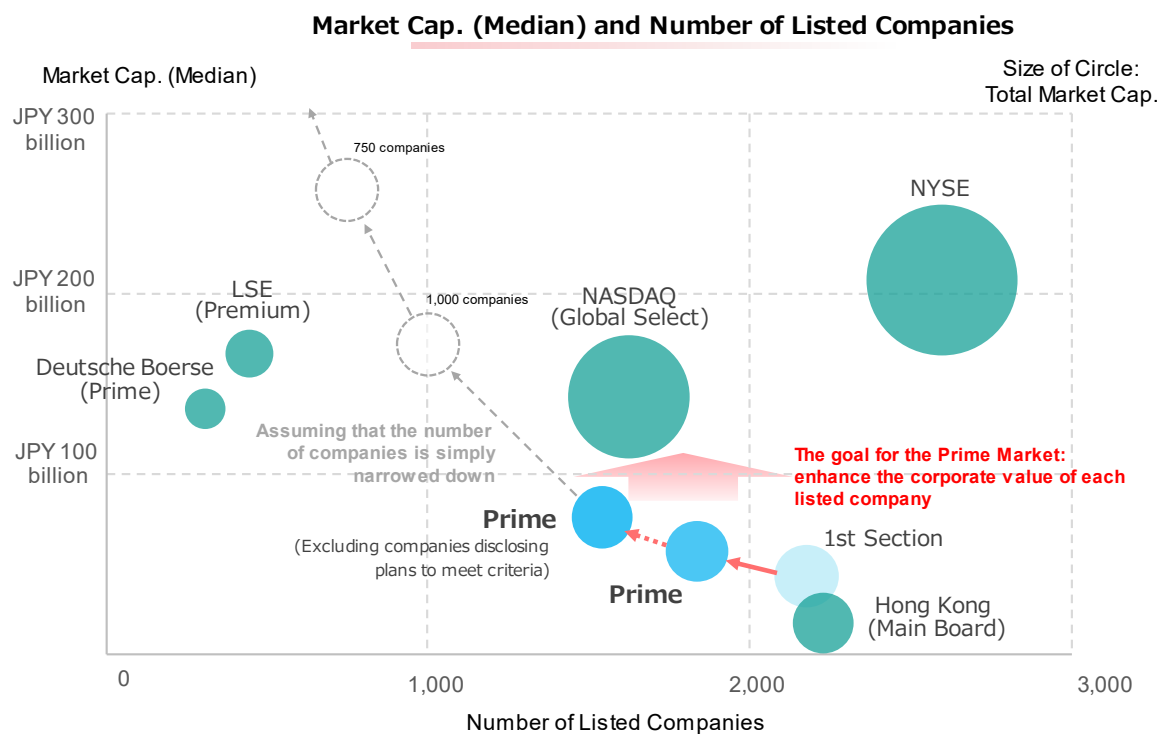
© 2023 Japan Exchange Group, Inc.

4

Iwanaga: Once again, this is Iwanaga. Thank you for your time today. I will report and explain the current efforts regarding the cash equity market.

First, I would like to explain the measures related to listing. As you know, Tokyo Stock Exchange fundamentally revised its market classifications, long referred to as the First or Second Sections, in April of last year.

As shown in this material, you can see the current number of listed companies in each market, but this is not just a change in the name of the division. Our aim is to encourage sustainable growth of listed companies and support the improvement of corporate value in the medium to long term.



This is an image to help you more easily visualize our aim. Here we have compared the number and size of listed companies in the stock markets of various countries globally. The horizontal axis represents the number of companies in each market, and the vertical axis represents the median market capitalization. The size of the circle indicates the total market capitalization of each market.

The old First Section market is shown in light blue at the bottom right. As we tighten listing standards and reduce the number of companies, the market capitalization of the median company increases, shifting the position to the top left. In that sense, the movement from the First Section to the darker light blue Prime is showing this trend.

Still, there are comments that the Prime market is not at all prime because there are too many companies, and that we should be more selective. However, the actual number of companies listed on the Prime market, excluding those subject to transitional measures, is around 1,500. As you can see, this number is not necessarily high compared to NASDAQ or Hong Kong.

If we were to make the continued listing criteria stricter, narrow down the number of companies, and ensure that smaller companies do not remain in the Prime, the median market capitalization would increase, shifting the graph to the top left. However, unless the market capitalization of each company changes, the size of this circle will not change.

What we aimed for in this market restructuring is the shift in the direction of the thick red arrow, where the corporate value of each company increases, and the value of Japan's market as a whole, that is, the total market capitalization represented by the size of the circle, increases. We are aiming for a situation where when Japanese individual investors shift from deposits to investments in Japanese stocks, stock prices continue to rise, and asset values also increase.

Follow-up of Market Restructuring



- To improve the effectiveness of the market restructuring, TSE has established the “**Council of Experts Concerning the Follow-up of Market Restructuring**”.
- In January 2023, TSE published the “**Summary of Discussions on Measures to Improve the Effectiveness of the Market Restructuring**” which summarizes the discussions to date and “**TSE's Future Actions in Response to the Summary of Discussions of the Follow-up Council.**” which involve:
 - Clarification of the end date of transitional measures with respect to the continued listing criteria (March 2025)
 - Even for listed companies that are not at risk of violating the continued listing criteria TSE will establish a framework to motivate autonomous actions to enhance their medium- to long-term corporate value, such as by 1) raising awareness and literacy regarding cost of capital and stock price, 2) improving the effectiveness of dialogue with investors, 3) improving the quality of corporate governance, and 4) further expansion of English disclosure practices.



- In March 2023, TSE sent a notice and requests to listed companies regarding the following agenda from the Council: “Action to Implement Management that is Conscious of Cost of Capital and Stock Price”, “Better Dialogue with Shareholders and Related Disclosure” and “Key Points and Examples of “Explanation” That Contribute to Constructive Dialogue”.
- ⇒ The council will continue to follow-up on listed companies' responses to these requests. (Report and discussion scheduled for this fall)
- ⇒ In addition, it will also discuss making English disclosure of necessary information mandatory for companies listed on the Prime Market.

© 2023 Japan Exchange Group, Inc.

6

Regarding the market restructuring, it does have an impact on companies that fall on the new borderline, but as I mentioned earlier, it also carries the implication of being a strategy to expand the corporate value of all listed companies.

Therefore, in order to monitor the initiatives of the companies and improve the effectiveness of the market restructuring, we set up a follow-up council in July of last year, received very enthusiastic discussions from experts, and published the summary of the discussion points and future actions in January of this year.

There are two points about our future response. The first point is that when transitioning to this classification, we set up transitional measures that allow companies in the First Section to remain listed on the Prime for the time being, even if they do not meet the continued listing criteria for the Prime. However, from the perspective of enabling healthy turnover, we have clarified that we will end this by March 2025, which is three years after the transition.

The second point is that from the perspective of revitalizing the entire Japanese market, we decided to promote the initiatives and measures of each company from the four perspectives listed as points (1) to (4), in order to encourage voluntary efforts towards improving corporate value in the medium to long term, even for large-scale companies that are not at the risk of violating continued listing criteria.

In March of this year, we first issued a request for action aimed at realizing management that is conscious of capital costs and stock prices, related to points (1) to (3).

As of this January, it was decided that a strong call for improvement should be made to companies with a Price-to-Book Ratio (PBR) consistently below 1. Consequently, the concept of “PBR below 1” has gained

symbolic significance and is considered one of the reasons for the current bullish market. Moreover, TSE has adopted the view that the PBR should be used as one of the reference indicators from March onwards.

Based on this request, we will monitor the response of listed companies and plan to compile and analyze the data around autumn, report the content at the follow-up council, and have further discussions. Based on that, we will consider actions to further promote the efforts of listed companies.

In addition, we have decided to consider making the English disclosure of necessary information mandatory in the Prime Market in the future, and we plan to discuss what content should be made mandatory at the follow-up council.

(Reference) Examples of opinions and questions received so far **(Excerpt of the meeting material of the 10th council on April 25, 2023)**



Necessity of follow-up on listed companies' response

- While we see this request as a favorable initiative, it is important to encourage companies to take action in the future so that this does not end with just a formal disclosure. (Foreign investor and others)
- Do you expect that the details of this request will be stipulated in the listing rules, etc. in the future? (Foreign investor and others)
- Investor engagement is key in preventing this request from becoming a formality. It is also important that the number of companies willing to engage in dialogue with investors increases. (Securities Company)

Stance on share buybacks and dividend increases in response to this request

- Many listed companies have asked for advice on how to respond to this request. However, since there is a tendency to take "one-time measures" such as share buybacks, it is necessary to fully inform the public of the purpose of the request. (Securities Company)
- For companies with investment opportunities that exceed their cost of capital, investments should be prioritized, but for companies without such opportunities, the best course of action may be to prioritize shareholder returns over investment in growth. It is important that this perspective be clarified. (Domestic Investor)

Stance on PBR (1x)

- Why did you focus on companies having a PBR of 1x, understanding that it is not just a matter of exceeding 1x? (Foreign investor)
- There are concerns that companies will be short-sighted and think that it is enough to meet a PBR of 1x as a mere formality. A PBR of 1x is only an indicator, and investors are expecting companies to reconsider their sustainable business plans. (Foreign investor)

Stance on trends by industry (regarding PBR, ROE, etc.)

- How should we consider and respond to industry trends with respect to PBR and ROE? (Listed company)

Issues and future initiatives regarding the Growth Market

- This request is for companies listed in the Prime and Standard Markets, but what initiatives will be taken for those in the Growth Market in the future? (Domestic Investor)

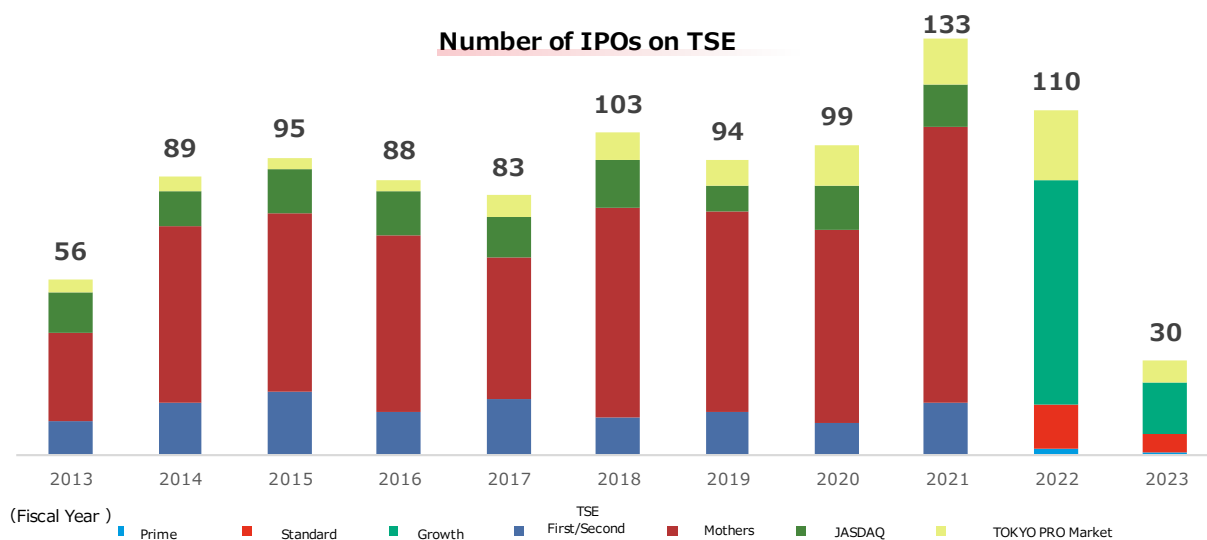
This is a digest of opinions and questions we have received so far about our market restructuring.

As you can see from the top comment, many investors share our understanding and are calling for a need to follow up on company initiatives thoroughly to prevent it from ending with temporary measures.

Continued Level of IPOs on TSE



- The number of IPOs on TSE in FY2022 remains high at 110 companies.
- From FY2022, we launched programs for the management of companies aiming for IPO with IPO supporters in each region focusing on the establishment of an IPO ecosystem that contributes to revitalizing regional economies.



Note 1: Includes initial listings on TOKYO PRO Market and does not include listings via TOKYO PRO Market.

Note 2: Number of companies by the end of June for FY2023

© 2023 Japan Exchange Group, Inc.

8

This slide shows the status of IPOs. In FY2022, 110 companies have successfully conducted their IPOs on TSE. While last year was indeed a challenging phase for capital raising, the number of IPOs has been maintained at a high level over the past few years, indicating that companies' eagerness for IPOs remains robust.

Since the start of this fiscal year, in the three months through June, 30 companies have completed their IPOs, including those in the TOKYO PRO Market. While yesterday's newspapers reported figures on a calendar year basis, when considering H1 of this year, over a six-month period, 53 companies, including those on the TOKYO PRO Market, and 40 excluding the TOKYO PRO Market, have successfully launched their IPOs on TSE.

We are also working to promote IPOs, offering programs for the management of companies aiming for an IPO, with the aim of sharing knowledge about IPOs and networking with IPO supporters in each region, starting from FY2022. I myself promoted this program when I was stationed in Osaka, in cooperation with Osaka Prefecture and the city. We plan to conduct similar activities in new regions in the future.

On the other hand, it is also true that there are some concerns about the actual situation of IPOs regarding company size, the amount of funds raised, and investor attributes. Therefore, we are planning to discuss these issues as an agenda in the follow-up council in the future.

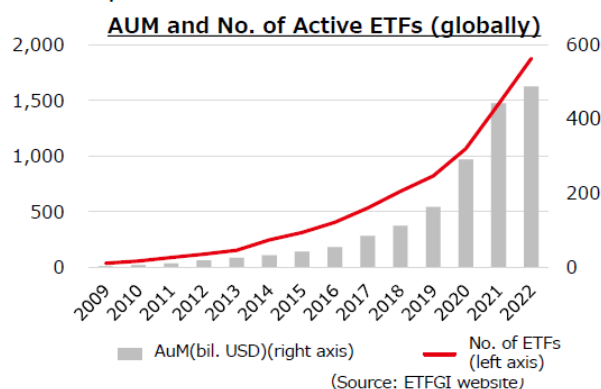
No. of ETFs (left axis) for Actively Managed ETF



- The market size for **actively managed ETFs, which do not track underlying indicators**, is expanding globally.
- Active ETFs respond to the needs of investors who expect flexibility in product creation and management by investment management firms and they enable management companies to flexibly structure and manage products.
- TSE has developed listing rules for actively managed ETFs, **effective June 30**, in order to maintain and improve its international competitiveness by establishing a system to provide products that accurately meet diversified investment needs.

Global Expansion of Active ETFs

- **Steady growth** in total assets and the number of active ETFs globally
- The development of listing rules has become a pressing priority to **maintain and improve international competitiveness**.



Characteristics and Comparison of ETFs

	Existing Product Index-linked ETF	New Product TSE Active ETF	(Reference) Active ETF
Listing	Listed		Unlisted
Trading Price	<u>Market price (real-time basis)</u>		Base Price
Investment Objective	Following index	<u>Growth of trust assets</u>	
Flexibility	Low	<u>High</u>	
Management Fee	Low	Medium	High
Disclosure of Portfolio	Daily	<u>Daily</u>	Every fiscal year

© 2023 Japan Exchange Group, Inc.

9

This slide is about the ETF market. Last year, we established the ETF Market Development Department and cooperated with related departments within the Company to develop the entire ETF ecosystem, including listing and trading, and the number of ETFs reached 290 in total.

Until now, due to the requirements for listing, only ETFs linked to underlying indicators were available. However, as you can see in the graph on the left, recently, there has been significant diversification in exchanges in the US, Europe, and Asia, and ETFs without underlying indicators, also known as active ETFs, are widely traded among investors.

Therefore, from the perspective of responding to the needs of investors who expect flexible investment by asset management companies, we developed listing rules for active ETFs at the end of last month. Going forward, listings of specific ETFs are expected as early as this fall.

Globally, active management types account for about 5% of the total assets of ETFs. Excluding the portion held by the Bank of Japan, our market is about JPY14 trillion. In the medium to long term, we expect active ETFs to grow to a size of about JPY700 billion.

This concludes the part about our listing-related measures.

Strengthening the Functions of the Cash Equity Market (1)



■ Upgrading the cash equity trading system and revision to trading rule

- To enhance resilience and market participants' convenience, TSE plans to revise trading rules for the extension of cash equity trading hours and introduction of the closing auction, etc. at the time of the arrowhead system upgrade on November 5, 2024.
- To ensure that the new system runs smoothly, we promote information provision to market users and system testing.

Extension of trading hours	<ul style="list-style-type: none">● Trading hours are to be extended by 30 minutes (closing time changed from 15:00 to 15:30 (JST)) to strengthen resilience and given that the current trading hours are relatively short compared to European, U.S. and other Asian countries.
Revisions to trading rules, etc.	<ul style="list-style-type: none">● Closing auctions are to be introduced to improve transparency of closing price formation and other processes, as the afternoon close has become increasingly important amid the trend toward passive investment.● A globally-used way of disseminating market information, Market By Order, is to be introduced to enhance convenience of trading by providing more detailed order information.
Strengthening resilience	<ul style="list-style-type: none">● The time it takes to reboot the system is to be shortened (from 3 to 1.5 hours).

From here, I would like to explain our measures related to trading.

At TSE, we are planning to upgrade our cash equity trading system in November 2024. In line with this, we are also planning to revise some trading rules from the perspective of enhancing resilience and market convenience. Specifically, there are three points as follows.

The first point is the extension of trading hours by 30 minutes. The trigger for this consideration was a suggestion we received at the Council for Recurrence Prevention Measures in response to the system failure in October 2020. Even if a failure occurs in the future, we should slightly extend the trading hours to ensure trading opportunities on the day of the occurrence. Based on this, as a result of discussions with market users afterwards, we have decided to extend both auction and off-auction trading by 30 minutes each.

The second point is that, as passive investment progresses further, the afternoon close has become increasingly important. However, in response to the frequent occurrence of situations where the closing price is not formed at the afternoon close, we have been taking measures to double the executable price range at the close since 2019. However, in order to further improve the transparency of closing price formation and improve trading opportunities, we have decided to introduce the so-called closing auction this time.

In addition, we are also planning to introduce a new method called Market By Order, which allows you to understand not only the total quantity of orders at each price, but also the quantity of each order.

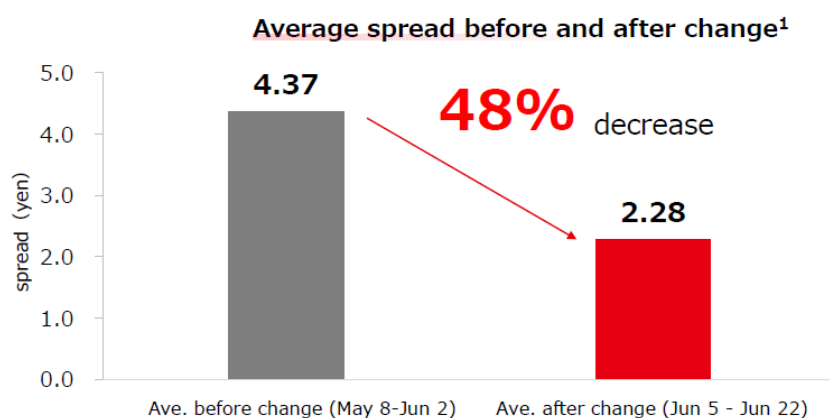
The third point is further strengthening resilience in response to the aforementioned system failure. Even if a failure occurs, we plan to shorten the time it takes for the system to be able to accept orders again, including the time required for system reboot, from the current level of about three hours to half of that.

We published the guidelines for these system changes in May of this year. In the future, we will revise the rules and encourage related parties to change their current administrative procedures. However, as there are also practical concerns, we will strive to explain and disseminate information to all market users.

Considering the recent trading trends of so-called opportunistic investors, who trade when the market is open and prices are volatile, as well as the extent of the extension in trading hours, we anticipate an increase of around 4% to 5% from the present trading amount. Furthermore, we foresee an additional revenue of approximately JPY2 billion from combined trading fees and clearing fees.

■ Optimization of tick sizes for medium-liquidity issues

- In order to enable investors to execute trades at better prices, TSE optimized tick sizes for medium-liquidity issues (TOPIX Mid400) whose costs related to bids and offers had remained high from a global perspective. (adopted the same table as the TOPIX 100)
- By introducing smaller tick sizes, the spread (difference between bid and offer prices) was lowered.
- Average spread decreased by 48% in the period following this measure



(Source : Tokyo Stock Exchange)

¹ Calculated on time-weighted average of the difference between the best offer price and the best bid price. Average value of TOPIX Mid400 constituent stock is used.

Finally, in order to reduce the cost of order execution, TSE has been striving to optimize tick sizes to narrow the spread between bid and offer prices. This started with TOPIX100 issues in 2014 and extended to ETFs in 2021.

However, even for medium-liquidity issues like TOPIX Mid400, the tick size remained high from a global perspective, and the cost borne by investors was high. Therefore, we started to revise and optimize the tick sizes from June 5th of this year.

Although it's been a limited period since this measure was implemented, the average spread has decreased by about 48% compared to before the change. Also, when we look at the effective spread, which is the difference between the actual execution price and the prevailing price, we can confirm that it has decreased by about 40%. We believe that we have been able to achieve the initial expected situation.

This concludes the explanation of the materials we have prepared.

Question & Answer

Yaguchi : Now, let's move on to the Q&A session. Please proceed with your questions. Thank you.

Watanabe : I'm Watanabe from Daiwa Securities. Thank you for your presentation. I have two questions.

The first question is about the active ETFs mentioned on slide nine. You indicated that there is potential for growth up to JPY700 billion. I'd like to know about the actual response from asset managers regarding the composition of these ETFs, the expected timeframe to achieve this scale, and the potential impact this could have on earnings. Could you please address this question first?

Iwanaga : As I previously mentioned, there has been an increase in both the trading volume and the number of active ETFs internationally. We have received very positive responses on this front. After we revised the listing rules, we have seen specific listing application movements. We foresee that at least five ETFs will be listed by the end of the year.

However, regarding your question on volume and the corresponding impact on earnings, these are significantly influenced by the market trends. Therefore, the projection of JPY700 billion I mentioned takes into account a mid-to-long term horizon. We don't have any figures regarding the short-term impact on earnings.

Watanabe : My second question concerns the shift in focus towards capital cost and stock prices. This is being requested of listed companies. On the other hand, in JPX's own role as a listed company, I'd like to know what you perceive as your challenges? Could you provide your views, please?

Iwanaga : We perceive a highly positive response to our request for listed companies to conduct their management with a greater awareness of capital costs and stock prices.

We don't think that the current market conditions are solely a result of the TSE's call to action. There are other factors such as geopolitical elements, trends in interest rates in Europe and the US, and inflation trends, among others. Nevertheless, considering the various opinions we've received, we believe that corporate leaders are gradually changing their mindset, albeit slowly.

As for us, ever since the formulation of the corporate governance code, we have endeavored to set a benchmark for other listed companies. Regardless of whether we are achieving this or not, we are committed to this goal. While we don't think that there's anything we've left undone specifically in response to our call, we do aim to continue realizing returns that surpass capital costs and rewarding our stakeholders in the long term.

Watanabe : Thank you very much.

Yaguchi : Over to the left side of the venue, please.

Niwa : I am Niwa from Citigroup Global Markets. I have two questions.

Firstly, about your efforts to expand revenues. You mentioned a couple of revenue growth strategies for this term and beyond, but looking at the long-term, do you still see opportunities for revenue growth through initiatives like market restructuring? Are there still significant opportunities? I would appreciate your thoughts on this. After all, considering the entire group, the upside of cash equity will likely remain a key pillar of revenue. So, I am keen to understand this.

Iwanaga : We have been implementing, and will continue initiatives that directly impact the volume of transactions, such as introducing new products and enhancing usability. Therefore, as you understand, we don't foresee any major changes, and we will continue to pursue the same measures as before.

One point I'd like you to note is the increase in the market capitalization of our listed companies. Our main source of revenue is the product of the number of shares times the stock price. If listed companies manage their businesses well and their stock prices rise, our transaction value increases even if the number of shares remains unchanged. This, in turn, means the core and base of our revenues will expand. Therefore, if corporate executives properly recognize the public attention towards their corporate governance and can continually boost their stock prices, we can anticipate a correlating increase in our revenues as a business entity. This might sound simplistic, but that's the principle.

Niwa : For my second question, and referring to page five here, you've mentioned that the aim of the reform for the Prime Market is to move towards the top, as indicated by the area above the red arrow, which I understand is directly related to your company's performance.

My curiosity lies in understanding what would serve as an interim milestone, or a sign that the structural reform has been achieved, if we were to consider an endpoint? Do you have any particular vision or marker in mind? Or to put it differently, is there a need to continue the reforms until we reach that particular point? I'd like to qualitatively understand the depth of your commitment to this. Given the interest in whether Japanese stocks will surpass their post-bubble peak and continue to rise, I'd appreciate your comments on the intensity of your efforts in this respect. That's the essence of my question.

Iwanaga : To start with the conclusion, we don't have a specific numerical target in relation to what you're pointing out.

However, over a decade ago, before our business combination between Tokyo and Osaka, TSE outlined a three-year medium-term management plan following its group consolidation. At the time, the total market capitalization had not yet reached JPY600 trillion. Based on the continuous growth of Japanese companies, we set out a concept of aiming for a market capitalization of JPY1,000 trillion in our 2008 medium-term plan.

With a desire to support listed companies in enhancing their corporate value, I have reiterated a slogan of the aim of JPY1,000 trillion once again with in our organization since assuming my position in April this year.

A total market capitalization of JPY1,000 trillion now feels within reach as we've already achieved JPY820 trillion. Also, our calculations suggest that when we hit JPY1,000 trillion, the Nikkei Average could be around JPY39,000. So, we are working daily with hope that if we continue to set new high marks, we can realize our dream of reaching JPY1,000 trillion. I'm not sure if this answers your question fully, but I hope you understand our mindset and determination.

Yaguchi : As there appear to be no more questions, we will conclude the Q&A session for the cash equity market. Thank you very much.

Iwanaga : Thank you very much.

Presentation

Yaguchi: Continuing on, Yokoyama will explain about the derivatives market. President Yokoyama, please go ahead.

Yokoyama: Once again, I am Yokoyama from the Osaka Exchange. Thank you for your time.

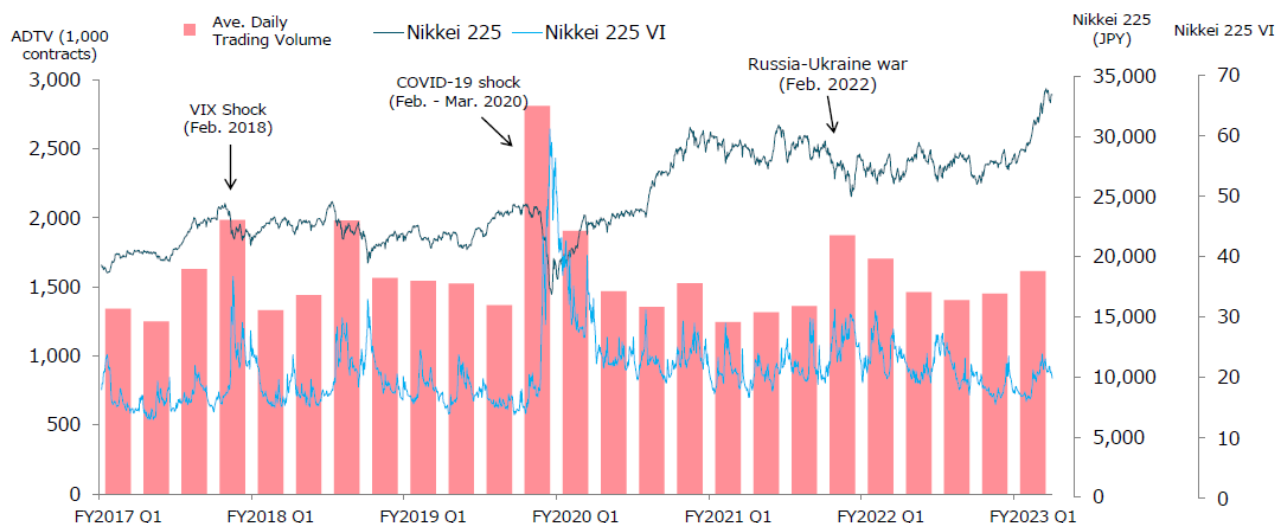
I will explain our recent efforts regarding the derivatives market at OSE and TOCOM.

Overview of Derivatives Market - Overall Trading Volume



- Derivatives trading volume is strongly influenced by market conditions and has a strong correlation with volatility.
- In FY2022, volatility remained generally low and stable, although there were periods of increased volatility due to expectations of a change in monetary policy, and the average daily trading volume was 1.5 million contracts (+60,000 contracts, +4.1% year-on-year).

Derivatives Trading Volume (OSE/TOCOM combined)



Note 1: Trading volume is the average of each quarter.
Note 2: Nikkei 225 and Nikkei VI are daily changes.

Source: QUICK

© 2023 Japan Exchange Group, Inc.

3

Firstly, the overall situation of the derivatives market is illustrated here. The trading volume of derivatives, just like in the cash equity market, is strongly influenced by market conditions, and has a strong correlation with volatility.

Below, we have posted the trading volume and volatility from 2017 onwards, the Nikkei 225 Volatility Index, and the Nikkei 225 stock price index. As you can see, when volatility spikes, trading volume tends to increase as well.

Against this backdrop, in fiscal 2022, the previous year, there were some periods of heightened volatility due to expectations for changes in the Bank of Japan's monetary policy, among other things, but overall, it was relatively stable. However, the daily average trading volume of derivatives was 1.5 million contracts, an increase of about 4% compared to the previous fiscal year.

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	Change of listing status from trial listing to permanent listing of Electricity Futures (TOCOM)
	Trial listing of LNG Futures (TOCOM)
Sept. 2022	Launch of derivatives holiday trading (OSE/TOCOM)
Jan. 2023	JPX Signed MOU with Japan Electric Power Exchange
May 2023	Listing of Nikkei 225 micro Futures and Nikkei mini Options (OSE)
	Listing of Interest Rate (3 -Month TONA) Futures (OSE)
	Listing of Three ESG Index Futures (OSE)

In OSE and TOCOM, we are working on expanding the derivatives market under such circumstances, and I have listed some of our recent efforts.

The derivatives market—I think the same goes for cash equity market—aims to have as many participants as possible. And because there are various types and commodities in derivatives, we aim to list or trade as diverse products as possible, and the volume of rules and transactions is determined by the multiplication of these. Therefore, we are striving to list new products that meet the diverse needs of participants. In addition, we never stop working on improving our system.

Among these efforts, I have listed some of the main initiatives from the last fiscal year and some from this fiscal year. Firstly, in April of last year, electricity futures were permanently listed on TOCOM after a trial listing. At the same time, although this was a trial listing, we started listing and trading LNG futures.

In September, both OSE and TOCOM started holiday trading, which was a major topic.

Then, at the beginning of this year, in January, JPX and Japan Electric Power exchange (JEPX) signed an MOU in relation to electricity.

Furthermore, this fiscal year, in May, we started trading Nikkei 225 micro Futures and mini Options, which are one-tenth the size of traditional products.

On the same day, we initiated trading of the 3-month TONA interest rate futures, which are short-term interest rate futures. Concurrently, we listed ESG futures as well, marking the recent introduction of significant new products.

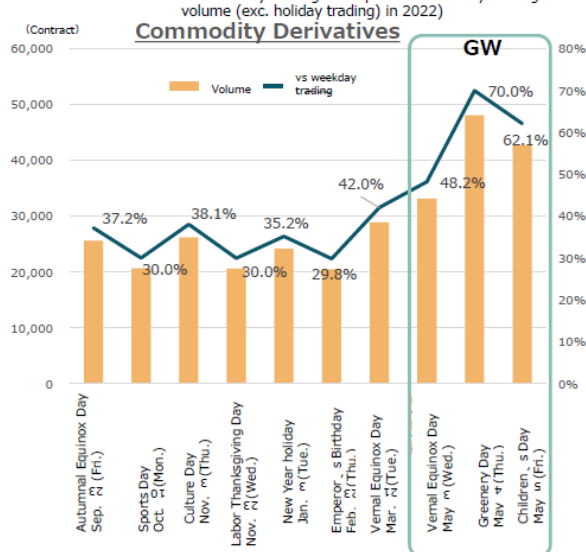
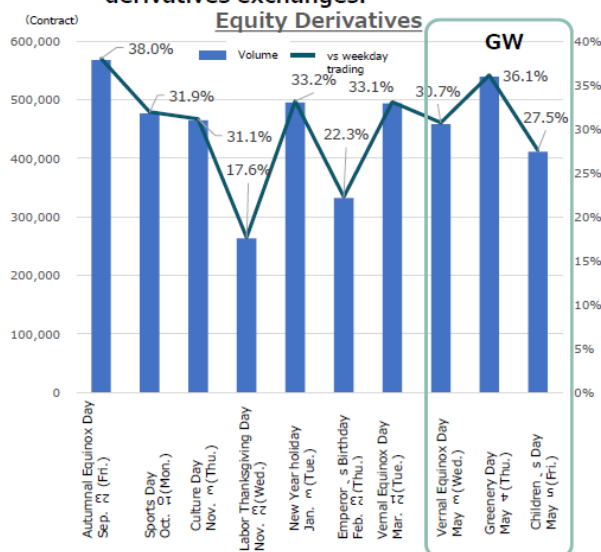
Primarily, focusing on the red letters on this page, I would like to explain the situation in the following pages.

Holiday Trading



- Holiday trading of derivatives started on September 23, 2022 (Autumnal Equinox Day) to further enhance investor convenience by providing hedging opportunities during holidays
- 10 holiday trading days have been conducted with a trading volume of about 30-40% of weekdays

➤ Trading volume exceeded initial expectations based on holiday trading results of overseas derivatives exchanges.



- Several securities companies are currently preparing for and considering participation in holiday trading, and we expect that the investor base will expand further.

© 2023 Japan Exchange Group, Inc.

6

The first thing I would like to talk about is the situation regarding holiday trading.

If we go back in time, there was once a Golden Week period of ten consecutive holidays, during which time the overseas market was naturally open and prices were fluctuating. At that time, there were comments suggesting that the number of holidays in Japan might be excessive. During those ten consecutive holidays, it was pointed out that the continuous holidays might have compromised the hedging opportunities for Japanese investors amidst active overseas markets.

In this context, with the idea that this could be accomplished with derivatives, we decided to start holiday trading of derivatives from September last year, aiming to improve the convenience for investors by providing them with hedging opportunities. We started holiday trading of derivatives on September 23, the Autumnal Equinox Day.

We have not been conducting holiday trading on all holidays, but have excluded necessary ones for system testing and such, and have conducted holiday trading ten times so far.

Below, we have written down the volume of trading on each of these days, for example on the Autumnal Equinox Day or Sports Day, and how much it compares to weekdays. The trading volume is generally around 30 to 40% of weekdays.

It was difficult to predict the trading volume on Japanese holidays in advance, and holiday trading had been carried out in overseas derivative exchanges earlier than us, and the results varied so much from one to another. Based on such factors, we started with the assumption that it would be about 20% of weekdays' trading volume at the time of planning. In this context, we perceive the fact that we are achieving 30% to 40% as exceeding our expectations.

Specifically, in this table, if you look at the part referring to Golden Week, it may seem strange to say "single holiday" trading, but until then we started holiday trading in September, and it only happened on one particular day like Sports Day, not including weekends. So, it was during Golden Week that we first had three consecutive holidays. In this respect, it isn't quite the ten-day stretch that initially prompted the start of holiday trading, but it's a similar situation.

Looking at the data, the trading volume exceeds 30% on consecutive days, though it slightly falls below it a day. Especially, if you look at equity derivatives in blue, the trading volume increased on May 4th, Greenery Day, which you may remember was a day when the New York market plummeted. We believe we achieved the initial goal of giving hedging opportunity on such a day.

Also, looking at commodity derivatives, particularly on May 4th during Golden Week, which I just mentioned, we see that the trading volume was 70% of weekdays. It's conceivable to interpret this as trading in alternative assets increasing in the midst of a stock market crash. In that sense, we believe the introduction of holiday trading has been very effective from the outset.

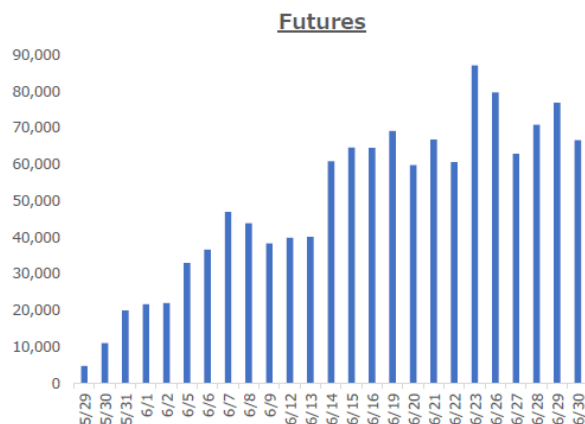
Although holiday trading doesn't involve all participants, the number of securities firms participating has been growing day by day. We've heard that some securities firms are also preparing for future system participation, so if these firms enter the market, we can expect further increases in trading volume. Our goal is to further expand the base of participants.

Listing of Nikkei 225 micro Futures and Nikkei mini Options

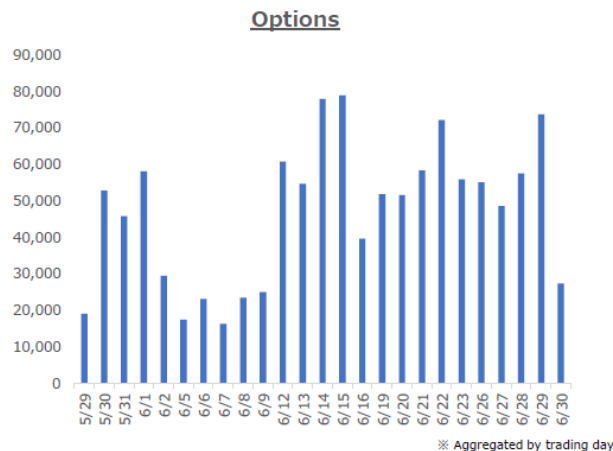


- Listed on May 29 as an entry-level product for those who have not yet used futures and options, in line with the trend toward smaller-lot equity investments.
 - Newly listed products 1/10th the size of conventional products
- Steady increase in volume for both products

(Contract) Trading Volume of Nikkei 225 micro



(Contract) Trading Volume of Nikkei 225 mini



- In order to encourage more investors to use these derivatives, we will continue to promote awareness of the significance and usage of them with the cooperation of securities companies, and aim to increase the number of securities companies that handle these products.

Here we have the Nikkei 225 micro Futures and mini Options, products which are one-tenth the size of conventional products.

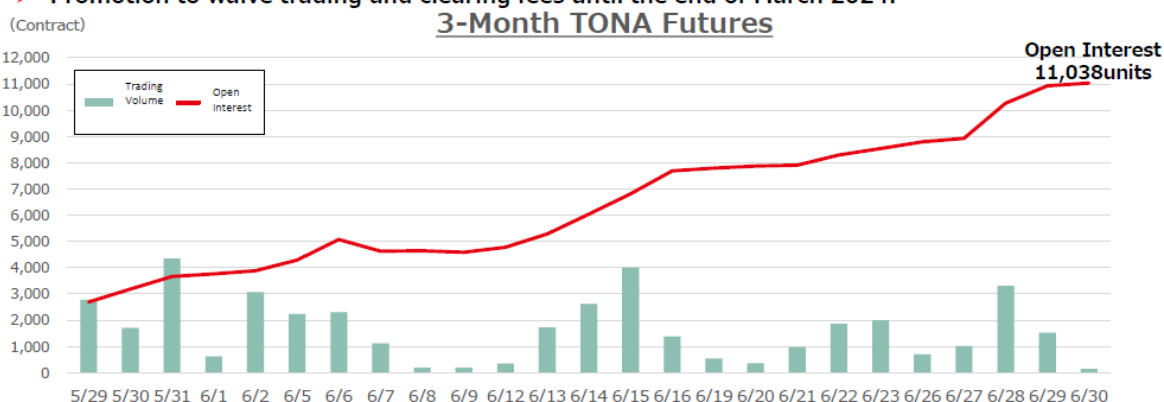
It's often said that stock investments are becoming smaller lot lately. In response to this trend, we listed these new products on May 29th as hedge tools suited for smaller-lot investments and entry-level products for those who have not yet used futures and options before.

Below, we've shown the trading volume. It's always challenging to predict how much volume will materialize in the early stages, but we believe trading has been going smoothly since the beginning and consider this a promising start.

Since these products are intended for entry-level investors, we believe it is crucial to enhance awareness and promote the ways in which derivatives can be traded among this group. This task cannot be accomplished solely by us, so we hope to cooperate with securities firms to spread the word, educate potential traders, and encourage more extensive use of these products. Simultaneously, we aim to expand the number of securities firms dealing with these products.

Listing of Interest Rate (3-Month TONA*) Futures

- On May 29, new short-term interest rate futures were listed given the increased attention to Japanese yen interest rates in Japan and overseas due to interest rate hikes in other countries and rising prices, etc.
 - Provide market participants with the convenience of one-stop trading of short- and long-term interest rate futures along with existing 10-year JGB Futures.
- Daily trading and open interest increased steadily despite limited interest rate movements.
 - Promotion to waive trading and clearing fees until the end of March 2024.



- To expand trading, we will continue to work on improving convenience, including the implementation of a cross margin system that enables investors with positions in interest rate swaps and short-term interest rate futures to reduce their collateral burden.

Note: TONA is an abbreviation for 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 a risk-free alternative to LIBOR.

© 2023 Japan Exchange Group, Inc.

8

Next, I'd like to discuss another new product we introduced on the same day: Short-term interest rate futures, also known as TONA. Until now, we've offered trading in JGB futures, but we didn't have a product focused on short-term interest rates in our lineup.

Japan has long experienced low, zero, or even negative interest rates, with little movement in those rates. However, in light of recent inflation, interest rate increases in other countries, and the change of the Governor of the Bank of Japan, there's been growing attention on movements in the yen's interest rates both domestically and internationally. Given these factors, we decided to list this new product tied to short-term interest rates over a three-month period, as we believe it has significant potential for the future.

As I mentioned earlier, we already offer long-term JGB futures. With the addition of this new product, investors can now handle both long- and short-term interest rate products in one place, at OSE. We believe this offers significant convenience for investors.

As of May, as I mentioned earlier, while there was interest and expectations for future interest rate trends, there was no significant change at that stage, so interest rate movement was still limited.

However, even under those circumstances, as you can see in the lower part of the slide, there were transactions being made every day, and open interest exceeded 10,000 units. Of course, compared to other financial futures, it's still relatively small in scale, but considering the circumstances, we believe it's growing steadily. We recognize that if there are further changes in interest rate trends, this could form a basis for a significant expansion in trading.

At the Japan Securities Clearing Corporation (JSCC), we also deal with interest rate swaps. We're planning to implement what's called a cross-margining system, offsetting positions or margins between short-term

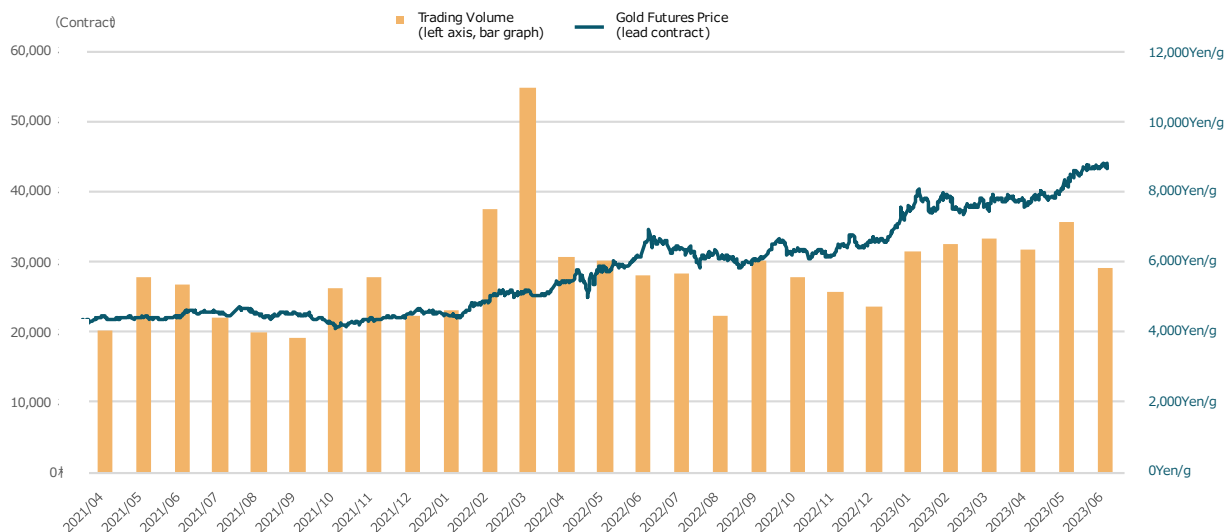
interest rate futures and interest rate swaps. The introduction of this system will enhance the convenience for participants managing these products, and we aim to keep working towards these improvements.

Gold Futures



- Gold has risen to record highs as global inflationary trends drive commodity prices higher.
- Trading volume in Gold Futures, the main product in commodities, also remained at about 30,000 contracts.

Ave. Daily Trading and Price Changes of Gold Standard Futures



- We will capitalize on the momentum of increased investor focus on the gold price to attract more participants to commodity derivatives.

© 2023 Japan Exchange Group, Inc.

9

Next, I would like to talk about commodities. It's a bit difficult to give a glamorous explanation about commodities, as they are not growing as much as we would like.

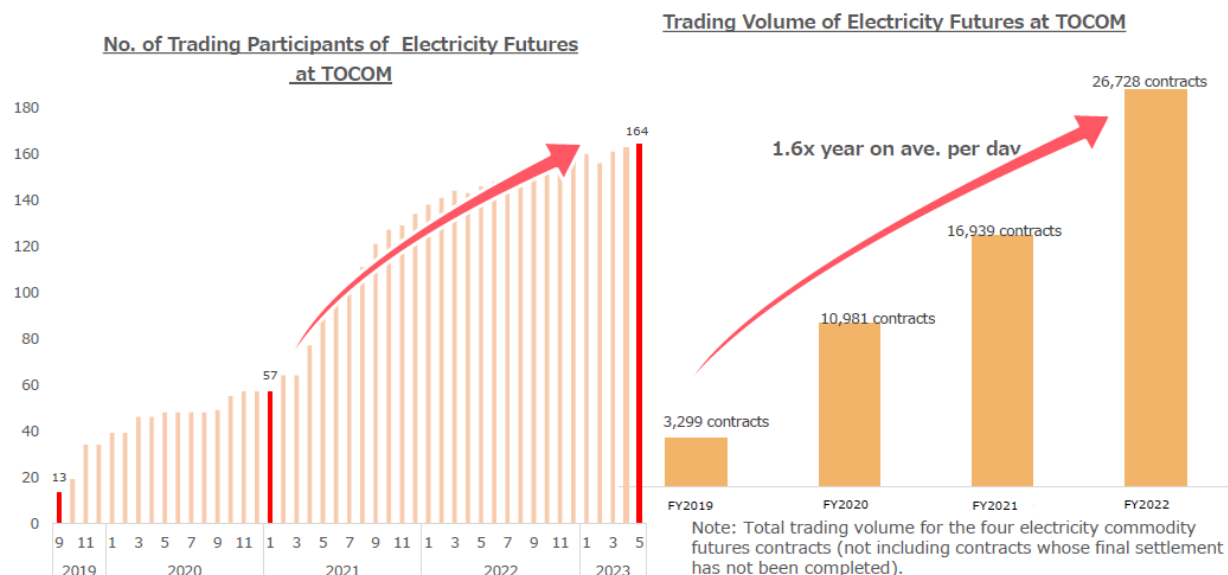
Among the topics, one is the situation with gold futures. As was the case in the holiday trading I mentioned earlier, commodity prices have been rising sharply, and gold, in particular, has risen to near-record high levels. In that sense, I think it is undeniable that the commodity market is on an expansion trend.

Since April, I have received questions about the expansion of the commodity market, but commodities have significantly different characteristics for each product. For example, grains, gold, and crude oil are all commodities, but it is quite difficult to expand them with the same policies or target the same people. Therefore, we believe that gold futures, which are settled in cash, are relatively easy to participate in, and we hope to expand from there.

Electricity Futures



- The number of trading participants in Electricity Futures has increased significantly since the electricity price spike in June 2021, reaching 164 companies (as of the end of May).
- Trading volume also expanded at a pace of 1.6x/year for the FY2019-22 daily average. In the future, we will review the product design and improve the trading specifications to achieve further expansion.



- We will revise the margin system in the fall of 2023 to streamline margin requirements for electricity futures and improve convenience for participants, and add weekly contracts in the spring of 2024 to strengthen the product lineup and improve overall liquidity in electric futures.

© 2023 Japan Exchange Group, Inc.

10

Finally, I would like to talk about electricity futures. Although they are not dramatically expanding, I believe there is no doubt that both the number of participants and the trading volume are on an expanding trend.

Although it is very challenging, we would like to improve the liquidity of electricity futures as a whole by revising the margin system and adding new products like weekly trades, as described in the bottom of the slide.

That's all for my explanation.

Question & Answer

Yaguchi : Now, let's move on to the Q&A session. Please feel free to ask your questions. We'll start with the participant on the right side of the venue.

Watanabe : I'm Watanabe from Daiwa Securities. Thank you for your presentation. I have two questions to ask.

Firstly, regarding the MOU with JEPX, which is mentioned on page four of the materials, it's been approximately six months since its signing. Can you share any progress or results that have emerged from this partnership, and what kind of synergies you are anticipating?

Yokoyama : The MOU with JEPX was finalized in January, so indeed, some time has passed. To begin with, as I explained in the final slide, the electricity market isn't yet at a stage where we can expect significant revenues. So, during the MOU stage, the discussions didn't exactly advance to a point where we had concrete revenue-generating initiatives.

However, since the signing of the MOU, we have received suggestions from market participants that there could be possible synergies in the settlement area, considering the relationship between the spot market and futures market. We're currently investigating these suggestions with JSCC. However, to be honest, we have not yet reached a stage where such potential synergies immediately translate into revenue-generating measures.

Watanabe : Regarding JEPX, as you both operate in the same exchange industry, is there a possibility that the collaboration could lead to a capital partnership in the future?

Yokoyama : While anything could happen in the very long term, we currently have no specific plans for such a partnership.

Watanabe : My second question is about the TOCOM headquarters building in Nihonbashi. I have seen reports about demolition. How do you plan to utilize this asset going forward? I noticed that the Company's financial plan for this term includes anticipated profits from other revenues, and I am wondering if there might be some connection to the property. I would appreciate if you could share any strategies or plans regarding the use of your real estate assets.

Tabata : I'd like to address this question.

As you mentioned, there have been newspaper reports, and if you visit the building site, you'll indeed see that demolition signage is already in place. We've also received media inquiries about this. This matter relates to the sale of our fixed asset.

However, in terms of the proceeds, it doesn't reach a level that would necessitate a timely disclosure, so we will not be issuing one. Nonetheless, it will be included in the financial results for the first quarter. The specifics of this matter will depend on what we are able to share after the financial results are released. At that time, we'd be happy to answer any further questions you might have.

Watanabe : That's perfectly clear. Thank you.

Yaguchi : Thank you as well. Let's proceed to the next question.

Niwa : This is Niwa from Citigroup Global Markets. I have two questions.

Firstly, with regard to potential growth in derivatives within the commodities sector, I would appreciate if you could explain your thoughts, specifically referencing page 12. Given the current market conditions and participant appetites, could you provide some insight into what we might expect in the commodities sector over the next 12 or 24 months? I acknowledge that your initiatives are progressing steadily, but I'm interested in seeing a more significant leap forward. From that standpoint, could you please outline some key milestones or checkpoints we should be looking out for? This is my first question.

Yokoyama : To be quite frank, we haven't seen any significant leaps or notable increases in the commodities sector over the next six months. That's just the state of things at the moment.

However, we've recently launched new products such as mini-products, and we're actively exploring if there are other products that can demonstrate significant growth potential. Rather than focusing only on commodities, we at OSE are putting our attention towards equity options. Equity options have been around for a long time, and haven't shown any major growth. That said, looking at the current state of the cash equity market and the anticipated extensive expansion of NISA next year, I believe there is a significant shift in the investment landscape, particularly among individual investors who hold cash equities.

Also, as I've been making rounds and visiting various locations, I've recognized that both domestic and foreign securities companies, as well as overseas market makers, have high expectations for equity options. These are showing considerable growth abroad.

So, we're combining this positive momentum and these high expectations to strategize on how we can enhance this area. As the derivatives market, I think there's a lot we can anticipate. We're now working to understand why these aren't growing in Japan, identifying and tackling the challenges one by one.

While this doesn't directly address your question about commodities, one area where we anticipate growth or upside is here, in equity options.

Niwa : My second question, and I apologize for its broadness, is about the revenue mix between cash equity and derivatives. In a long-term perspective, what mix is considered desirable, and to what extent do you think it can be achieved in the next medium-term plan? I would appreciate your thoughts on the ideal balance and immediate goals.

Yokoyama : In terms of the revenue balance across the entire JPX, our primary strategy outlined in our medium-term plan is not to be overly reliant on the market, whether it's cash equity or derivatives. These sectors undoubtedly constitute a large proportion of our revenue.

We are planning to gradually decrease this proportion while shifting towards other more stable revenue sources, such as the data business, as will be explained in the next section. So, we do have this overall sense of balance. As our total revenue grows, we anticipate the proportion attributed to market-dependent areas to slowly decrease.

Therefore, it's hard to say exactly what would be the most appropriate balance, but that's the general direction we're heading in. When it comes to the market itself, I think the ideal scenario would be to expand each sector— cash equity and derivatives—to increase the overall revenue, and if possible, slightly reduce their individual proportions.

Considering the various measures discussed earlier, I believe our primary mission is to increase the weight of the derivatives sector of OSE and TOCOM. However, I think it would be an ideal situation for JPX as a whole if this proportion slightly decreases in the broader context.

Yaguchi : Thank you very much. With that, we will conclude the Q&A session on the derivatives market.

Yokoyama : Thank you very much.

Presentation

Yaguchi: Next, we'll discuss data and digital services. Miyahara will explain this. President Miyahara, please go ahead.

Miyahara: Thank you. I am Miyahara from JPXI.

At last year's business briefing, given the recent establishment of JPXI, I explained the positioning of JPXI within the JPX Group and JPX's medium-term management plan, as well as the initiatives we intended to take on. Today, I'd like to update you on the progress of these various initiatives, so I appreciate your attention.

Today, I will cover two major points regarding various initiatives. One is the progress of various initiatives related to index and data services, and the second point is about various initiatives related to DX, or digital transformation. I will explain the progress of these initiatives.

New index: JPX Prime 150 Index



- Started calculation of the **JPX Prime 150 Index, a new stock price index focusing on value creation** from July 3, 2023.
- From the **top 500 companies listed on TSE Prime Market by market capitalization**, which are subject to high corporate governance standards, **150 companies were selected with a focus on their value creation**. Value creation is estimated using two indicators: **equity spread** (ROE – cost of equity capital), which is an evaluation of financial and other fundamentals, and **PBR**, which is a market valuation that includes future information and nonfinancial information.
- The index is designed to help investors see which of the leading Japanese companies are expected to create value, and to make the index and its constituent stocks the target of medium- to long-term investment by institutional and individual investors in Japan and abroad. This will then contribute to the expansion of valuebased management and will increase the appeal of the Japanese stock market.

JPX Prime 150 index concept

Index composed of leading Japanese companies that are estimated to create value

Stock selection method for 150 companies

Screening by market capitalization

- Top 500 stocks by market capitalization among all Prime Market issues as of the rebalance base date.
- Excludes stocks that do not meet continued listing criteria and stocks designated as Security to Be Delisted.

✓ Selection of value -creating companies from two aspects: equity spread and PBR

Selection 1
Estimated equity spread Criteria

- Select companies that are estimated to create value based on their financial performance
 - Top 75 companies in terms of estimated equity spread (= ROE – Cost of Capital)

Selection 2
PBR Criteria

- Select companies that are estimated to create value based on market valuation
 - The top 75 companies by market capitalization among stocks with P/B over 1x, excluding those selected based on selection 1 above.

First, I'd like to explain about a new index, the JPX Prime 150 Index. We just started calculating the JPX Prime Index this week, on Monday, July 3rd.

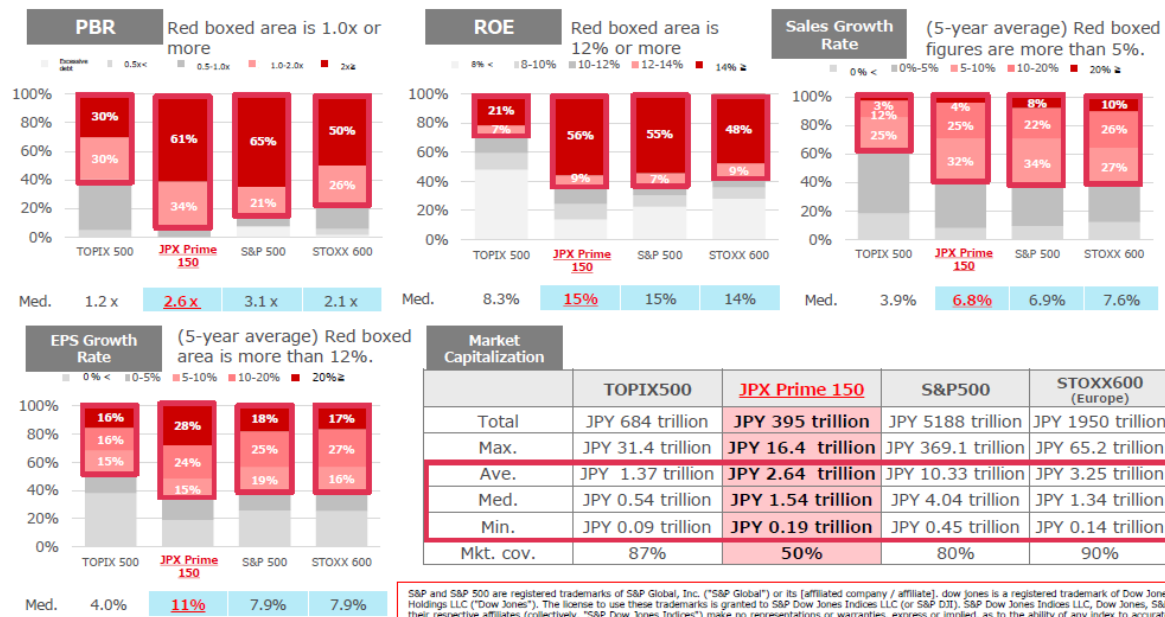
This index selects 150 companies that are expected to create value, out of the top 500 companies by market capitalization listed on the Prime Market. For the estimation of value creation, we use two indicators, the equity spread and the Price-to-Book Ratio (PBR), to select the stocks.

The main purpose of developing this index is to help investors see which of the leading Japanese companies are expected to create value, and to make the index and its constituent stocks the target of medium- to long-term investment by institutional and individual investors in Japan and abroad. This will then contribute to the expansion of value-based management and will increase the appeal of the Japanese stock market.

Comparison of the new index with U.S. and European indices



- Distribution of component stocks in terms of PBR, ROE, growth ratio, and market capitalization, are globally comparable to the major U.S. and European indices (S&P 500, STOXX 600)



(Source: Bloomberg, as of May 16, 2023)

S&P and S&P 500 are registered trademarks of S&P Global, Inc. ("S&P Global") or its [affiliated company / affiliate]. Dow Jones is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). The license to use these trademarks is granted to S&P Dow Jones Indices LLC (or S&P DII). S&P Dow Jones Indices LLC, Dow Jones, S&P Global, and their respective affiliates (collectively, "S&P Dow Jones Indices") make no representations or warranties, express or implied, as to the ability of any index to accurately represent the asset classes or market sectors it purports to represent, and S&P Dow Jones Indices and its third-party licensors make no representations or warranties whatsoever as to the accuracy of any index or the data contained therein. S&P Dow Jones Indices and its third-party licensors shall not be liable for any errors, omissions, or interruptions in the Index or the data contained therein. Past performance is not an indication or guarantee of future results. STOXX Limited ("STOXX"), Deutsche Börse Group and its licensors, research partners or data providers make no warranties or representations regarding the timeliness, sequence, accuracy, completeness, currentness, merchantability, quality or fitness for a particular purpose of its index data and exclude any related Neither STOXX, Deutsche Börse Group nor its licensors, research partners or data providers are providing investment advice through or in connection with the publication of the Index. In particular, the inclusion of companies in the index, their weighting, or the exclusion of companies from the index does not reflect the opinion of STOXX, Deutsche Börse Group and its licensors, research partners or data providers as to the performance of such companies. Financial instruments based on the STOXX or DAXR indices are not sponsored, endorsed or promoted by STOXX, Deutsche Börse Group, its licensors, research partners or data providers in any way.

© 2023 Japan Exchange Group, Inc.

5

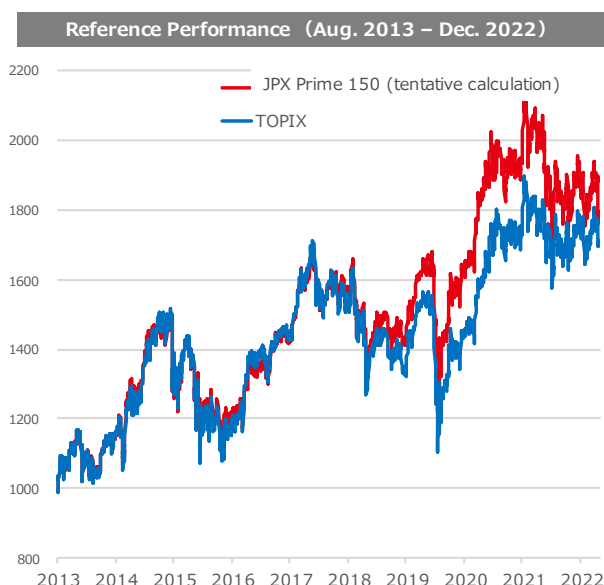
The distribution of component stocks in terms of PBR, ROE, growth rate, and market capitalization, are comparable to the major US and Europe indices such as the S&P500 and the STOXX600. Therefore, we believe that it could be a viable investment target for foreign investors as well.

If you look at the second column from the left, it shows the status of the JPX Prime 150, with the S&P500 next to it, and the STOXX600 next to that. If we disregard market capitalization, you'll see that all of them are at comparable levels.

Regarding market capitalization, please refer to the graph at the bottom right. Compared to the component stocks of the S&P500, it is quite modest, but it is roughly on par with the STOXX600.

On the next page, I'll explain the performance of the new index. But if you look at the market coverage rate, the Prime 150 Index is at 50%, so we expect it to show performance different from benchmarks like the TOPIX.

Reference performance of the new index, etc.



(Note 1) Record date August 29, 2013 at 1,000 points.
 (Note 2) The "JPX Prime 150 (tentative calculation)" is an estimation model based on the assumption that the initial selection was made in 2013 and the priority rule for the stocks used in the previous year was applied in the rebalance. It does not have continuity with the "JPX Prime 150 Index," which will be initially selected with May 26, 2023 as the base date and will be calculated from July 3, 2023.

Top 10 Companies (May 16, 2023)						
	JPX Prime 150			TOPIX		
	Code	Issue	Weigh	Code	Issue	Weight
1	6758	Sony Group	5.6%	7203	Toyota	3.5%
2	6861	Keyence	4.2%	6758	Sony Group	3.0%
3	9432	NTT	3.3%	6861	Keyence	2.2%
4	4568	Daiichi Sankyo	2.6%	8306	Mitsubishi UFJ	1.8%
5	4502	Takeda	2.5%	9432	NTT	1.8%
6	6501	Hitachi	2.4%	4568	Daiichi Sankyo	1.4%
7	7974	Nintendo	2.3%	8316	Sumitomo Mitsui Financial Group	1.4%
8	8035	Tokyo Electron	2.2%	4502	Takeda	1.3%
9	9433	KDDI	2.1%	6501	Hitachi	1.3%
10	7741	HOYA	2.1%	7974	Nintendo	1.2%

Tracking Error vs TOPIX *	
Index	Tracking Error (TE)
TOPIX	—
TOPIX500	0.66%
JPX Prime 150	3.2%

* Degree of deviation of returns from TOPIX (annualized standard deviation of return differences. Estimates by JPX)

Here is the performance of the new index for reference. If we calculate its performance retroactively for nearly the past 10 years, we get the graph on the left.

As I just explained, in addition to having a quality level on par with global standards, as you can see, the top 10 weighted stocks are different in three stocks, and the tracking error is 3.2%. We believe these characteristics, which are different from those of TOPIX, are key points of this index.

■ Revision status

- Breakdown of TOPIX constituents by market segment

(May 31, 2023)

	All	Prime	Standard	Growth
The Number of TOPIX Constituents	2,157	1,831	326	0

- The transition accompanying the revision of the calculation method for the free-float weight will be implemented and completed in three stages in April, May, and June 2022.
- Actions to TOPIX phased weighting reduction constituents **is progressing on schedule**
 - In October 2022, published phased weighting reduction constituents (stocks with tradable share market capitalization of under JPY 10 billion) . Implementing a gradual weighting reduction from the end of October 2022 to the end of January 2025.
 - October 2023, the results of the re-evaluation of TOPIX phased weighting reduction constituents are scheduled to be announced.

■ Future initiatives

- The rules for selecting TOPIX constituents after the completion of this transition will be decided by the end of this year, after soliciting a wide range of opinions during the Index Consultation, and **by the summer of next year.**

Next, I will explain the status of the current TOPIX revision. The key point of this revision, as you all know, is to enhance its function as an investment target. We are detaching TOPIX constituent stocks from market segmentation and progressively excluding stocks with a tradable share market capitalization of under JPY10 billion.

As you can see, we are proceeding as scheduled. Given that assets linked to TOPIX have already exceeded JPY80 trillion, we are striving to transition while minimizing market impact as much as possible.

The rules for selecting TOPX constituents after this is completed will be published in a draft form with the aim of doing so by the end of the year. We plan to solicit wide range of opinions during Index Consultations and decide by the summer of next year.

Development of new indexes, etc.



- Launched the S&P/JPX 500 ESG Score Tilt Index, an index based on the TOPIX 500 and using an ESG score determined by comprehensively considering ESG factors, and the FTSE JPX Net Zero Japan 500 Index, an index specializing in the environment.
- Began calculating the Kyodai Kawakita/JPX Japan Index as an index designed to contribute to long-term investment in Japanese equities.
- We will continue to focus on the promotion and creation of financial products for these indices, as well as developing indices that meet the needs and current trends of the market.

	S&P/JPX 500 ESG Score Tilt Index	FTSE JPX Net Zero Japan 500 Index	Kyodai Kawakita/JPX Japan Index
Feature	ESG Composite	Environment-specific	For long-term investment
Universe	TOPIX 500	TOPIX 500	All companies listed on the TSE
Concept	<ul style="list-style-type: none"> ✓ Based on the S&P DJI ESG score, the objective is to improve the ESG score compared to the underlying index. ✓ The composition ratio will be weighted according to the score while maintaining industry and sector neutrality. 	<ul style="list-style-type: none"> ✓ In line with the EU's Climate Transition Benchmark (CTB) standards, aiming to achieve "net zero" in assets under management by 2050. ✓ The weights of constituents are adjusted to meet the respective targets for carbon emissions, fossil fuel reserves, green revenues, etc. 	<ul style="list-style-type: none"> ✓ Developed to contribute to long-term investment in Japanese equities with the goal of achieving above-market average performance. ✓ Kyoto University selects constituents based on sales growth rate, profitability of products and services (uniqueness), efficiency of invested capital, efficiency of shareholders' equity, capital structure, level of overseas development capability, and stability of these criteria. ✓ Equal weighting
Calculation Commence Date	March 28, 2022	April 21, 2022	January 30, 2023

© 2023 Japan Exchange Group, Inc.

8

Let me also talk about the development status of other new indices. First, we have two indices related to ETFs. We have developed the S&P/JPX 500 ESG Score Tilt Index with S&P, based on TOPIX500 and using a score that comprehensively considers ESG.

Another one is the FTSE JPX Net Zero Japan 500 Index, which we launched in April last year in collaboration with FTSE, as an index specializing in the environment.

Most recently, in January of this year, we began calculating the Kyodai Kawakita/JPX Japan Index as a new index aimed at promoting long-term investment in Japanese equities, in collaboration with Professor Kawakita from Kyoto University.

In any case, we intend to proactively promote the incorporation of these indices into financial products going forward.

■ Approach policy

- Challenge ourselves to diversify dissemination content and methods to meet the growing demand for automated data processing.
- Aiming to further enhance investment-related information and promote its utilization based on cooperation with various stakeholders.
- Enhance ESG-related information, for which demand is expected to increase.

■ Main initiatives

1	Diversification of Dissemination Contents and Methods	Release of API Distribution Service J-Quants API (Paid Version) for Retail Investors (April 2023)
		Promote the use of HTML for earnings reports (from Dec. 2021)
2	Expansion and Improvement of Listed Company Information	Capital and business alliance with Minsetsu, an IR communication platform called "Minna no Setsumeikai" (everyone's briefing) (October 2022)
		SCRIPTS Asia, a Japanese-English event transcript provider, became a wholly-owned subsidiary (February 2023)
3	Creation of ESG- related Services	Launch of ESG Bond Information Platform (July 2022)
		Launch of "JPX Listed Company ESG Information Web" (October 2022)

Starting from this page, I will explain our initiatives regarding our data service business.

Currently, we have three major initiatives underway. The first is diversification of dissemination content and methods, the second is expansion and improvement of listed company information, and the third is the creation of ESG-related services. Based on these three pillars, we are currently developing our data services business.

First, regarding the diversification of dissemination content and methods. In terms of diversifying distribution content, since April of this year, we have started providing J-Quants API as a service for retail investors interested in quant trading. Traditionally, as you know, JPX's business has been mainly B-to-B, but one of our initiatives is to expand into the B-to-C business.

In terms of diversifying dissemination methods, we are promoting the use of HTML format for earnings reports, and with the cooperation of external institutions, HTML conversion has already been implemented by 70% of all listed companies. This allows investors to easily process large amounts of data through machine processing, which we believe will lead to smoother order placements.

The second initiative involves expansion and improvement of listed company information. First, we have entered into a capital and business alliance with Minsetsu, a company that primarily operates an IR communication platform.

Furthermore, as mentioned earlier by the moderator, in February of this year, we made SCRIPTS Asia a wholly-owned subsidiary. SCRIPTS Asia provides services to deliver transcripts of IR briefings, including English translations, to investors in a short period of time.

We believe that these capital and business alliances and the full acquisition of subsidiaries will lead to the revitalization of TSE market and the expansion of orders in the Japanese stock market by promoting engagement between listed companies and investors.

The third initiative is the creation of ESG-related services. Last year, we launched two platforms in this area. One is the ESG Bond Information Platform launched in July, and the other is the JPX Listed Company ESG Information Web launched in October.

Our aim with these platforms is to make it easier for investors and other information users to access ESG-related information, thus improving the convenience of the market. Furthermore, we are considering adding ESG-related information with more added value to these two platforms in the future.

Digital Asset Initiatives



Approach policy

- Strengthen relationships with key players in the digital asset ecosystem
- Aiming to create digital asset-related businesses in the area of digital bonds for institutional investors.

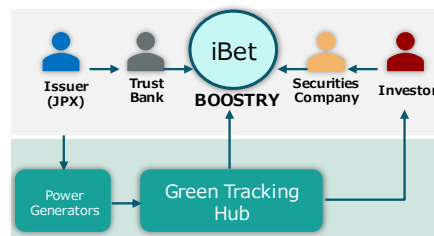
Main initiatives

Strengthen relationships with key ecosystem players

Area	Target	Initiative
Security Tokens	iBet (BOOSTRY)	• Digitally Tracked Green Bond issued (June 2022)
		• Capital Participation (March 2023)
Digital Currency	Progmatt (Mitsubishi UFJ Trust and Banking)	• Consortium participation (June 2022)
		• Start considering establishing a JV (from December 2022)
	Digital Currency Forum (DeCurret DCP)	• Forum participation (June 2022)

Moving Toward the Use of Digital Bonds

- Issued Japan's first institutional x security token x ESG investment bond, **Digitally Tracked Green Bond** (June 2022)
- Establish a green tracking hub that discloses automatically measured data from power generation facilities to investors (August 2022).



- Study panel on the use of digital bonds in ESG investment held from September 2022 (64 companies/organizations participated). Final report was published in April 2023.

From here, I would like to explain various measures related to DX, or digital transformation.

As you know, in recent years, the advancement of digital technology has led many companies to expand new services and businesses utilizing digital technology. We JPXI are also planning to develop a variety of products, such as digital assets, and new services.

We currently have two policy focuses for digital transformation. One is to strengthen our relationships with key players in the digital asset ecosystem. If you look at the main initiatives on the left, you can see that we are working to strengthen relationships in the field of security tokens and digital currencies.

One initiative is a capital participation we made in March of this year in BOOSTRY, which operates iBet, a platform for security tokens. We are using iBet in cooperation with BOOSTRY in the Digitally Tracked Green Bond scheme, as you can see on the right side of the slide.

The second initiative involves our participation in Progmatt, a consortium for the co-creation of digital assets led primarily by Mitsubishi UFJ Trust and Banking. Currently, we are working with seven partner companies to explore the establishment of a joint venture.

The third initiative is our participation since June of last year in the Digital Currency Forum, where DeCurret DCP serves as the secretariat.

It's challenging to predict how the digital securities market will evolve in the future. Still, we believe that continuing to build relationships with related business operators and striving to collect more information will be beneficial.

The second focus is the use of digital bonds. We issued the first security token-backed ESG bond for institutional investors in Japan, known as the Digitally Tracked Green Bond, in June of last year.

In this issuance scheme, we built a green tracking hub that discloses automatically measured data from power generation facilities to investors. We believe this could be very helpful in preventing so-called greenwashing. We developed a system that automatically obtains and records power generation and CO2 reduction data for investors to refer to.

Based on these activities, we called for the establishment of a study panel on the use of digital bonds in ESG investment in September last year, using the knowledge gained from this initiative. We had active discussions with 64 entities, including issuers, institutional investors, financial institutions, and law firms, and published a final report in April of this year.

In these discussions, we shared information with many participants about the potential uses of the Digitally Tracked Green Bond and the challenges of spreading the use of digital bonds, including this scheme. Looking forward, we aim to work on solving these challenges in cooperation with related institutions.

Sustainability Promotion Initiatives



- Sustainability promotion is something that should be addressed by JPX as a market operator and as an operating company as a whole, but the measures that JPX Market Innovation & Research, Inc. will focus on will include strengthening functions related to the **dissemination and collection of ESG-related information and ESG-related index providers.**

ESG Bond Information Platform	<ul style="list-style-type: none">• Developed the “ESG Bond Information Platform”, which compiles information on ESG bonds issued through public offerings.• Establishment of “JPX Listed Company ESG Information Web”, a centralized collection of ESG-related information on listed company.
ESG Investment Products Enhancement	<ul style="list-style-type: none">• Issuance of Digitally Tracked Green Bonds.• Providing a “Green Tracking Hub” website for visualization of greenness indicators. <ul style="list-style-type: none">• Calculate and publish stock price indexes that incorporate ESG factors• Listing of ETFs and ETNs linked to ESG-related stock indices• Developing an “infrastructure fund market” to invest in renewable energy generation facilities.

Finally, as I’ve explained so far, promoting sustainability and ESG-related matters are extremely important for us at JPX Group, both as a market operator and as an operating company.

As for the initiatives led mainly by JPXI, we are focusing on strengthening functions related to the dissemination and collection of ESG-related information, as well as the calculation of ESG-related indices. Going forward, we aim to actively promote these ESG-related businesses, which is also an issue that JPX should address as an operating company.

That concludes my presentation. Thank you very much for your attention.

Question & Answer

Yaguchi : We will now move on to the Q&A session. We welcome your questions. We'll start with those present in the room. Please go ahead.

Watanabe : This is Watanabe from Daiwa Securities. Thank you for the presentation. I have two questions.

First, in relation to digital assets on page 11 of the materials, do you have any vision or developments that you can share about creating a market for security token trading, perhaps in terms of listed products? Also, SBI is leading the charge with ODX and they have expressed a keen interest in digital assets. Can you provide any updates on how your group plans to demonstrate its advantages in this field?

Miyahara : Currently, most security tokens issued are fractionalized real estate products and corporate bonds. For institutional investors, the primary product is the Digitally Tracked Green Bond we launched, as explained earlier.

A key challenge that has surfaced during our study panel sessions was the lack of a liquid secondary market. In other words, once investors have purchased these tokens, they essentially hold onto them indefinitely since there aren't many options for cashing out, barring securities firms stepping in to buy them. We believe that the vibrancy of the primary market, or the issuance market, will organically stimulate demand in the secondary market.

So, from that perspective, we anticipate that if the digital bond market—specifically those bonds tied to ESG considerations that cater to institutional investors—becomes more active, it could lead to the emergence of a secondary market. Naturally, this progression is likely to generate demand. Our aim is to continue fostering this area while addressing the various associated challenges.

Watanabe : My next question is about your growth investments. Could you discuss any potential opportunities for inorganic growth within the information sector? You've previously expressed a proactive stance towards mergers and acquisitions in this area during your medium-term plan, but I have the impression that the opportunities surfacing tend to be on the smaller side. When seeking larger-scale opportunities, what challenges do you encounter? Are the issues mainly around pricing, a lack of suitable prospects, or are there regulatory hurdles that complicate matters? Could you please elaborate on these challenges?

Miyahara : As you know, Watanabe-san, the LSE has taken over Refinitiv and NASDAQ also has made considerable purchases recently.

One of our strategies has been to establish JPXI, and we're undertaking initiatives in areas that traditional exchanges and clearing corporations have traditionally found challenging.

That being said, we have to plan our future business activities considering certain regulatory requirements. For the time being, as I described earlier, we're intending to dedicate resources towards enhancing efficiency and competitiveness across the market. We aim to do this by building collaborative relationships with external organizations that have unique services and expertise related to securities and markets.

Furthermore, we've recently invested in Minsetsu and acquired SCRIPTS Asia. Additionally, within our corporate family, we have a company named ICJ, which provides a platform for electronic voting. Each of these three organizations has various initiatives that bridge the gap between investors and listed companies, and each holds a significant amount of data. There have been discussions among these three entities to

consider how we can provide higher-value data for both listed companies and investors. Hence, we're looking to continue placing an emphasis on expanding our data business in these sectors.

Watanabe : Thank you very much.

Yaguchi : Thank you as well. Let's move on to the next question from the audience.

Niwa : I'm Niwa from Citigroup Global Markets. I'd like to ask two questions, both of which are follow-ups to Watanabe-san's questions regarding external growth.

For my first question, considering your current operational scope, I perceive that there might not be a lot of substantial investment opportunities. Is this understanding correct?

Linked to this, my second question is more of a theoretical discussion. You indicated your focus on immediate concerns. However, global counterparts like NASDAQ, for example, have expanded their acquisition targets to even include the software industry. Why isn't JPX considering such sectors as potential targets? Could you please provide some clarity on this matter?

Miyahara : I think it is difficult to define whether the potential investment targets are large or not—it could refer to the amount or even the nature of the investment. We operate within the structure of the Financial Instruments and Exchange Act, which determines our related and auxiliary businesses. Within this context, while JPXI is neither an exchange nor a clearing corporation, it's not straightforward for us to invest in or acquire entities in the so-called IT industry, similar to LSE or NASDAQ, due to constraints related to our operational scope.

However, we are eager to explore various opportunities. As you may know, NASDAQ has acquired companies like those that provide anti-money laundering systems. If such ventures could significantly enhance efficiency or functionality in our Tokyo JPX market, we believe there might be room for these strategies, of course, with necessary discussions with the authorities.

Still, personally, I see it quite challenging to acquire or invest in sectors of the IT industry that have no direct relation to our core market activities.

Yaguchi : This concludes our Q&A segment on Data & Digital Services. Thank you.

Miyahara : Thank you very much.

Yaguchi : Lastly, we'll proceed to the general Q&A session. If there are any points that weren't clarified during the individual question sessions, feel free to bring them up now. We appreciate your cooperation.

Watanabe : This is Watanabe from Daiwa Securities. I have just one question.

I'd like to discuss your capital strategy. During the full-year financial results announcement, you indicated a necessary minimum capital level of JPY250 billion. I believe there appears to be some surplus capital. As per our earlier discussion, large-scale M&A investment opportunities seem scarce, while your company's stock price appears to be rising. In this scenario, would you opt to leave the capital untouched, or is there a more efficient utilization strategy? How would you approach decisions to enhance capital efficiency? Could you please share your thoughts on this?

Tabata : I would like to respond to that.

As you mentioned, we've set a capital requirement of JPY250 billion. Any excess over this should not be kept idle or held as cash indefinitely, considering the aspects of capital efficiency and cost while also considering

potential growth investments, including prospective M&As. We intend to deliberate and address this at our board meetings. We fully acknowledge this point.

Watanabe : As discussed earlier with Miyahara-san, do you see any opportunities to lobby the regulatory bodies given the challenges under the Financial Instruments and Exchange Act? Can we anticipate flexible interpretations during negotiations, allowing for M&As in areas closely associated with the software industry, to facilitate growth investment?

Miyahara : I'm not certain if it's accurate to refer to it as lobbying, but we consistently exchange information with the authorities about changing business models and the current undertakings of global exchanges. I think the authorities are well aware of this. Going forward, I believe they comprehend the need to enhance the competitiveness of Japan's market under the significant goal of establishing Tokyo as an international financial center.

Therefore, if required, we may propose certain measures, and it's likely that the authorities will discuss their initiatives with us. In the future, we intend to consistently share information, keep an eye on various financial scenarios and initiatives by different exchanges, and gradually adapt our efforts in line with these initiatives.

Watanabe : I've understood everything clearly. Thank you very much.

Yaguchi : Thank you. Now, let's proceed to the next question from the audience.

Niwa : I'm Niwa from Citigroup Global Markets.

My question relates to the upcoming medium-term plan. In the CEO's message in April, it was indicated that progress is being made in line with the current strategy. However, considering the government's initiatives, such as the plan to double asset income and the shift towards a new type of capitalism, I understand that you have suggested that there is a significant role to be played by JPX.

In this context, if there are any potential breakthrough initiatives within your respective areas of responsibility, could you share them with us? I feel that the business is steadily improving. Moreover, I believe the Japanese government is intent on significantly expanding and strengthening the financial markets. Within this scenario, if there are any discussions or emerging ideas, could you shed some light on them?

Iwanaga : I will respond to your question with respect to the cash market. If we're talking about any groundbreaking ideas, I must say that, given our business regulatory environment, it's challenging to discover anything truly novel within our domain. Consequently, my stance is the same as indicated in the CEO's message about continuing to steadily implement our current strategies.

However, as I mentioned earlier regarding IPOs, the market for start-up IPOs has become increasingly competitive. We're seeing trends where firms choose to list on exchanges such as NASDAQ instead of their home markets. From the perspective of providing a robust platform for asset growth for the Japanese people, I view it as a serious concern if promising start-ups are bypassing Japan to list overseas.

We will find out what the Growth market should be with a review of the issues to help companies grow in the Japanese market and make the Japanese market larger to foster greater asset income formation in Japan. We will persistently work towards building this ideal state.

While other Asian markets have developed significantly, Japan still occupies a considerable position. If we can continue to recognize and solve these challenges, I believe there will be a broader understanding that TSE can serve as a viable IPO market within Asia. Currently, we are focusing on cross-border listings, as noted in our medium-term management plan. I think there is potential for further expansion in this area. We believe there

are opportunities to steadily cultivate a market environment where Asian companies can IPO on TSE and receive support from Japanese investors.

Yokoyama : I would like to make a few comments from the perspective of derivatives. Earlier, I mentioned equity options as a kind of breakthrough in the context of public asset formation. It's tough to link this directly to revenue, but considering their role intertwined with policy, they hold significance.

Another area is related to environmental considerations and ESG products. Although it might be challenging to directly tie this to revenue, having such products, whether currently available or not, on our exchange holds a different kind of value.

Moreover, we've announced that we're preparing for the implementation of carbon credits in the cash market. The government, too, considers the perspective of derivatives in this area in the medium term, which could tie into environmental policies.

Of course, generating revenue is crucial, but I believe the derivatives market can also play a significant role in public asset formation and in relation to environmental policies. Hence, I think it's essential that we commit to these initiatives when viewed from a long-term perspective.

Miyahara : In terms of information services, one aspect we're focusing on is the recent revision of the TOPIX. As we've discussed, we're aiming to increase the index's appeal as an investment target. If new financial products related to the TOPIX emerge in the future, I believe they will reasonably contribute to our revenue.

As President Iwanaga pointed out earlier, given the growing attention on the Tokyo market recently, we've been hearing increased demand for Tokyo market information from investors in Asia. Thus, I anticipate the demand for Tokyo market data to naturally rise.

As President Yokoyama mentioned earlier, we have listed futures for ETF-related indices. In this respect, I believe we can expect a certain level of synergy. From a perspective of convenience, it opens up possibilities for structuring financial products and conducting futures trading, which could bring about mutual benefits.

With the expansion of the NISA system and the subsequent growth of individual investors, I anticipate the demand for this type of information to increase. While it's hard to say to what extent this will be a breakthrough, I do expect a substantial increase in demand for information on the JPX market, both domestically and internationally.

Yaguchi : Thank you. It appears that we have addressed all the questions, so we will now conclude the Q&A session.

With that, we conclude the JPX Investor Day 2023. Thank you very much for your participation today.

[END]