

# JPX Report 2021

JAPAN EXCHANGE GROUP, INC.

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#### **Reference** guidelines

• International Integrated Reporting Council (IIRC) framework (reorganized as the Value Reporting Foundation in June 2021)

• Guidance for Collaborative Value Creation (METI)

#### Guidance for Collaborative Value Creation

#### Disclaimer

This publication is prepared solely for the purpose of providing information regarding Japan Exchange Group, Inc., and does not constitute an offering or a solicitation of securities whether inside or outside Japan. Our securities have not been and will not be registered under the United States Securities Act of 1933, as amended (the "Securities Act"), and may not be offered or sold in the United States absent registration or an applicable exemption from registration requirements.

This publication contains forward-looking statements. These statements are based on the information currently available to us as of the date of this publication and our assumptions about uncertainties that may affect future results. There is no guarantee that such statements and assumptions will be realized in the future and may differ significantly from actual results. In addition, matters concerning the future outlook including business strategy reflect our understanding at the date of this publication and contain certain risks and uncertainties. As a result, future outlooks and actual results do not always match. We do not constantly update any of the forward-looking statements contained in this publication to reflect future actual events or developments, and disclaim any obligation to implement such update.

#### **Editorial Policy**

Contributing to realizing an affluent society by promoting sustainable development of the market lies at the heart of JPX's corporate philosophy. We believe that our efforts to realize this corporate philosophy will enable us to both create sustainable value and fulfill our social responsibility. Our goal in publishing JPX Report 2021 is to provide readers with a deeper understanding of this idea and specific initiatives in business activities.

"Overview of JPX" begins this report by introducing the company's corporate philosophy, its role in society, and their business model, and by illustrating JPX's sustainability initiatives as the company's approach to achieving sustainable development of the market. Following "Message from the Management," "Approach to Creating New Value" introduces the company's various initiatives for creating value over two chapters. Additionally, "Foundations for Sustainability" outlines the foundations of JPX's sustainable growth and value creation. As well, "Financial and Corporate Data" provides the company's business and financial overview as well as the company's profile.

September 2021



Survey: Open calls for comments on the JPX Report via the survey page on the website. https://form.jpx.co.jp/webapp/form/18910\_izbb\_515/index.do

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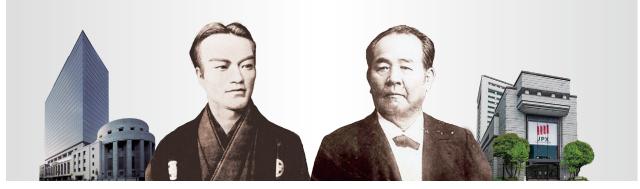
# Who We Are...

Japan Exchange Group, Inc. (JPX) was formed through the merger between Tokyo Stock Exchange Group and Osaka Securities Exchange in January 2013.

More than 140 years ago in 1878, soon after the Meiji Restoration, Shibusawa Eiichi, who is known as the father of capitalism in Japan, established Tokyo Stock Exchange. In the same year, Godai Tomoatsu, a businessman who was instrumental in the economic development of Osaka, established Osaka Stock Exchange.

In October 2019, JPX acquired Tokyo Commodity Exchange as a subsidiary and began engaging in the establishment and operation of markets essential to commodity futures and more.

JPX has inherited the will of both Shibusawa Eiichi and Godai Tomoatsu as the pioneers of capitalism in modern Japan, and is determined to contribute to driving sustainable growth in the Japanese economy.



Osaka Exchange

Godai Tomoatsu

Shibusawa Eiichi

Tokyo Stock Exchange

#### JPX Organizational Structure



Japan Exchange Group, Inc.



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# **Corporate Philosophy**

# Contributing to realizing an affluent society through sustainable market development

Our mission is to contribute to the realization of an affluent society by promoting sustainable development of the market. Committed to our public nature and credibility, we build highly convenient, efficient, and transparent market foundations, and provide creative and attractive services. Our efforts help us attract the support and confidence of investors and

market users and reap the rewards in the form of profits.

#### Management Policy

# Sail to the future. Keep the market secure.

Under rapid innovation and global dynamics, we aim to evolve into a total smart exchange, where anyone can trade any product in a secure and easy way, by further cooperating with stakeholders and entering new partnerships. We will also make a more active contribution to building a "sustainable society" in our role as a responsible infrastructure operator.

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# The Role of Exchange Markets

The markets established by JPX provide companies, etc. with financing opportunities, investors with asset management opportunities, and society as a whole with price discovery functions. By fulfilling these social roles, we contribute to realizing an affluent society through sustainable market development.



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# **Business Environment**

The markets operated by JPX are significantly affected by changes in the external environment, such as the domestic and global economic climates, monetary policies, and geopolitical risks, so we must operate our markets with an eye on domestic and global economic trends and market conditions. Amid the still difficult situation brought about by the impact of the Covid-19 pandemic, despite ongoing economic recovery, some weaknesses are being seen. Whereas it is expected that the recovery will continue due to the effects of various government policies and other factors, it will be necessary to pay close attention to the impact of infection trends on the domestic and overseas economies.

In addition, in the Japanese economy, there are concerns about the rapid emergence of medium- to long-term structural factors, such as the declining birthrate and aging population, budget deficits, and prolonged monetary easing. As for the global economy, we foresee growing risks from the monetary policies in the U.S. and Europe as well as risks relating to the U.S.-China political and economic relationship. JPX properly responds to the various risks stemming from uncertainties and unknowns in its business environment, while recognizing that our greatest management challenge is providing market infrastructure that consistently and stably delivers a high level of satisfaction to users.

Impact of Financial Market Trends JPX's revenues are greatly affected by trends in the secondary market for securities and derivatives products as well as the primary market for securities, and furthermore by trends in global financial markets and economic conditions in Japan and overseas. In particular, as most TSE listed companies are Japanese companies, the state of the Japanese economy has a significant impact on JPX Group's earnings. If the environment surrounding the secondary market and the primary market were to deteriorate due to an economic downturn, or if trading volumes in the cash equities and derivatives markets, the market capitalization of listed companies or the amount of financing were to decrease, JPX's business performance could be seriously adversely affected.

### Competitive Landscape

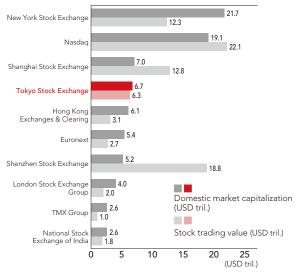
Competition in cash equities and other markets has been intensifying, and we recognize that competition will continue to increase in various areas, including market liquidity, the speed and cost of trade execution, trading system performance, diversification of products and services provided to trading participants and listed companies, as well as developments in the regulatory environment. The stock trading value at JPX accounted for about 84.5% of the stock trading value for domestic listed companies in FY2020, while off-exchange trading (PTSs, and OTC, etc.) in Japan accounted for about 15.5%.

# Consolidation in the Exchange Industry

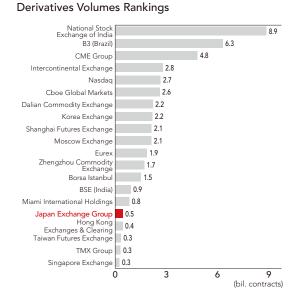
Since the latter part of the first decade of the 2000s, the trend toward consolidation among the major exchanges has been remarkable. In recent years, the acquisitions that have been carried out have included, in Europe, Euronext's acquisitions of Oslo Bors and the Borsa Italiana Group (2019, 2021) and the Swiss Stock Exchange's acquisition of Bolsas y Mercados Españoles (2020), and in the Asia-Pacific region, Cboe Global Markets' acquisition of Chi-X Asia Pacific Holdings (2021). More recently, M&As have also been undertaken for the purpose of strengthening positions in business operation domains, such as the clearing business, information business, and IT business.

### **Market Position**

#### Domestic Market Capitalization, Stock Trading Value Rankings



Note: Market capitalization of domestic stocks as of the end of Dec. 2020. Stock trading value includes only that of domestic auction and electronic trading in 2020. Sources: WFE and Cboe statistics



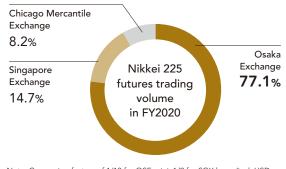
Note: Trading volumes in 2020. JPX trading volume combines figures from Osaka Exchange and Tokyo Commodity Exchange Source: Futures Industry Association statistics



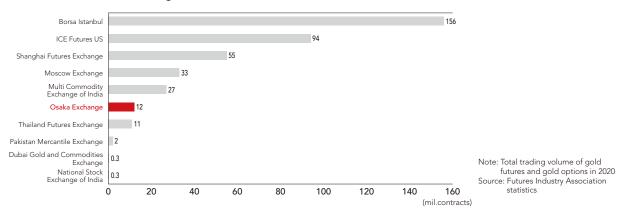
Competitive Landscape of Main Products

Notes: 1. Total value of auction and off-auction trading of common stocks on TSE 1st/2nd Sections, Mothers, JASDAQ, and TOKYO PRO Market, ETFs/ ETNs, REITs, etc. 2. The figure for PTS is the total of figures for SBI Japannext and Chi-X Japan.

Sources: TSE, SBI Japannext, Chi-X Japan, and JSDA statistics



Note: Conversion factors of 1/10 for OSE mini, 1/2 for SGX large (incl. USD-denominated), 1/10 for SGX mini, and 1/2 for CME USD- and JPYdenominated contracts were used in calculations. Sources: Statistics from each exchange



#### Gold Derivatives Volume Ranking

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# JPX History

Since their establishment in 1878 shortly after the Meiji Restoration, both the Tokyo and Osaka exchanges have consistently served as the engine of the Japanese economy, responding to the needs of the times for over 140 years. JPX will continue to contribute to the sustainable growth of the Japanese and the global economies.



**1949** Tokyo Stock Exchange (TSE) and Osaka Securities Exchange (OSE) are established as membership organizations and begin equity trading in May of that year.

Nikkei 225 Futures launch at OSE

6



2019 Japan's consumption tax rate raised to 10%.

2020 Britain leaves the EU. Covid-19 pandemic

sovereign debt crisis). 2013 The Bank of Japan starts quantitative and qualitative monetary easing with a target of 2% inflation.

Southern European and other

eurozone countries (European

2010 The Greek crisis spreads to



Bank of Japan

2010-2020s

2014 NISA launched.

2016 Britain decides to leave the EU. The Bank of Japan announces the adoption of negative interest rates.

2017 The range of eligible users of iDeCo increases.

2018 The EU introduces the Markets in Financial Instruments Directive II (MiFID II).

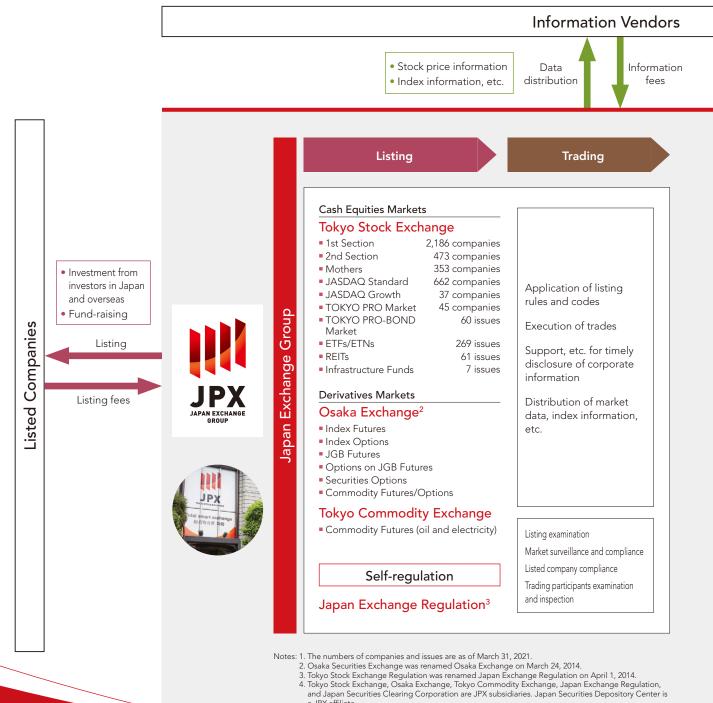


2013 20	14 2015	2016	2017	2018	2019	2020	2021
Jamuan 201	2	2016				2020	
January 2013 Japan Exchange Group is formed through the merger between TSE		4	established the Calculation an	rough the supp d publication o	f JPX/S&P CAPEX	January	"Action Program for Strengthening the Functions of the Cash Equity Market" is published.
Group and OSE				& Human Capital Index begins.		February	"Overview of Market Structure Review and Outline of the New
2013				The derivatives trading system (J-GATE) is renewed. Provision of the J-GATE derivatives trading			Market Segments" is published.
February Tokyo Industrial Exchange changes its trade name to Tokyo Commodity Exchange. Name in		okyo	system to TOC			March	"Practical Handbook for ESG Disclosure" is published.
English re	emains unchanged mmodity Exchanged	as	2017 January	Calculation and	publication of S&P/	July	Comprehensive exchange operations commence.
July OSE cash	n equity market is d into TSE.			TOPIX 150 envi	ronmental indices beg ents on collaboration	·	2021
October JSCC and	d Japan Governme earing Corporation		,	concluded wit	h regional financial developing regiona		June Japan's Corporate Governance Code is revised.
	014		December	JPX joins the l Exchanges (SS	JN's Sustainable Sto E) Initiative.	ck	
J	anuary Calculation a	and publication c ndex 400 begins.		2018			
March TSE derivatives ma integrated into OS		9			0,		d derivatives goes live.
				June	Japan's Corporate		
	201	F			JPX establishes Sus		
		y TOCOM is gra	anted Foreign	July			tual cooperation with the London tainability-related fields.
		Board of Trad	e (FBOT)	September	-		S&P/JPX Carbon Efficient Index begins.
		registration by	the U.S. utures Trading	October	Domestic stock trac	ding units	are standardized to 100 shares.
		Commission (					gned with Shanghai Stock Exchange
	Ар	ril The infrastruct	ure funds mark	et is	to promote ETF list	•	
		established.			JPX declares suppo Financial Disclosure		Task Force on Climate-related
	Jur	e Japan's Corpo Code is formu		e	Tinancial Disclosure	.3 (1010).	
September The cash equ				m	2019		
	·	(arrowhead) is					nt is reached with TOCOM toward nprehensive Exchange.
						•	TF Connectivity is established.
					July Stocl	settleme	nt cycle is shortened to T+2.
					October TOC	OM is acq	juired as a JPX subsidiary.
					November arrow	/head is u	pgraded.
							JPX Report 2021

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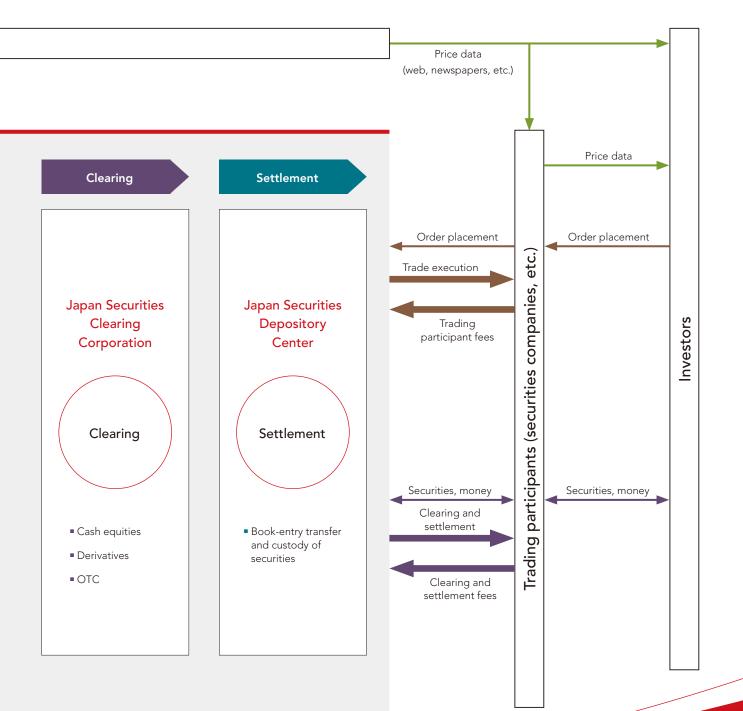
# JPX Business Model

In addition to TSE, which handles the cash equity market, and OSE and TOCOM, which handle derivative markets, JPX Group also includes a self-regulatory subsidiary, which carries out the examination and supervision processes needed to maintain market quality. Our comprehensive services also encompass clearing and settlement functions.



a JPX affiliate.

As consideration for JPX services, we receive various fees from market participants such as securities companies, listed companies, and information vendors. Specifically, our sources of revenues are mainly comprised of (1) revenues from trading services (JPY 53,171 million), (2) revenues from clearing services (JPY 27,939 million), (3) revenues from information services (JPY 21,977 million), and (4) revenues from listing services (JPY 16,660 million).



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# **Creating Value at JPX**

Vibrant securities markets are essential to economic development and a prosperous society. Expanding the base of market participants is a key factor for sustainable growth, and this requires a robust financial market infrastructure that continuously provides diverse products and services.

JPX's Core Businesses

### INPUT

#### Instrumental capital

- Trading, clearing, and information systems, and the network that links these together
  - arrowhead: cash equity trading system
  - J-GATE: derivatives trading system
  - arrownet: highly reliable network for linking each system with market participants
- Backup systems for providing stable market infrastructure

#### Human capital

• Employees who think freely and creatively from a broad perspective

1,197 employees

#### Intellectual capital

- Expertise for exchange operations
   Listing rules, trading rules, and other rule design and operations
- International regulation compliant index operations, market information distribution
- Self-regulation

#### Social capital

- Strong network of market participants built up over the years
  - Trading participants
  - Listed companies
  - Global investors, exchanges, regulatory authorities
- Highly reliable market operations
- Abundant household financial assets of nearly JPY 1.95 quadrillion

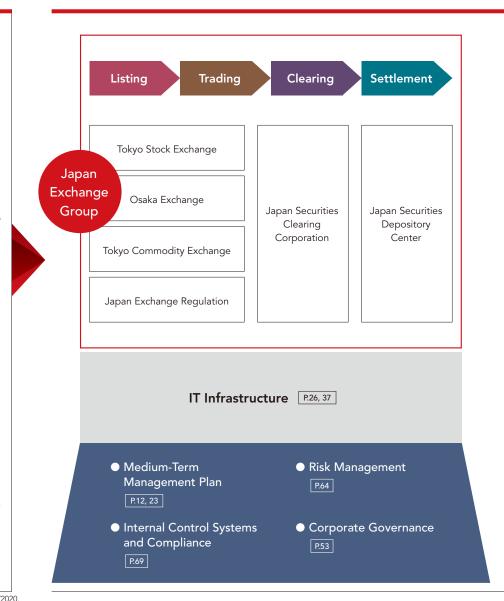
#### **Financial capital**

#### • Stable financial base

- Total equity attributable to owners of the parent company JPY 293.4 billion\*
- Dividend payout ratio of 60%, special dividend of JPY 10 per share paid in FY2020

#### Natural capital

- JPX Group Environmental Policy
- Support for TCFD



Figures as of the end of FY2020. \* Calculated by deducting "default compensation reserve funds" from "total equity attributable to owners of the parent company" in the Consolidated Statement of Financial Position

ChallengesBolstering corporate earning power<br/>Falling birthrate and aging population<br/>Revitalizing regional economies<br/>Building a sustainable society

# Solving social issues and

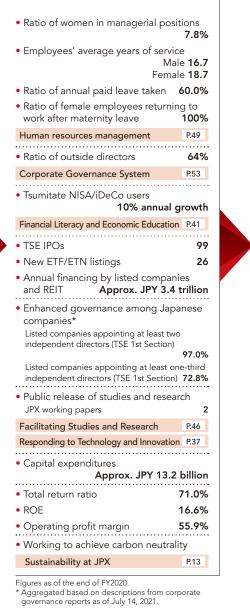
JPX contributes to the realization of an affluent society by promoting sustainable development of the market by ensuring our public nature and credibility, constructing a foundation of the market that is highly convenient, efficient and transparent, and providing creative and attractive services.

### OUTPUT



Simple total of futures, etc., trading participants (75 companies), government bond futures, etc., trading participants (23 companies), and commodity futures, etc., trading participants (9 companies).

### OUTCOME





# the growth of JPX

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# Towards the Building of a Sustainable Society -JPX Growth Strategy-

3rd Medium-Term Management Plan (2019-2021) Management Policy and Core Strategies

**Management Policy** 

# Sail to the future. Keep the market secure.

Under rapid innovation and global dynamics, we aim to evolve into a **total smart exchange**, where anyone can trade any product in a secure and easy way, by further cooperating with stakeholders and entering new partnerships. We will also make a more active contribution to building a "sustainable society" in our role as a responsible infrastructure operator.

#### Four Core Strategies



# Pursue "the shape of the market" toward the next generation

Raise global competitiveness while working on enhancing the appeal of the Japanese market in the pursuit of "the shape of the market" toward the next generation.

# Diversify and propel data services into the next generation

Explore our new business model as an exchange by creating highly convenient data services emerging from an open and innovative framework. Ш

# Invigorate and develop the comprehensive exchange

Invigorate the Japanese derivatives market and evolve it into a leading global derivatives market, while swiftly generating synergies from the product transfer and clearing house integration.



# Develop a foundation to support the future of our business and the society

Keep our markets robust as a market infrastructure by means such as developing and managing reliable IT systems and enforcing appropriate self-regulations. Strengthen cyber security measures and improve preparedness for the risk of natural disasters.

# Significant Risks

Each fiscal year, we identify the significant risks that could affect JPX. We control the possibility of the materialization of these risks by implementing necessary preventive measures. We also implement measures to ensure that we are able to respond flexibly in the event that risks materialize. For information on JPX's risk management systems please refer to Chapter 5 Foundations for Sustainability – Risk Management (pages 64-68).

Types of Risk	Major Risk Scenarios (Examples)
Business environment and business strategy	Risk of a decline in confidence and support for JPX Group market infrastructure due to inadequate action on promoting sustainability, including ESG issues
risk	Risk of a decline in trading due to medium- to long-term market stagnation resulting from changes in political and economic conditions in the U.S., the EU, or other major economies
System risk	Risk to market operations due to JPX system software and other glitches
	Risk to market operations due to pressure on system capacity caused by abnormal market fluctuations in response to sudden short-term exchange rate movements caused by economic or political events in Japan or overseas
Accidents and disaster risk	Risk to business continuity resulting from a loss of normal power supply or other failures because of damage to social infrastructure such as in the event of a wide-area disaster
	Risk of an impact on market operations, etc. as a result of workers being infected or being unable to commute to work due to the spread of a novel virus

### Sustainability at JPX

In order to address changes in the encompassing business environment and to advance initiatives intended to help improve corporate value, JPX has declared inadequate action on promoting sustainability as one of its significant risks. At the same time, JPX also explicitly stated "Further Advance Sustainability" as a specific measure under Core Strategy IV "Develop a foundation to support the future of our business and the society" within the 3rd Medium-Term Management Plan Update for FY2021.

As the operator of infrastructure that supports Japan's financial and capital markets, JPX recognizes that for the purpose of ensuring sustainable market development, it is important to provide markets that can be used on an ongoing basis by listed companies, investors, and other stakeholders. JPX therefore promotes sustainability-related initiatives along the following three axes.

#### Support for corporate value improvement at listed companies

- Developing markets that encourage sustainable growth among listed companies (see pages 30 and 40 for information on the market restructuring and Japan's Corporate Governance Code revision)
- Promoting ESG disclosure and dialogue through information provision and more

# 2

#### Provision of products and mechanisms that are attractive to investors

- Facilitating market participation and supporting investment decision-making through the calculation of ESG-related indices and the listing of ESG-related products (ETFs/ETNs, infrastructure funds, green and social bonds)
- Selecting and publishing lists of companies on certain themes that incorporate ESG assessments

# 3

Development of resilience that enables sustainable market development and continuous use by stakeholders

- Building governance structures based on the intent of each rule in Japan's Corporate Governance Code (see page 53 for information on JPX's Corporate Governance Structure)
- Promoting the transformation of IT systems that enable a balance between stable market operations and responses to changes in the environment (see pages 26 and 37 for information on promoting the transformation of IT systems)
- Nurturing and creating a good environment for human resources, who can strengthen the business foundations (see page 49 for information on initiatives for employees)
- Acting on environmental issues, including through setting carbon neutrality targets
- Participating in international discussions to maintain and enhance the presence of Japanese markets

Along with expanding initiatives related to these areas, JPX will aim for long-term corporate value improvement by advancing dialogue with its stakeholders through greater disclosure of relevant information.

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### Promoting ESG Disclosure and Dialogue through Information Provision, etc.

# Information Provision through the "JPX ESG Knowledge Hub"

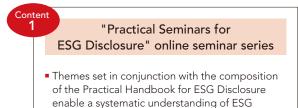
JPX published the Practical Handbook for ESG Disclosure in an effort to support listed companies in their voluntary efforts to disclose ESG information and facilitate dialogue between listed companies and investors. Since November 2020, JPX has offered online seminars that delve deeper into the contents of the Handbook and a compilation of information on ESG disclosure from Japan and abroad through the "JPX ESG Knowledge Hub" on the JPX website.

JPX believes that when listed companies engage in dialogue with investors as a result of disclosing ESG information and undertake initiatives to improve corporate value with the JPX ESG Knowledge Hub as a reference, these actions will help make the overall market more attractive. JPX will therefore continue to provide information that is useful to all listed companies in their practical operations, with the cooperation of JPX ESG Knowledge Hub contributors including related government ministries and organizations, institutional investors, listed companies, and ESG ratings agencies.



#### JPX ESG Knowledge Hub Contents

disclosure



 External lecturers on the frontlines of ESG investment and information disclosure, including institutional investors, related ministries, and listed companies, provide 20- to 30-minute explanations together with slides on each theme

#### ontent 2

Useful information on ESG investment and disclosure in Japanese

- Information from around the world that is not adequately available in Japanese, particularly information on ESG disclosure standards and ratings agencies, is compiled in Japanese
- The following five contents are provided in cooperation with entities including institutional investors, listed companies, and ESG-related organizations:
  - (1) Examples of ESG disclosure by listed companies
  - (2) Introductions to ESG disclosure frameworks(3) Information from institutional investors on their ESG investment
  - (4) Introductions to ESG ratings agencies
  - (5) Domestic and international trends

Web

JPX ESG Knowledge Hub (only in Japanese) https://www.jpx.co.jp/corporate/sustainability/ esgknowledgehub/index.html

Practical Handbook for ESG Disclosure https://www.jpx.co.jp/english/corporate/sustainability/ esg-investment/handbook/index.html

In November 2020, as an example of international best practice, the Practical Handbook for ESG Disclosure was awarded the United Nations Conference on Trade and Development (UNCTAD)'s ISAR Honours, an awards program established for the purpose of encouraging international initiatives to facilitate the disclosure of corporate information related to sustainability.

#### Promoting the Spread of TCFD

The Task Force on Climate-related Financial Disclosures (TCFD) is a private sector-led task force established in 2015 at the request of the G20 Finance Ministers and Central Bank Governors Meeting. Its final recommendations were issued in June 2017 aimed at encouraging individual financial institutions and companies to ascertain and disclose the possible financial impacts of "risks" and "opportunities" brought about by climate change. At present, more than 2,300 companies and organizations around the world have voiced their support for the TCFD Recommendations.

JPX believes that when listed companies work to improve corporate value by engaging in dialogue with investors through the disclosure of information based on the TCFD Recommendations, this will improve the attractiveness of the market overall. JPX therefore voiced its support for the TCFD Recommendations in October 2018, since which time it has strived to promote their wider take-up.

Specifically, as a member of the TCFD Consortium established in May 2019, JPX has participated in debate



Seminar co-sponsored by JPX and the Financial Services Agency

about how to make TCFD-based disclosure more effective and how to make sure it is appropriately reflected into investment decisions. JPX also co-hosted the "TCFD Disclosure and Transition Finance (Toward Carbon Neutral in 2050)" seminar with Japan's Financial Services Agency in April 2021, targeting institutional investors and listed companies.

In addition, the revised Corporate Governance Code of 2021 asks companies listed on the Prime Market to enhance the quality and quantity of climate changerelated disclosures based on the TCFD Recommendations, or an equivalent international framework, as part of their disclosure on sustainability initiatives.

# Providing Products and Mechanisms that are Attractive to Investors

### Facilitating Market Participation and Supporting Investment Decision-Making through Indices and Listed Products

TSE works to facilitate market participation and support the investment decision-making of a wide range of investors with diversified investment interests through the calculation of ESG-related indices and the listing of ESG-related products (ETFs/ETNs, infrastructure funds, green and social bonds).

ESG-related indices include those jointly developed with Nikkei Inc., such as the JPX-Nikkei Index 400 and JPX-Nikkei Mid and Small Cap Index, which take into account qualitative governance and disclosure metrics, as well as the JPX/S&P CAPEX & Human Capital Index, which takes into account capital and human capital investments, and the S&P/JPX Carbon Efficient Index, which takes into account environmental metrics. In addition to ETFs which track these indices, the number of ETFs and ETNs tracking stock indices calculated by other companies is also increasing.

The listed infrastructure fund market enables trading of funds that primarily invest in infrastructure assets. The current listed funds invest in solar power generation and other types of renewable energy power generation facilities. JPX also calculates the Tokyo Stock Exchange Infrastructure Funds Index, which consists of all the infrastructure funds listed on TSE.

The TOKYO PRO-BOND Market lists social bonds issued by the Japan International Cooperation Agency (JICA) and green bonds issued by the Japan Finance Organization for Municipalities. JPX disseminates information on these through the operation of an information disclosure platform for green and social bonds, such as on use of proceeds, allocation status, and third-party assessments.



#### ESG-related Products

https://www.jpx.co.jp/english/corporate/sustainability/ esg-investment/esg-relatedproducts/index.html

### Selecting and Publishing Lists of Companies on Themes that Incorporate ESG Assessments

Along with the Ministry of Economy, Trade and Industry, TSE has established specific themes and metrics that assess companies from a medium- to long-term perspective, and selects and publishes lists of companies actively engaged in initiatives related to these themes.

By selecting and publishing lists of companies that actively advance women's participation, including creating environments where women can continue to work through all life stages, as "Nadeshiko Brands," and companies engaged in strategic initiatives related to employee health and productivity from a management perspective as "Health & Productivity Stocks," JPX provides information to investors that prioritize the improvement of medium- to long-term corporate value.



Highlighting Company Activity , https://www.jpx.co.jp/english/corporate/sustainability/ esg-investment/support/02.html 

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### Action on Environmental Issues

#### **Environmental Policy**

Recognizing that resources are limited, JPX has created its Environmental Vision and Environmental Policy to aim for a sustainable economy where "economic development" and "environmental conservation" go hand in hand.

#### **Environmental Vision**

Japan Exchange Group will maintain and further develop the capital market into one that can coexist with the environment, by creating a clear action plan on environmental issues and making ongoing efforts to reduce our environmental footprint.

#### **Environmental Policy**

- **1. Contributing to a decarbonized economy** We will contribute to the decarbonization of the economy by eliminating 100% of our own GHG emissions.
- 2. Contributing to a circular economy

We will contribute to the development of a circular economy by reducing our resource consumption and waste output, as well as promoting green procurement.

- 3. Strong management of environmental policy Recognizing action on the environment as an important management issue, we will continue to comply with all related laws, regulations and rules, and in addition, will enact dialogue with stakeholders and society through proactive disclosure of environmental information.
- 4. Encouraging environmental conservation initiatives We will encourage environmental conservation initiatives across the whole of society through education to cultivate awareness of environmental issues.

Contributing to a Decarbonized and Circular Economy

As one of its actions on climate change, JPX will switch 100% of electricity consumed by the Group to renewable energy by FY2024 and is aiming for carbon neutrality across Group companies on the same timeline. In order to achieve this goal, JPX is studying the potential to acquire biomass power generation facilities that rely on discarded cooking oil for fuel, thereby contributing to a decarbonized and circular economy by generating renewable energy using secondary resources (recycled material) for fuel.

#### Our targets to achieve carbon neutrality

Autumn FY2021	TSE Building electricity contract switched
End of FY2024	Energy consumed by JPX Group to be 100% renewable using self-generated energy Carbon neutrality achieved (Scope 1, 2)

#### Strong management of environmental policy

In recognition that climate change will have an impact on the sustainable growth of the Group, JPX declared its support for the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations in October 2018. Below are JPX's sustainability initiatives disclosed in line with the TCFD Recommendations.

#### Governance

JPX has established a Sustainability Committee, with the Group CEO serving as Chair and the Group COO as Vice-Chair, and is progressing with analysis of the impact of sustainability issues, including climate change, on the company's business and how to respond to those issues. JPX also appointed an executive officer in charge of sustainability, thus strengthening the system for reporting on related matters and the details of initiatives as appropriate to the Board of Directors. In order to understand the climate change-related risks and opportunities that could affect JPX's business operations and take appropriate action, the Sustainability Department takes the lead on analyzing and monitoring the impact of climate change, and reports to the executive officer in charge of sustainability. For information on Risk Management please refer to the next page.

#### Strategy

JPX studies and discusses the possible medium- to long-term impacts of climate change on business operations, and incorporates the details of these into the Medium-Term Management Plan and risk management. These efforts aim to transform the organization into one that is equipped with both resilience and the potential for sustainable growth. As part of the Medium-Term Management Plan Update for FY2021, JPX explicitly stated "Further Advance Sustainability," which includes "Research how to achieve carbon neutrality," as a specific approach to Core Strategy IV "Develop a foundation to support the future of our business and the society." Moreover, as an operator of infrastructure that supports Japan's financial and capital markets, JPX recognizes the importance of actively contributing to the building of a sustainable society, and is therefore focused on advancing ESG investment, including promoting the spread of TCFD.

#### Main Possible Risks and Opportunities Brought on by Climate Change

Risks	• One trend that has been noted is the growing intensity of natural disasters, which present a risk to business continuity when social infrastructure is damaged in the event of wide-area disasters, for example.
	• There is a risk that the evaluation of JPX Group or the Japanese market as a whole by society could decline, if JPX's market operation or policies or Japanese companies' operational policies cause our or their responses to climate change to be judged inadequate.
	<ul> <li>In the event that policies and regulations regarding greenhouse gas emission reductions are made more stringent, leading to expectations for the introduction of carbon taxes or penalties incurred for failure to achieve emission reduction targets, further measures and capital expenditures may become necessary.</li> </ul>
	• The energy market under Tokyo Commodity Exchange lists futures contracts on crude oil, refined petroleum products, and electricity. Future regulations on fossil fuels along with technological progress in renewable energy may lead to a decline in trading demand, and potentially cause a drop in liquidity or even delistings.
Opportunities	• TSE calculates and publishes indices that take into account climate change and other ESG factors, and lists ETFs and ETNs linked to these. In addition, TSE lists infrastructure funds that contribute to the spread of renewable energy, as well as green bonds related to businesses engaged in climate change issues. As greater focus is placed on these products in the future, JPX expects to see listings and trading of new products become more active.
	<ul> <li>As the operator of energy markets, Tokyo Commodity Exchange established and operates derivatives markets on crude oil, gasoline, and other petroleum products, as well as electricity futures markets, in accordance with industry needs. In the event of a shift in energy usage due to technological innovation intended to address climate change risks, however, Tokyo Commodity Exchange may have the opportunity to expand into new energy fields.</li> </ul>

#### • Risk Management

JPX has established a Risk Policy Committee, chaired by an outside director, and a Risk Management Committee, chaired by the Group CEO, in order to address the various risks faced by the Group. In line with JPX's Risk Management Policy, these committees are responsible for identifying risks as well as developing and implementing preventative measures, and also form a system which ensures a swift and appropriate response in the case that risks do or are likely to materialize. Under the Risk Management Policy, JPX identifies and classifies the risks faced by the company, each of which is managed by the department with jurisdiction. Information on assessments of these operations and issues to be addressed are periodically brought before the Risk Policy Committee (semiannually) and Risk Management Committee (quarterly) and reported in each case to the Board of Directors.

The Risk Policy Committee has identified sustainability related risks, including climate change, as a significant risk under the category of "Business environment and business strategy risk." These risks are managed by the Sustainability Department.

For information on JPX's risk management systems please refer to Chapter 5 Foundations for Sustainability – Risk Management (page 64).

#### • Metrics and Targets

In preparation for more stringent policies and regulations regarding greenhouse gas emission reductions, JPX will review its approach to procuring electricity, which is the primary factor in its emissions. This move aims to switch 100% of electricity consumed throughout JPX Group to renewable energy by 2024, and to achieve carbon neutrality (Scopes 1 and 2) across Group companies on the same timeline.

In addition to ongoing efforts to reduce electricity usage at data centers through the implementation of appropriate system upgrades, JPX began calculating other CO<sub>2</sub> emissions<sup>1</sup> (Scope 3) in FY2020. In this respect, JPX will appropriately manage emissions throughout the value chain, while at the same time 

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taking steps required to reduce greenhouse gas emissions.

The capital goods that account for the majority of Scope 3 emissions are connected to the development of the software that supports JPX's IT infrastructure. JPX therefore aims to gradually reduce these emissions through emissions management while maintaining the funds required for stable market operations. In 2021, JPX submitted its first response to CDP, which collects and publishes corporate environmental information. This response is also posted on the JPX website.

Web

https://www.jpx.co.jp/english/corporate/sustainability/ index.html

#### JPX Group CO<sub>2</sub> Emissions<sup>1</sup> (t-CO<sub>2</sub>)

	FY2018	FY2019	FY2020
Scope 1 (direct CO <sub>2</sub> emissions) <sup>2</sup>	682	738	688
Scope 2 (indirect CO <sub>2</sub> emissions) <sup>3</sup>	13,817	13,708	13,500
From offices	(3,681)	(4,082)	(3,821)
From data centers, etc.	(10,136)	(9,626)	(9,678)
Total (Scopes 1 and 2)	14,499	14,446	14,188
Total emissions per FTE <sup>4</sup>	12.3	11.2	10.7
Electricity usage (kWh)	28,583,670	29,487,151	30,504,689
From offices (kWh)	(6,642,660)	(6,718,468)	(6,128,439)
From data centers, etc. (kWh)	(21,941,010)	(22,768,683)	(24,376,250)

### Other Related CO<sub>2</sub> Emissions<sup>1</sup>

	FY2020 emissions (t-CO <sub>2</sub> )
Scope 3 (Other related CO <sub>2</sub> emissions)	24,732
Capital goods	(18,531)
Fuel and energy-related activity	(2,236)
Acquired goods and services	(2,052)
Business travel	(1,136)

Note 1: The TCFD Recommendations encourage disclosure of greenhouse gas (GHG) emissions. Because JPX's GHG emissions primarily consist of carbon dioxide, only carbon dioxide emissions have been disclosed.

carbon dioxide emissions have been disclosed. Note 2: CO2 emissions from city gas used by the TSE Building and gasoline used by company vehicles are estimated based on the Act on Promotion of Global Warming Countermeasures.

Note 3: CO2 emissions for each electric utility are calculated under the "Greenhouse Gas Emissions Estimation, Reporting, and Disclosure Rules" based on this Act. Note 4: Full-Time Equivalent. Does not include full-time

Note 4: Full-Time Equivalent. Does not include full-time operations support staff and employees on secondment.

#### Encouraging environmental conservation initiatives

In addition to taking steps to raise environmental awareness among its employees through activities such as forest preservation and community cleanup programs, JPX actively participates in events to give back to local communities that provide it with invaluable support.

#### Tree-planting program

The TSE Listing Forest began in June 2004 in Yurihonjo, Akita Prefecture. Conservation activities have been carried out at the five-hectare plot in the hope that the exchange will grow and prosper along with the planted trees.

Together with these conservation activities, JPX has worked alongside the local Yashima region, which has cooperated on these activities, in providing financial education. In a typical year, JPX offers on-site courses about how stock companies work at Yurihonjo Shiritsu Yashima Elementary School, Yurihonjo Shiritsu Yashima Junior High School and Akita Prefectural Yashima High School. An NPO established to run the JPX Entrepreneur Program under its own direction has initiated projects for example at Akita Prefectural University and Akita Prefectural Nishime High School - with the collaboration of industry, academia, government, and financial sectors. The NPO has developed a finance and economics education program integrated throughout the local community, to the extent that in February 2019 it won an award from the Government's Small and Medium Enterprise Agency.

### Working to Maintain and Enhance the Presence of the Japanese Market through Participation in International Discussions

JPX believes that maintaining and enhancing the presence of the Japanese market will help build the resilience of the company, and therefore communicates Japanese sustainability trends to the rest of the world through participation in international discussions.

#### Sustainable Stock Exchanges (SSE) Initiative

The SSE initiative is organized by the United Nations Conference on Trade and Development (UNCTAD), United Nations Global Compact, United Nations Environment Programme Finance Initiative (UNEP FI), and UN-supported Principles for Responsible Investment (PRI). It is a platform for stock exchanges to explore how they can proactively work to build sustainable societies while collaborating with stakeholders such as investors and listed companies.

JPX has been a partner exchange since December 2017 and has been proactively taking part in the Initiative's work to promote sustainability. In 2020, JPX joined the Climate Advisory Group and helped to prepare its Action Plan and Model Guidance for promoting disclosure of corporate information in line with the TCFD Recommendations.

#### World Federation of Exchanges (WFE)

WFE is a global industry association for exchanges and clearing houses. Its various initiatives include publishing policy papers, conducting surveys and research, and compiling and providing statistical data on capital markets. WFE also supports market infrastructure development through information sharing among member exchanges and technical support for emerging exchanges.

JPX participates in the WFE's Sustainability Working Group, for which it served as vice-chair from 2018 to 2020. During this time, JPX helped prepare guidelines regarding approaches to promoting ESG disclosure and the "Sustainability Principles" for exchanges.

### Pick Up ESG Disclosure Based on International and Domestic Discussions

JPX is committed to disclosing ESG information that can be used in decision-making by stakeholders. The company considers that it will be useful to reference information disclosure frameworks which have been formulated based on international and domestic debate (in particular, the TCFD Recommendations, for which JPX has expressed its support (see page 16), and the SASB Standards, which set out disclosure points for separate industries from an investor's point of view). Moreover, in 2021 JPX submitted its first response to CDP, which collects and publishes corporate environmental information. This response is also

#### Sustainability Accounting Standards Board (SASB) Standards

posted on the JPX website.

We will continue to enhance our disclosure by enacting dialogue with stakeholders to understand what kind of ESGrelated information is necessary, while at the same time enhancing our responses to ESG issues in a way that leads to improved corporate value for the company.

For additional information on sustainability initiatives at JPX and ESG information, please visit the JPX website.



https://www.jpx.co.jp/english/corporate/ sustainability/index.html

Topics for Disclosure as Recommended by the SASB Standards	Examples of JPX Initiatives
Promoting transparent and efficient capital markets	<ul> <li>Corporate philosophy (P.2)</li> <li>Trading rules based on the principles of time priority and price priority https://www.jpx.co.jp/english/equities/trading/index.html</li> <li>Distribution of market information and provision of a timely disclosure information service (TDnet) https://www.jpx.co.jp/english/markets/index.html https://www.release.tdnet.info/inbs/l_main_00.html</li> <li>Publication of the Practical Handbook for ESG Disclosure https://www.jpx.co.jp/english/corporate/sustainability/esg-investment/handbook/index.html</li> <li>Provision of the JPX ESG Knowledge Hub (P.14)</li> </ul>
Managing conflicts of interest	<ul> <li>Self-regulatory operations carried out by Japan Exchange Regulation https://www.jpx.co.jp/english/regulation/index.html</li> <li>JPX corporate governance system (P.53)</li> </ul>
Managing business continuity and technology risks	<ul> <li>Development and operation of IT systems that can be used securely and reliably (P.26)</li> <li>Establishment of backup centers (P.27, 68)</li> <li>Formulation of the Business Continuity Plan (BCP) (P.67)</li> <li>Initiatives for preventing recurrence of system failures (P.26, 63)</li> </ul>

Below are JPX's sustainability initiatives in line with the Standards for Security and Commodity Exchanges as published by SASB in November 2018.

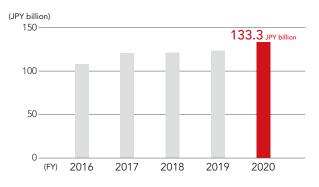
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# FY2020 Financial and Non-Financial Highlights

### **Financial Highlights**

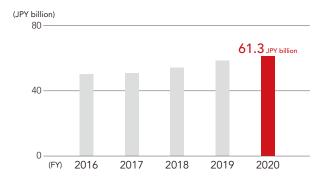
#### **Operating Revenue**



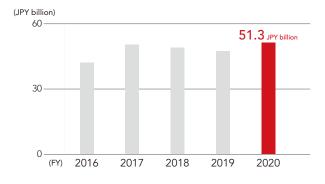
In addition to an increase in revenues from trading and clearing services due to an increase in cash equities trading, trends in listing as well as information services revenues remained strong. As a result, operating revenue grew 7.8% year on year, to JPY 133.3 billion.

Net Income (attributable to owners of the parent company)

#### **Operating Expenses**

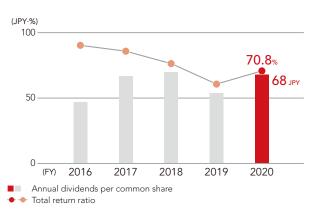


In addition to an increase in personnel expenses due to the implementation of various measures against Covid-19 as well as an increase in such items as systems maintenance and operation expenses owing to the development of the Kansai backup center, operating expenses were impacted by various factors including integration with Tokyo Commodity Exchange, Inc. As a result, operating expenses increased 4.9% year on year, to JPY 61.3 billion.



Although there was an increase in operating expenses, this was more than offset by the growth in operating revenue associated with the increase in cash equities trading. As a result, net income (attributable to owners of the parent company) increased 7.9% year on year, to JPY 51.3 billion.

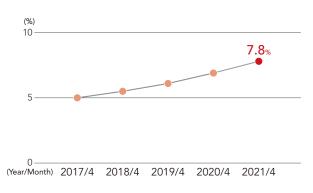
#### Dividends, etc.



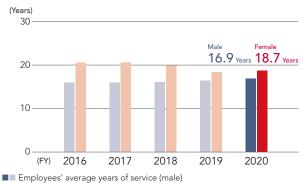
The annual dividend per share for FY2020 was JPY 68. This consisted of an ordinary dividend of JPY 58 per share based on the basic policy of securing a dividend payout ratio of 60% and a special dividend of JPY 10 per share after taking into consideration such factors as performance that exceeded the financial targets set out in the 3rd Medium-Term Management Plan and the support of shareholders amid the Covid-19 pandemic.

# Non-Financial Highlights

#### Ratio of Women in Managerial Positions



From the viewpoint of boosting female employees' careers by encouraging them to participate and contribute at a higher level, we have advanced a variety of initiatives, including career training programs for female employees and supporting networking with career-minded female employees from other companies. JPX has set a numerical target of at least 8% female employees in managerial positions (7.8% as of April 2021) to be achieved through the above measures by FY2022.



Employees' average years of service (female)

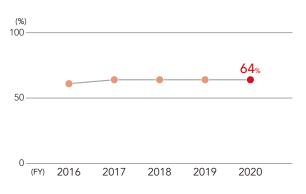
Employees' Average Years of Service

In its 3rd Medium-Term Management Plan, JPX has adopted the development of human resources and advancement of work style reforms as a means of strengthening its business foundations. Under this concept, JPX endeavors to enrich training programs and create workplaces where employees find it easy to work in order to bring out the best in each and every employee.



JPX undertakes initiatives to create an environment that allows greater flexibility in work styles and creates more time outside of work. JPX is advancing work style reforms as a group-wide initiative in which JPX defines targets for total working hours and annual leave usage for each department.

#### Ratio of Outside Directors



The JPX Board of Directors is comprised of 14 members, including two women. To strengthen the board's functions, namely increasing the transparency and accountability of management and supervising the appropriateness of business execution, the composition of the board includes nine independent directors, constituting a board majority, and an independent director (separated from the executive function) as Chairperson.

#### Initiatives We Support

As an infrastructure operator that supports Japan's financial and capital markets, JPX recognizes the importance of actively contributing to building a sustainable society and believes that this also serves as a source of JPX's corporate value. Based on this concept, JPX endorses the following initiatives:





# Message from the CEO



September 2021 Director & Representative Executive Officer, Group CEO Japan Exchange Group, Inc.

### Introduction

I would like to express my deepest apologies to investors and related parties for the great inconvenience caused by the failure in the arrowhead cash equity trading system that occurred on October 1, 2020. In response to the system failure, which led to all trading on the cash equity market being suspended for the whole day, JPX and Tokyo Stock Exchange, Inc. (TSE) respectively received, in November 2020, business improvement orders from the Financial Services Agency based on the findings that a setting for the automated switchover regarding the failed device was inadequate, and that TSE had not developed sufficient rules for trading resumption. JPX Group has been conducting operations under the slogan of "Never Stop" and emphasizing initiatives to improve reliability; however, going forward, we will also focus in the same way on improving "resilience," to further ensure that recovery measures are prompt and appropriate, whereby JPX Group as a whole will endeavor to recover the credibility of the market.

### Overview of the 3rd Medium-Term Management Plan and a Recap of FY2020

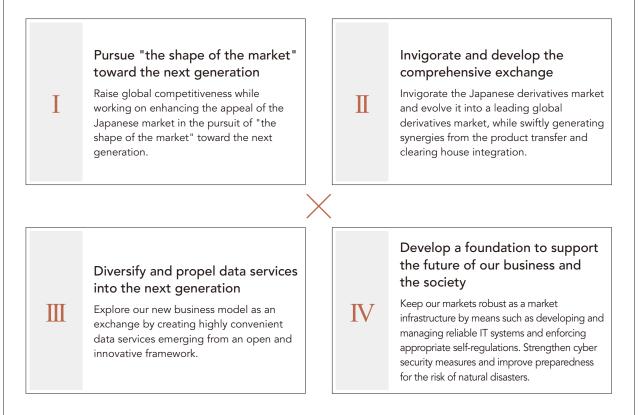
As we witnessed Covid-19 spread throughout the world during FY2020, Japan also experienced waves of increasing and decreasing numbers of infections as the pandemic grew. Against this backdrop, in upholding its responsibility as a part of social infrastructure, JPX Group aims to ensure that market operations are not impacted by the spread of the virus. To this end, as well as implementing various initiatives to prevent the spread of ■ 3rd Medium-Term Management Plan Update for FY2021 (published on April 28, 2021)

**Management Policy** 

# Sail to the future. Keep the market secure.

Under rapid innovation and global dynamics, we aim to evolve into a total smart exchange, where anyone can trade any product in a secure and easy way, by further cooperating with stakeholders and entering new partnerships. We will also make a more active contribution to building a "sustainable society" in our role as a responsible infrastructure operator.

#### Four Core Strategies



infections based mainly on the government's Basic Policies for Novel Coronavirus Disease Control, JPX Group has established a BCP Emergency Headquarters, and implemented measures needed to ensure the health of employees and continued operations.

With these measures in place, we worked to evolve toward our medium- to long-term image for the future, "Total smart exchange," and implement measures based on the four core strategies that we established to enable JPX Group to actively contribute to building a sustainable society, namely "Pursue 'the shape of the market' toward the next generation," "Launch, invigorate and develop a comprehensive exchange," "Diversify and propel data services into the next generation," and "Develop a foundation to support the future of our business and society."

With regard to the first strategy, "Pursue the 'shape of the market' toward the next generation," we are working in stages to put in place rules and other specifics for the market restructuring, including disclosing the details of the new market segments and the transition process. To aim for even higher ETF liquidity, we also improved the market making incentive scheme and launched an RFQ platform.

With regard to the second strategy, "Launch, invigorate and develop a comprehensive exchange," we centralized gold, rubber, and other commodity futures at Osaka Exchange, Inc., thereby enabling one-stop trading of these together with Nikkei 225 Futures and other financial derivatives. Moreover, we increased the convenience of clearing and settlement by integrating the JPX Group-owned clearing houses. Next, along with creating a comprehensive energy market through the listing of LNG futures, etc., we will implement derivatives holiday trading by 2022 with the aim of enhancing the competitiveness of Japan's capital markets.

Turning to the third strategy, "Diversify and propel data services into the next generation," we leveraged collaboration with outside partners, as well as APIs and cloud-based services, to begin providing new services utilizing data held by JPX Group and to expand the customer base. Going forward, we will use the market restructuring as an opportunity to transition TOPIX into an index that represents the market and that functions as an investable index.

Finally, with regard to the fourth strategy, "Develop a foundation to support the future of our business and society," in order to support listed Japanese companies' provision of information on sustainability initiatives, we launched the JPX ESG Knowledge Hub, a website that collates information on ESG disclosure and ESG investment. Also, our Practical Handbook for ESG Disclosure, which we published in March 2020, received the "ISAR Honours" from the United Nations Conference on Trade and Development (UNCTAD).

# Management Focus and Initiatives from FY2021

Although the markets operated by JPX Group are highly susceptible to changes in the external environment, including domestic and overseas economic conditions, monetary policies, and geopolitical risks, we are committed to fulfilling our duty to the market regardless of the environment. Likewise, our top management priority is the continued provision of stable market infrastructure that offers market users a high degree of satisfaction.

With this understanding, we were reminded of our heavy responsibility as a market operator following the incident in October 2020 where a system failure caused all trading on the cash equity market to be suspended for the whole day. In response, we have committed ourselves to fulfilling our primary mission of stably operating markets by unfailingly implementing initiatives to restore the credibility of the markets and strengthen functions.

From a medium- to long-term perspective, we will review our vision for IT functions and human resources, and engage in driving forward digital transformation (DX) to a greater degree. At the same time, we plan to undertake a wide range of activities, including the development of a new concept market created together with market users and the exploration of an overall system design that will allow us to maintain and enhance our business competitiveness, led by the Center for Advanced Research and Development (DigiMa Lab.), which was established in April 2021 as a research organization intended to design a future vision for JPX Group.

During FY2021, the final year of the 3rd Medium-Term Management Plan, I believe that while following through with measures based on our core strategies, we must also continue to prepare for medium- to long-term changes in the environment. Along with steadily implementing the market restructuring and other key initiatives, as countries around the world become increasingly active in their efforts to achieve carbon neutrality, we will address changes in investment techniques and financing methods, such as the promotion of ESG investment, in order to realize Japan's goal of net-zero GHG emissions by 2050.

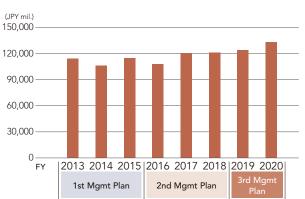
We will continue to strive to achieve the understanding and cooperation of our various domestic and overseas investors, listed companies, and trading participants such as securities companies, as well as of regulators and the general public as we contribute to Japan's economic revitalization through sustainable development of the market, in our role as a core infrastructure underpinning Japan's financial and capital markets.

We deeply appreciate your continued support and ask that you walk alongside us on our journey forward.

#### Past Medium-Term Management Plans

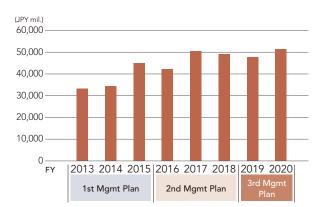
	1st Medium-Term Management Plan FY2013–FY2015	2nd Medium-Term Management Plan FY2016–FY2018
Vision / Concept	<ul> <li>Become the most preferred exchange in the Asian region</li> <li>Securing an overall competitive advantage in Asian markets</li> <li>Contributing to economic growth in the Asian region</li> </ul>	STEP UP TO THE NEXT Increase investment for sustainable market development based on successful TSE-OSE integration • Leveraging competencies across JPX Group • Aggressively pursuing new business
Core strategies	<ol> <li>Creating a new Japanese stock market</li> <li>Expanding the derivatives market</li> <li>Expanding exchange business fields</li> </ol>	<ol> <li>Satisfying diverse investor needs and encouraging medium- to long-term asset building</li> <li>Supporting listed companies in enhancing corporate value</li> <li>Fulfilling our social mission by reinforcing the market's structure</li> <li>Creating new horizons in the exchange business</li> </ol>
Results	<ol> <li>Creating a new Japanese stock market Introduction of Japan's Corporate Governance Code, launch of JPX-Nikkei Index 400</li> <li>Expanding the derivatives market Launch of JPX-Nikkei Index 400 futures, developed next J-GATE derivatives trading system</li> <li>Expanding exchange business fields Expansion of OTC derivatives clearing business</li> <li>Early realization of integration benefits Achievement of JPY 8.5 billion in cost synergies, completed integration of major organizational functions, regulations, and IT infrastructure</li> <li>Improving the presence of JPX in Asia Supported the establishment of a stock exchange in Myanmar, cross-listed ETF and futures with exchanges in Taiwan, achieved interconnectivity with SGX co-location facilities</li> </ol>	<ol> <li>Building momentum in asset building An increase of ETF holders, introduction of a new ETF market making incentive scheme, new global environmental indices</li> <li>Increasing the corporate value of listed companies Revised Japan's Corporate Governance Code, annual IPO count steady, created new ETFs</li> <li>Reinforcing the market structure Shortened JGB settlement cycle to T+1, enhanced backup capabilities in Tokyo and Osaka, strengthened market surveillance based on HFT registration regime</li> <li>Developing new fields in the exchange business Advanced PoC testing for utilization of blockchain, incorporated AI into market surveillance, listed products related to sustainability</li> </ol>

Earnings



### Operating Revenue

#### Net Income (attributable to owners of the parent company)



# Message from the CIO



With IT as a source and means to sharpen JPX Group's competitive edge, we will press forward with highly reliable market operations and initiatives that tackle issues associated with future challenges.

### **Building Resilient Systems**

In 1999, trading floors at both the Tokyo and Osaka exchanges were closed, bringing an end to manual processing of order placement and matching. What took their place, and what now exist at JPX Group, are systems that totally computerize trading, clearing and settlement as well as external distribution of information such as stock prices.

Stable systems operations are a mandatory requirement for handling transactions smoothly, as well as for maintaining market stability and reliability. In October last year, however, a failure within the cash equity trading system meant that there was no alternative other than to suspend trading for an entire day. Once again, we deeply apologize for the inconvenience caused to all investors and the many other related parties.

Until now, JPX Group has been conducting operations under the slogan of "Never Stop" and emphasizing initiatives to improve reliability of systems; however, going forward, we will also focus in the same way on improving "resilience," to further ensure that recovery measures are prompt and appropriate. We will review the way our systems should operate with a long-term view in order not only to bolster confidence in the market, but also to satisfy the needs of market users and enhance JPX Group's competitiveness, by thoroughly carrying out measures to prevent recurrence based on the deliberations of the Council for Recurrence Prevention Measures and elsewhere so as to strengthen resilience in a multifaceted manner.

# JPX Group's IT Strategy

As its IT strategy, JPX Group has formulated its IT Master Plan for the purpose of clearly communicating its direction and strategy on IT internally and externally as well as driving business by aligning management and IT policies.

Together with the 3rd Medium-Term Management Plan, and in light of the vision JPX Group has for its IT departments in the coming decade, we have set the categories of "areas requiring steady implementation" and "IT agility amid changes." With regard to the former, we will steadily undertake system upgrades and other measures that put an emphasis on stability and reliability. Concerning the latter, to promptly respond to dramatic changes in the environment, importance will be placed on constructing new platforms, utilizing accumulated data and aggressively adopting the latest technologies.

# Offering a stable system platform and efforts in cyber security

With an emphasis placed on stability, reliability, and processing capabilities, JPX Group offers a wide array of systems and networks to users. These include the cash equity trading system "arrowhead," the derivatives trading system "J-GATE," the "clearing system" that handles clearing and settlement, and "arrownet," a dedicated network that connects trading participants and other users.

In addition, to achieve consistently stable provision of services to users, we have enhanced the structure for business continuity with the construction of a new secondary (backup) center in the Kansai region, with plans to steadily have each system begin operation at the backup center from this fiscal year. Cyber security has also been a topic of discussion recently. As a steady stream of new threats emerge, we are constantly striving to make improvements, such as detecting such threats in real time and having external expert organizations conduct security diagnostics.

### **Promoting Digital Transformation**

An exchange's IT is the foundation upon which an exchange promotes business, such as market operations, and creates new value. Compared with the past where transactions would have been impossible without physically gathering at an exchange, it is now possible to place orders online, from any location. Looking ahead, introducing and making use of technologies such as cloud computing and AI will more than merely streamline those operations that had until now been performed manually: it will enable the creation of new technology-centered lines of business.

There is a necessity to push ahead with implementation of digital technology and transformation of IT systems so that the creation and evolution of new businesses can be realized, and for this reason the management is committed to constructing a framework for digital transformation (DX). As a further challenge in the area of digitization, we are focusing on applying agile development and test automation that support swift system development and also cultivating human resources who are well-versed in digital technology and business.

Furthermore, in April of this year we established "DigiMa Lab.," a center of advanced research and development that seeks to accelerate the above initiatives, to strengthen resilience by utilizing state-of-the art technologies, and to bring about improvements in the development of systems and services. DigiMa Lab. is an abbreviation for Digital Market Laboratory, representing market development by leveraging digital technology, but also referencing "Dejima," the island where closed-off Japan traded with the Dutch in the Edo period, important to Japan as somewhere entirely new paths were created and connections were made to the outside world. The center will work in a wide range of areas such as creating with users a new concept market as well as exploring an overall system design that will allow JPX Group to maintain and enhance its business competitiveness.

In a bid to address issues on both stability in market operations and environmental changes, we will make ongoing enhancements to functions as well as capability improvements. JPX Group is committed to accelerating digital transformation, further improving resilience, and enhancing the experience of investors, listed companies, market participants, and other stakeholders.

#### IT Master Plan (published on April 28, 2021)

Medium-Term Management Plan		Sustainable market operations		IT agility amid changes	
Ι	Pursue "the shape of the market" toward the next generation	I -1 Improve reliability and convenience via system upgrades	I - 3 Strengthen resilience in event of system failure	I - 2 Raise the topline by building new platforms	I - 4 Explore overall system design for medium to long term
II	Invigorate and develop the comprehensive exchange	II -1 Realize flexible launch of new products and functions			
Ш	Diversify and propel data services into the next generation			Use accumulated information resources	III - <b>2</b> Diversify channels that enable flexible information distribution
IV	Develop a foundation to support the future of our business and the society	IV - 1 Improve BCP measures by building a new secondary center IV - 3 Optimize operations via cloud and automation	IV - 2 Enhance stability by using new technology IV - 4 Strengthen measures against more complex cyber-attacks	IV - 5 Proactively adopt advanced technology IV - 6 Train/develop human resources to use technology	IV - 7 Build a business execution environment for the new normal

# Message from the CFO



We will support the sustainable development and evolution of the market by making ongoing investment while keeping a balance between shareholder returns and financial resilience for stable market operations.

# JPX's Capital Policy

It is extremely important that JPX maintains a strong financial base to ensure that it can always stably operate our markets in a manner that is highly satisfactory to users, without being overly affected by local and global economic conditions, financial policies, geopolitical risks, and other trends. From this perspective, JPX has progressed with the diversification of its business portfolio, with the aim of transitioning to a management structure that does not overly rely on the condition of the Japanese stock market.

Specifically, we expanded those businesses defined as peripheral businesses, such as co-location and index/information services, and achieved the creation of a comprehensive exchange through the business combination with TOCOM and the transfer of some products to OSE.

As a result, we achieved our financial targets under the 3rd Medium-Term Management Plan (operating revenue of JPY 130.0 billion, net income of JPY 50.0 billion, and ROE of at least 15%) during FY2020.

Going forward, we will flexibly manage costs while actively developing ways to further diversify the

revenue stream in response to changes in the external environment, such as the spread of Covid-19, the progress of business operations and more. At the same time, we intend to maintain a level of ROE that sufficiently exceeds the cost of capital, regardless of market conditions, into the future and will continue to manage the company with an eye toward capital efficiency.

# Looking Back at FY2020

Despite being in the midst of the global Covid-19 pandemic, during FY2020 TOPIX and the Nikkei 225 rose to levels that had not been seen in nearly 30 years, in part due to anticipation for vaccinations and economic stimulus packages in various countries. Against this backdrop, market activity boomed with the average daily trading value of cash equities recording its highest level in history at JPY 3.48 trillion.

Moreover, growth in both financing by listed companies and ETF AUM led to an increase in listing services revenue. Meanwhile, JPX saw higher revenues from information services as a result of growth in revenues from market data usage fees and index licensing fees. Taking into account the aforementioned, company-wide operating revenue climbed 7.8% year on year, to JPY 133.3 billion.

Meanwhile, operating expenses increased 4.9% year on year, to JPY 61.3 billion. This was due in part to impacts of the business combination with TOCOM being seen in a full fiscal year for the first time, as well as to countermeasure expenses required to maintain stable market operations amid the spread of Covid-19 and to higher system related expenses from the development of the Kansai backup center.

In light of the aforementioned, operating income rose 8.8% year on year, to JPY 74.5 billion. Net income (attributable to owners of the parent company) increased 7.9% year on year, to JPY 51.3 billion.

### Shareholder Return Policy

As part of its fundamental shareholder return policy, JPX has announced a dividend payout ratio target of approximately 60%, and continues to aim for this as a general rule.

When the company was first established, JPX targeted a dividend payout ratio of around 40%. In FY2015, however, having secured a certain financial base, we raised the target for the payout ratio to around 60%.

JPX will consider the additional return of profits to shareholders after comprehensively considering such factors as investment plans for growth and the external environment, while ensuring a balance between financial health and stability and capital efficiency.

Previously, JPX acquired approximately JPY 20 billion of its own shares for the first time between July 2016 and May 2017 (FY2016: approximately JPY 12.5 billion; FY2017: approximately JPY 7.5 billion). In addition to

Total return ratio (left y-axis)
 Acquisition of own shares

Ordinary dividend

Commemorative dividend, etc.

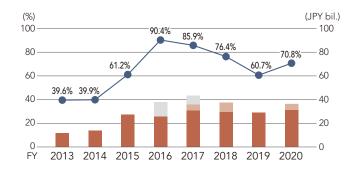
the ordinary dividend accounting for 60% of net income, the company also paid a commemorative dividend of JPY 10 per share (for a total of JPY 5.3 billion) in FY2017 and a special dividend of JPY 15 per share (for a total of JPY 8 billion) in FY2018.

Upon entering FY2020, JPX has continued to flexibly and actively deliver shareholder returns in line with its shareholder return policy, including by paying a special dividend of JPY 10 per share (for a total of JPY 5.3 billion) as well as initiating an acquisition of up to JPY 20 billion worth of its own shares starting in April 2021.

### Proactive Engagement with Shareholders and Investors to Enhance Corporate Value

I interact with many stakeholders including institutional and retail investors as well as analysts. During FY2020, in addition to holding earnings presentations and briefings for retail investors online in response to the expanding impact of Covid-19, I actively engaged in the exchange of ideas with domestic and overseas investors online in regard to JPX Group's management and financial strategies.

Although we did manage to achieve the financial targets under the 3rd Medium-Term Management Plan in FY2020, the business environment remains uncertain due to the impact of Covid-19. Under these circumstances, we recognize the increasing need for stakeholders to have an appropriate understanding of the resilience of the company and the strengths of our business model. We sometimes receive harsh criticism through these dialogues with stakeholders, but my goal is to spearhead efforts to further improve JPX Group's corporate value by giving serious consideration to all these suggestions, and properly reflecting them in the company's management.



#### Historical Records of Total Return Ratios and Value of Return to Shareholders

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# Message from the Officer Responsible for the Listing Division





By connecting listed companies and investors and encouraging both sides to work together in the capital markets, we aim to realize an affluent society by ensuring optimization in fund distribution and the smooth circulation of funds throughout society and contributing to the sustainable development of the economy and society.

Ao Katsumi

Executive Officer Tokyo Stock Exchange, Inc

Major Stakeholders	Creating Value	
• Listed companies, companies aiming to be listed	Contributing to medium- to long-term improvement of corporate value through the supply of equity funds	
Investors	Contributing to asset building by providing attractive investm opportunities	

#### Resolving Social Issues and Creating Social Value

• Realizing an affluent society by building a sustainable and strong economic and social infrastructure as well as by contributing to future asset building by individuals

#### **Perceived Strengths**

 Listing of many companies representing the Japanese economy and providing funding opportunities to leading venture companies

Diverse market participation from domestic and overseas investors

#### Perceived Risks

- Risk of economic stagnation in listed companies and venture companies
- Risk of decrease in investment funds supplied
- Risk of no progress in enhancing quality of capital markets

#### Growth Strategy

### Creating Value

By simultaneously providing the corporate sector with opportunities to raise equity financing and investors with investment opportunities, the stock market (cash equity market) serves its basic function of achieving optimization in the distribution of funds for society as a whole and the smooth circulation of funds while supporting the sustainable development of economic society.

To fully perform this function, JPX is aiming to support medium- to long-term improvement of the corporate value of listed companies and transform its stock market into an attractive one with high support from a variety of investors. Therefore, we are focusing on the review of market segments and further improvement of the corporate governance of listed companies.

We published an overview of the market segments review in February 2021 and are gradually making

progress with revisions to the rules in preparation for the transition to the new market segments scheduled for April 2022. We are also working to support market selection by listed companies and to enhance investors' and other market users' awareness of the new market segments.

In June 2021, we also revised Japan's Corporate Governance Code with the aim of improving the corporate governance of listed companies. In particular, given that the new Prime Market is a market for enterprises focusing on constructive dialogue with global investors, the Code has also established principles specific to the Prime Market. We will also aim to improve the quality of corporate governance by further promoting constructive dialogue between listed companies and institutional investors. Message from the Officer Responsible for the Listing Division | Message from the Officer Responsible for the Trading Division (Cash Equities) | Message from the Officer Responsible for the Trading Division (Derivatives) | Message from the Officer Responsible for the Trading Division (Commodities) Message from the Officer Responsible for the Clearing Division Message from the Officer Responsible for the Information Services Division Message from the Governor Responsible for the Self-Regulation Division (Market Surveillance and Compliance) Special Feature: Responding to Technology and Innovation

# Message from the Officer Responsible for the Trading Division (Cash Equities)



Listing Trading Clearing Settlement

We provide an attractive market for all participants by ensuring fair and smooth price formation and further improving convenience.

Kawai Hiroki

Tokyo Stock Exchange, Inc

Major Stakeholders	Creating Value		
Securities companies, investors	Providing a market in which trading is smooth and fair		
Resolving Social Issues and Creating Social Value			
• Providing people with opportunities for asset building through the development and operation of markets			

- · Ensuring fair and smooth price formation in the markets through effective trading supervision
- · Improving market convenience and reliability through various measures to enhance market functions

#### Perceived Strengths

- One of the world's largest markets, with a diverse investor base that includes retail investors as well as Japanese and overseas institutional investors
- Trust from and cooperation with market participants built over time
- Safe and reliable cash equity trading system

#### Perceived Risks

- Reduced liquidity caused by a downturn in trading volume due to a deterioration in the market environment brought about by such situations as economic stagnation in Japan and overseas
- Reduced liquidity on the exchange due to a higher share of off-exchange trading

#### Growth Strategy **Creating value**

In addition to planning rules for the trading of stocks and other equity products as well as trading participants, the Equities Department is also responsible for, among other things, trading supervision which involves monitoring the market in real time to detect unfair trading or irregular orders. Given the rapidly changing market environment, we believe it is vital to meet the execution-related needs of a diverse range of investors in order to ensure sustainable development of the market. The 3rd Medium-Term Management Plan aims to "pursue 'the shape of the market' toward the next generation" with the goal of improving the attractiveness of the Japanese market and increasing its convenience for users in the market by, for example, strengthening the functions of the cash equity market, creating new communication channels for retail investors, enhancing support for global investors, revitalizing the ETF market, and implementing further

flexibility for settlement dates in the ToSTNeT market from May 2021. In response to the trading system failure that occurred in October 2020, which resulted in the suspension of all trading in the cash equity market for the entire day, we also put an emphasis on strengthening our "resilience" so as to enable a quick and smooth resumption of trading even if a failure should occur, and consider ways to strengthen the function of the cash equity market over the medium term. Additionally, for sound and sustainable market operations, we will further strengthen and ensure thoroughness in our trading supervision operations, including through real-time monitoring and detection of irregular orders that might impair fair price formation and orders that could signal unfair trading. Moving forward, we will continue to provide a market that is safe to use, maintains high quality with fairness, reliability and transparency for market participants.

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 Special Feature: Responding to Technology and Innovation

# Message from the Officer Responsible for the Trading Division (Derivatives)



Major Stakeholders	Creating Value
• A variety of domestic and overseas investors and business corporations (Commercials), as well as financial instruments business operators	Providing the means to hedge the risk of price fluctuations of various underlying assets, as well as direct investment tools for the entire market and price indicators

#### Resolving Social Issues and Creating Social Value

• Providing domestic and overseas market participants with efficient and effective asset management opportunities and price fluctuation risk hedging opportunities through the proper operation of a derivatives exchange market that is both convenient and transparent

#### Perceived Strengths

- A comprehensive exchange that handles a wide range of financial and commodity derivatives under the Financial Instruments and Exchange Act
- Handling of a wide range of securities-related derivatives, centered on Japanese stocks and represented by Nikkei 225 Futures
- Trust from and cooperation with market participants built over time

#### Growth Strategy

**Creating Value** 

Osaka Securities Exchange (OSE), as a JPX subsidiary, operates the derivatives market for a wide range of underlying assets from financial instruments to commodities, under the Financial Instruments and Exchange Act. Leading products include stock price index-related derivatives such as Nikkei 225 Futures (large and mini), Nikkei 225 Options, and TOPIX Futures, as well as bonds derivatives such as 10-year Japanese Government Bond (JGB) Futures. These products are widely used by market participants in Japan and overseas as a means of hedging against the risk of price fluctuations in underlying assets or as a means of investing directly in the market as a whole. They support Japan's securities and financial markets, which are some of the world's leading capital markets. With the aim of further expanding the international presence and strengthening competitiveness of the Japanese market, OSE will continue to work to design

#### Perceived Risks

- Risk of reduced liquidity due to lower trading volume caused by a decline in hedging against price fluctuations of cash equities, which could be brought about by a domestic economic slowdown and changes in industrial structures
- Risk of reduced liquidity due to competition with overseas exchanges offering similar products

and develop highly convenient rules and systems, reflecting the views of market participants in Japan and overseas.

As it is important to provide the convenience of derivatives to a wider range of underlying assets, we are also promoting various initiatives to improve liquidity in derivatives related to emerging markets, REITs, and individual stocks that function as effective hedging tools for products other than leading products. We are also working to further expand the number of participants utilizing commodities-related derivatives, including gold and platinum derivatives, which were transferred from Tokyo Commodity Exchange (TOCOM) in July 2020, by leveraging a legally- and system-integrated platform, as a comprehensive exchange. Message from the Officer Responsible for the Listing Division Message from the Officer Responsible for the Trading Division (Cash Equities) Message from the Officer Responsible for the Trading Division (Derivatives) Message from the Officer Responsible for the Trading Division (Commodities) Message from the Officer Responsible for the Clearing Division Message from the Officer Responsible for the Information Services Division Message from the Governor Responsible for the Self-Regulation Division (Market Surveillance and Compliance) Special Feature: Responding to Technology and Innovation

# Message from the Officer Responsible for the **Trading Division (Commodities)**



Listing Trading Clearing

Settlement

As a comprehensive energy market, we will establish a market that is highly convenient for actual consumers and contribute to the stabilization of the energy markets in Japan and other Asian regions.

### Ichimoto Hiroyasu

Senior Executive Officer Tokyo Commodity Exchange, Inc

Major Stakeholders	Creating Value
Business corporations (Commercials)	Providing tools for hedging against price fluctuation risks in energy-related products and highly transparent price indicators fo such products
$\boldsymbol{\cdot}$ Commodity derivatives business operators, domestic and overseas investors	Providing tools for investment in Japan's energy sector

#### Resolving Social Issues and Creating Social Value

• We will contribute to the smooth production and distribution of energy-related products by realizing fair price formations and providing opportunities to hedge price fluctuation risks through the appropriate and sound management of the energy market.

#### Perceived strengths

- A commodity derivatives market closely linked to national policies which is properly organized and whose sound operations are secured under the Commodity Derivatives Transaction Act
- Trust from and cooperation with market participants built over time

# Growth Strategy Creating Value

Tokyo Commodity Exchange, as a JPX subsidiary, operates a commodity market closely related to Japan's energy policy under the Commodity Derivatives Transaction Act.

Japan imports almost 100% of the crude oil it uses, 80% of which comes from the Middle East, with Dubai crude oil futures prices at TOCOM regarded as a benchmark . Energy demand in Japan is one of the largest in the world, and the highly stable and sound energy market operated by JPX is important for the sustainable development of Japanese companies and the Japanese economy.

In addition to crude oil and petroleum products, TOCOM also operates an electricity futures market. As Japan's national energy policy promotes the liberalization of electric power sales and the electricity spot market expands, there is growing demand for hedging in the electricity futures market to ensure

#### Perceived risks

- Risk of inability to provide liquidity expected by Commercials who need to use hedging functions due to a decrease in the number of trading participants who engage in the brokerage of customer orders and delivery of products
- Risk of reduced liquidity due to competition with overseas exchanges handling similar products

stability of future electricity procurement and selling prices.

In the operation of an energy market that is closely linked to society, economy, and daily lives of ordinary people, it is important to ensure the transparency and liquidity of transactions. For this reason, TOCOM will continue to pursue a fair and user-friendly market by planning rules and monitoring unfair trading and irregular orders. We will also enact a variety of measures to provide an attractive market for all participants, leveraging the synergies stemming from becoming a member of the highly reliable JPX Group, which includes a clearing organization.

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 Special Feature: Responding to Technology and Innovation

# Message from the Officer Responsible for the Clearing Division



# Listing Trading Clearing Settlement

We will provide a safe and secure trading environment for domestic and overseas market participants in consideration of the views from market participants and global standards.

Hosomura Takehiro

Executive Officer Japan Securities Clearing Corporation

#### Major Stakeholders

 Market participants (clearing participants such as securities companies, banks, commodity derivatives brokers, and investors who use the clearing services of Japan Securities Clearing Corporation)

#### Creating Value

Providing a safe and secure trading environment by guaranteeing the completion of settlement of transactions conducted on the market

#### Resolving Social Issues and Creating Social Value

- · Improving market liquidity by providing a safe and secure trading environment.
- Even if a clearing participant goes bankrupt, settlement with the other party will be fulfilled, thereby preventing the risk of a chain reaction of bankruptcies among clearing participants that could have a significant impact on the entire market.

#### **Perceived Strengths**

- High-level risk management with an awareness of global standards
- Providing a wide range of risk-reduction benefits by providing clearing functions in various transactions
- Continual improvement of services through close communications with domestic and international market participants

#### Perceived Risks

- Risk of increased losses incurred at Japan Securities Clearing Corporation and other clearing participants in the event of a clearing participant's bankruptcy due to operations of inadequate or inappropriate risk management systems
- Risk of difficulty to continue operations caused by events such as system failures and disasters

#### Growth Strategy

#### Creating Value

Japan Securities Clearing Corporation (JSCC) acts as the counterparty to claims and obligations among clearing participants regarding transactions conducted in the market and guarantees settlements. Accordingly, even if one clearing participant goes bankrupt, JSCC will deliver money or securities to the other clearing participant. Our role as a clearing organization functioned effectively during the global financial crisis brought on by the collapse of Lehman Brothers, as it helped to prevent a chain reaction of bankruptcies among the clearing participants.

Under this system, the number of transactions and counterparties to which JSCC provides clearing services increases, so market participants can trade safely and securely, which eventually contributes to enhanced liquidity. JSCC has not only been involved in JPX Group markets, it is also actively moving into new fields including the PTS market, OTC derivatives transactions, and OTC JGB transactions. In the last fiscal year, we merged with Japan Commodity Clearing House Co., Ltd., a clearing organization for commodity derivatives transactions, and have also launched clearing services for the creation and redemption of ETFs. We will continue to implement new initiatives based on the needs of market participants.

On the other hand, as the counterparty to a wide variety of transactions, a clearing organization is subject to default risk and is required to build a high-level risk management system and provide proper operations. With awareness of global standards and by making constant improvements, we will continue to strive to ensure that both Japanese and overseas market participants are satisfied with our services. Message from the Officer Responsible for the Listing Division Message from the Officer Responsible for the Trading Division (Cash Equities) Message from the Officer Responsible for the Trading Division (Derivatives) Message from the Officer Responsible for the Trading Division (Commodities) Message from the Officer Responsible for the Clearing Division Message from the Officer Responsible for the Information Services Division Message from the Governor Responsible for the Self-Regulation Division (Market Surveillance and Compliance) | Special Feature: Responding to Technology and Innovation |

### Message from the Officer Responsible for the **Information Services Division**





In addition to strengthening our data business by providing content for information dissemination that contributes to market transparency, we aim to strengthen our index business while transitioning to TOPIX which has an even higher functionality as an investment.

Isaka Yoshihiro

Senior Executive Officer
Tokyo Stock Exchange, Inc.,
Senior Executive Officer
Osaka Exchange, Inc.

Major Stakeholders	Creating Value
Securities companies, information vendors, institutional investors, asset management companies	Providing indices and information services that meet increasingly sophisticated and diversified needs
Start-up companies	Providing the opportunity to create new securities-related services
Retail investors	Providing the opportunity to utilize data in securities investments

#### Resolving Social Issues and Creating Social Value

- Providing opportunities to trade safely with confidence by supplying market information necessary for fair price formation in the cash equity and derivative markets and by developing and providing stock price indices which can be better used as indicators of market trends · Contributing to the spread of ESG investment through the development of ESG indices
- Promoting innovation that will make it easier for investors including individuals to participate in the securities market by providing support in terms of data utilization to start-ups and thereby contributing to further revitalization of the Japanese market

#### Perceived Strengths

- Price-competitive market information fees, even when compared with major overseas exchanges
- A strong client base centered on TOPIX and a highly fair, transparent, and neutral index management system
- Ability to develop new information services that meet the increasingly diverse and sophisticated needs of stakeholders

### Growth Strategy | Creating Value

The Information Services Department provides stakeholders, including securities companies and information vendors, with a wide range of information that meets their diversified needs, such as market information on trading cash equities and derivatives, stock price indices, and various statistical information, as well as timely disclosure of listed company information.

As part of our aim to "Diversify and propel data services into the next generation" specified in our 3rd Medium-Term Management Plan, we are creating new services and developing a new customer base. With the goal of achieving diversification in data services, we are working to develop services for internally generated unpublished data and to improve and add value to existing information that has already been disseminated. We are also strengthening our efforts in collaboration with existing stakeholders, such as information vendors, and with start-ups that create a variety of securities-related

#### Perceived Risks

- Decline in the number of information users due to the Japanese market being less attractive as a result of deteriorating market conditions
- Intensifying international competition in the data business field

services. More specifically, we have created 12 new services in a little over two years through active cooperation with external partners and utilization of the Proof-of-Concept program, initiated in April 2019, for testing of new content for dissemination. We are aiming to strengthen our data business through initiatives to create new services and expand our customer base.

In terms of stock price indices, we will work to strengthen our tie-ups and partnerships while advancing the development of new indices in leveraging the TSE brand. In addition, the introduction of new market segments offers the potential for TOPIX, our flagship index, to evolve into an index that not only keeps market representativeness but also has even more functionality as an investment. Additionally, in light of the ongoing worldwide expansion of ESG investment in recent years, we will work to contribute to the promotion of said investment by developing indices of social significance.

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 Special Feature: Responding to Technology and Innovation

### Message from the Governor Responsible for the Self-Regulation Division (Market Surveillance and Compliance)



Major Stakeholders	Creating Value
Investors	Providing a market where investors can trade with confidence
Listed companies	Contributing to the development of systems that prevent insider
	trading
Securities companies	Contributing to the development of systems that prevent market manipulation
Resolving Social Issues and Creating Social Value	

• Contributing to the sustainable development of the market by utilizing market surveillance to maintain a fair and reliable market and by creating an environment in which investors can trade with confidence

#### **Perceived Strengths**

- Market surveillance that uses cutting-edge technologies, including artificial intelligence
- Highly specialized personnel with expert knowledge of the market
- Neutral position independent of exchanges

#### Growth Strategy Creating Value

In order to provide a market where investors can trade with confidence, it is necessary to maintain fairness and reliability of the market by monitoring for unfair trading practices such as insider trading and market manipulation. At Japan Exchange Regulation, we are constantly working to improve our monitoring functions so as to avoid overlooking any irregularities, even in the midst of ongoing changes in the market environment and increasingly sophisticated investment strategies.

Under "develop a foundation to support the future of our business and society," one of the core strategies in the 3rd Medium-Term Management Plan, we are working to build a trade surveillance system using the latest screening methods. More specifically, with the goal of responding to increasingly sophisticated and rapid trading systems, in 2018 we introduced AI-based systems into the monitoring and surveillance system to quickly process early-stage investigations and allow our human resources to more deeply focus on detailed

#### **Perceived Risks**

Emergence of new types of unfair trading

Unfair trading using off-exchange trading

investigations later, contributing to more precise and in-depth monitoring and surveillance operations. We introduced white box AI technologies in 2020 and are using those in parallel with conventional artificial intelligence technologies to improve accuracy.

We provide training for market participants, seminars for listed companies, and human resource development support for trading participants, which is an important function from the perspective of preventing unfair trading. We worked to continue improving this function in 2020 using online and on-demand formats, considering the conditions brought on by the Covid-19 pandemic, and we also intend to expand opportunities moving forward.

By providing a highly effective surveillance function that responds to these kinds of changes in the environment, we hope to contribute to the provision of a fair and reliable market that is conducive to the enhancement of JPX's corporate value. 

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#### **Special Feature**

### **Responding to Technology and Innovation**

#### JPX's Further Promotion of DX

In recent years, we have seen a tectonic shift in the business environment surrounding exchanges, brought about by diversification in trading venues and the needs of market participants. Having honed our capability to cope with such dramatic changes in the external environment, JPX is conducting various initiatives to seize new business opportunities at its DX (Digital Transformation) Headquarters, established in 2020.

#### Examples of DX Promotion Initiatives

We are conducting reviews designed to seize new business opportunities utilizing various proof of concept (PoC) testing programs. For our main efforts in FY2020, we provided samples of a bilingual corpus and a monolingual corpus, which were created from timely disclosure materials and other sources and examined the possibilities of utilizing that data. JPX has also conducted research on distributed ledger technology (DLT), implemented use case verification in securities post-trade services and confirmed the feasibility and usefulness of the actual operation of the platform. Recognizing that using various data and training data scientists are being promoted in Japan, JPX is providing data by API and learning content such as tutorials on financial data analysis using IT, free of charge, while conducting PoC on its usability.

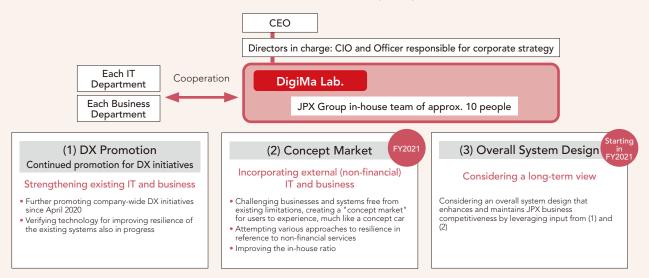
#### **Resilience Improvements**

In addition to these efforts to promote DX, we have established the Center for Advanced Research and Development (commonly known as DigiMa Lab., hereinafter referred to as "the Center"). The establishment of the Center forms part of JPX's response to a proposal published in a November 2020 report from the System Failure Investigation Committee comprised of independent directors: to consider further enhancements to in-house system development capabilities, design supervision, and maintenance capacity.

#### Overview of DigiMa Lab.

The name DigiMa Lab. has two derivations: the abbreviation for Digital Market Laboratory, intended for market development utilizing digital technology; and Dejima—the name of the island that was the sole point of trade with the outside world during the "closed country" period in Japanese history—creating a sense of taking challenges not bound by existing limitations and offering a window to the outside world. The challenges that we will be addressing at the Center will be broadly divided into three parts, as shown in the diagram below: (1) DX Promotion, which we have been working on since 2020; (2) Concept Market that will raise the in-house capabilities of the system and work on new business; and (3) Overall System Design that will explore system designs that allow JPX to enhance its business competitiveness.

Through the Center's work, JPX will be committed to accelerating its digital transformation, further improving its resilience, and enhancing the user experience of all stakeholders, including investors, listed companies, and market participants.



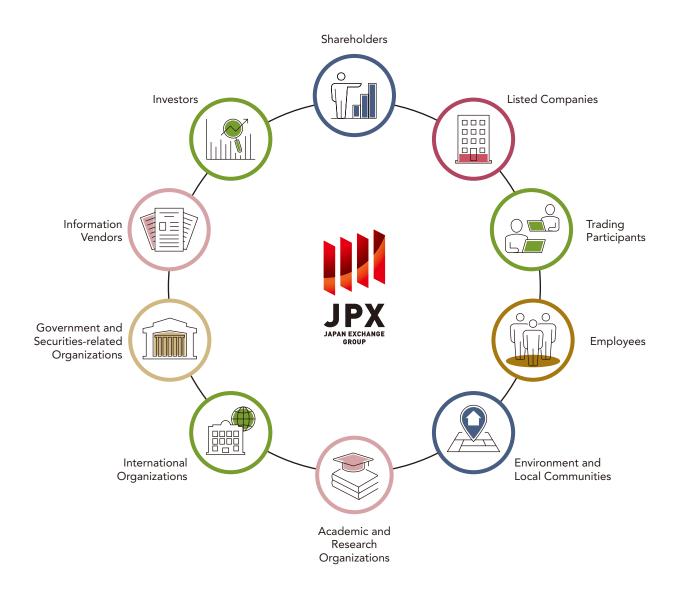
Aiming to Realize an Affluent Society | Value Shared with Investors and Society | Value Shared with Shareholders | Shared Value with Employees | Environment, Communities, Society | Engagement with Trading Participants Listed Company-Focused Initiatives

### Aiming to Realize an Affluent Society

At the UN Sustainable Development Summit in 2015, 17 Sustainable Development Goals (SDGs)—international goals related to the economy, society, and environment—were adopted as a step towards realizing a society that is sustainable, diverse, and inclusive.

JPX's corporate philosophy is to contribute to the realization of an affluent society by promoting the sustainable growth of the market and, by extension, realizing the society envisioned in the SDGs. Under this corporate philosophy and as a member of society, JPX will continue to regularly hold dialogues with a wide range of stakeholders, including listed companies, trading participants such as securities companies, investors, and other related organizations, and aim to contribute to the realization of an affluent society.

For information on JPX's sustainability policies and initiatives, please refer to Chapter 1: Sustainability of JPX (page 13).



### **Engagement with Trading Participants**

#### Approach

By pursuing "the shape of the market" toward the next generation, a core strategy in the 3rd Medium-Term Management Plan, JPX conducts sustainable market operations while working to improve the attractiveness and strengthen the global competitiveness of the Japanese market. Toward this end, it is essential to build trust-based cooperative relationships with trading participants. JPX creates various opportunities to engage in dialogue with trading participants for the purpose of ensuring market transparency and further improving convenience.

#### Initiatives

#### Market Operating Committee

TSE and OSE, operators of JPX markets, have each established a Market Operating Committee as an advisory unit to the Board of Directors composed of outsiders from academia, securities companies, institutional investors, and other areas of expertise. With the aim of creating even more convenient markets, outside expert opinions are considered in decisions on important matters, such as listing new products, establishing new markets, and revising rules or frameworks.

#### Mutual Understanding through Dialogue



Action Program for Strengthening the Functions of the Cash Equity Market

https://www.jpx.co.jp/english/corporate/news/ news-releases/0060/20200130-01.html

# Exchanging Views with Representatives of Securities Companies and Others

We believe that communication with securities companies is very important for sustainable exchange operations. We therefore periodically hold events to exchange views with representatives of trading participants as well as exchange views through close communications with staff in charge at securities companies and institutional investors.

During the Council for Recurrence Prevention Measures set up in response to the cash equity trading system failure in October 2020, we discussed with a variety of market users, including securities companies, rules and procedures for resuming trading after a trading suspension resulting from a system failure and compiled a summary of measures.

We will strive to improve the resilience of and recover trust in the markets by steadily implementing these recurrence prevention measures in the future. At the same time, we are aiming to further increase convenience and transparency to create a more attractive market for trading participants and other users by implementing various measures included in the "Action Program for Strengthening the Functions of the Cash Equity Market," which was released in January 2020 as matters that should be addressed to reinforce the overall functions of securities markets in Japan.

#### Comments from Staff on the Ground

Web



Maekawa Kazutoshi Manager Equities Department Tokyo Stock Exchange, Inc.

### Value Shared with Stakeholders/Value for Resolving Social Issues

Launch of the "CONNEQTOR" RFQ Platform

ETFs are useful products for both retail investors and institutional investors from the standpoint of portfolio diversification at a low cost, high transparency, and the flexibility to buy and sell them. Stock exchanges have also worked to increase the liquidity of ETF markets through the introduction of market making schemes.

In February 2021, we launched "CONNEQTOR," an RFQ platform (a system in which institutional investors, primarily, send out a request for a quote of a particular ETF at a particular quantity, etc. that they wish to trade at once to multiple market makers in order to facilitate trading), for the purpose of streamlining large-scale transactions that are difficult to execute in auction sessions. This move has brought about close communications among institutional investors, securities companies, and market makers, thereby enabling faster, better-priced ETF trades. CONNEQTOR has undergone repeated functional improvements based on the needs of its users, and new functions have been released each month since the service began.

In order to provide a highly convenient trading environment for ETFs going forward, we will continue to improve our framework and systems while placing importance on communication with market participants.

Aiming to Realize an Affluent Society | Value Shared with Investors and Society | Value Shared with Shareholders | Shared Value with Employees | Environment, Communities, Society | Engagement with Trading Participants
Listed Company-Focused Initiatives

### **Listed Company-Focused Initiatives**

#### Approach

JPX's vision of sustainable market development and the creation of an affluent society hinges on the participation in its markets of a diverse range of investors from around the world and the sustainable growth of its listed companies. JPX therefore strives to develop an environment that supports listed companies in their efforts to increase corporate value by building a highly convenient, efficient, and transparent market foundation.

#### Initiatives

#### Market Restructuring

In order to support the sustainable growth and medium- to long-term improvement of corporate value among listed companies, and to provide an attractive market that enjoys strong support from a diverse base of investors at home and abroad, JPX will restructure the existing four market segments at TSE (First Section, Second Section, Mothers, and JASDAQ) into three market segments (Prime Market, Standard Market, and Growth Market) on April 4, 2022.

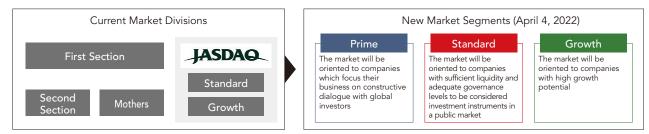
In December 2020, we announced the details for the new market segments' listing requirements and the transition process for listed companies preparing for transition to the new market segments. Starting in September 2021, we will begin procedures for each listed company to actually choose one of the new market segments on which they would like to be listed.

#### Corporate Governance Code

TSE formulated the "Corporate Governance Code," which compiles the fundamental principles intended to help achieve effective corporate governance, in an effort to promote enhanced governance at listed companies in Japan. In anticipation of the transition to the new market segments, TSE revised the Corporate Governance Code during June 2021 to address the features of each segment. At the same time, this move is also intended to encourage listed companies to enhance corporate governance in aims of achieving sustainable growth and greater corporate value over the medium to long term.

See page 14 onwards for EGS-related information.

#### Market Restructuring



Comments from Staff on the Ground

Value Shared with Stakeholders/Value for Resolving Social Issues



Isogai Shuhei Listing Department Tokvo Stock Exchange, Inc.

#### Toward Realizing an Attractive Cash Equity Market

When the exchange markets in Tokyo and Osaka were integrated in 2013, we maintained the market segments as they were to ease the burden on listed companies and avoid confusion among investors. In recent years, however, market participants have noted several shortcomings, including the fact that concepts for each market segment are ambiguous and that listed companies lack incentive to improve their corporate value.

In response, we have continued to hold repeated discussions with market participants and have been making considerations for a review since 2018. Thus far, we have progressed as scheduled on developing the rule-based framework for the transition and will finally embark on a move to the new market segments in April 2022. While continuing to work toward a seamless transition and undertaking efforts to ensure stable systems for operating the new framework thereafter, we will strive to facilitate an understanding of and publicize the move in order to fully achieve the goals of restructuring.

Financial Literacy and Economic Education Promoting International Cooperation Facilitating Studies and Research

# Value Shared with Investors and Society

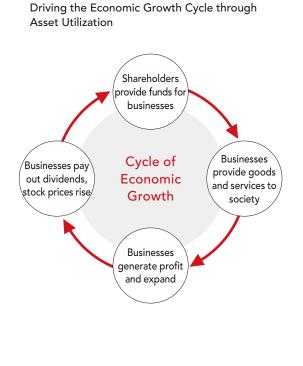
**Financial Literacy and Economic Education** 

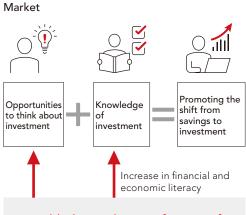
### Role of Financial Literacy and Economic Education

Faced with problems of a shrinking workforce and the limits of its social security system, the major task at hand for Japan is figuring out how to use its assets as efficiently as possible to generate economic growth for the next generation. JPX believes it can help to address these issues by raising the financial and economic literacy of each and every member of society and by pushing for a shift from savings to investment. To this end, JPX implements various initiatives.

In Japan, households hold ample financial assets totaling more than JPY 1.95 quadrillion. However, these assets are not being fully utilized. Statistics on the composition of Japanese household assets indicate that cash and deposits account for a high proportion, approximately 54% of the total, while stocks and other investments account for only approximately 13%. In particular, cash and deposits account for more than half of all household assets. If just a portion of this were to be invested in publicly traded companies, companies could increase production and provide new products and services, which will in turn bring about business expansion, create more jobs, and increase wages. We recognize the need to promote the shift from savings to investment to create a virtuous cycle in the Japanese economy.

At the same time, there is no guarantee that the existing social security system will be able to continue providing sufficient financial support for the elderly in the era of "a 100-year life" where more and more people will live for 100 years. Every one of us must each build our own assets in a manner suited to the different phases of our lives.





Initiatives to Encourage Participation in the

#### Highlighting the significance of investment and offering information to deepen investment knowledge

Aiming to Realize an Affluent Society | Value Shared with Investors and Society | Value Shared with Shareholders | Shared Value with Employees | Environment, Communities, Society |

 Financial Literacy and Economic Education Promoting International Cooperation Facilitating Studies and Research

#### Approach

JPX engages in a variety of educational activities while considering the most effective approach for a broad range of age groups, from elementary school students to adults, and for people who have investment experience and those who do not. We believe these activities lay the foundations for supporting the future of businesses and society, by showing the attractiveness of investing to retail investors and improving financial literacy to accommodate an aging society.

We have primarily held these activities online since FY2020 as a means of preventing the spread of Covid-19. Specifically, we have streamed live seminars, released archives of past videos on the Official JPX Group Channel on YouTube, and conducted remote lectures using teleconferencing systems.

#### Initiatives

#### For Children and Students

Outreach to Schools (Elementary through High School) Although our daily lives are closely related to the economy and stock companies, there are very few opportunities to learn about these topics in school. To address this situation, JPX sends staff to schools to speak during politics & economics or civics classes. They give lectures on how stock companies work and mix in some roleplay and skits to help students familiarize themselves with financial and economic concepts. During FY2020, JPX held 43 online classes for approximately 2,844 participants.



Outreach to Schools

#### Economics Lectures for Parents and Children (Elementary and Junior High School Students)

JPX holds many events in a typical year, mostly during summer vacation, for elementary and junior high school students and their families to familiarize them with financial and economic concepts.

In a typical year, OSE holds a program called "Learning with Children - Finance and Stocks Summer School," for elementary school students in collaboration with the Osaka prefectural government's finance and public relations committee, Japan Securities Dealers Association, and other organizations. The students learn about finance and stocks as they visit key financial and economic facilities in Osaka.

In FY2020, in order to prevent the spread of Covid-19, this event was canceled, and educational videos were streamed to parents and children instead.

#### **Economics Lectures for School Teachers**

JPX provides seminars for junior high and high school teachers mainly during summer vacation, aiming at equipping teachers with economic knowledge and concepts that will aid them in their teaching. In FY2020, JPX held the Winter Vacation Economics Seminar for Teachers and the Spring Economics Course for Teachers in an online format for around 280 teachers in total. JPX also sends staff to speak at training and study sessions for teachers.

#### JPX Entrepreneur Experience Program (Junior High and High Schools)

The JPX Entrepreneur Experience Program aims to give students the experience of setting up and running a pseudo stock company that operates a bazaar stall. This program allows participants to learn and gain the ability to think on their own and, thereby, contributes to the development of more well-rounded individuals. Carried out in collaboration with schools and regional communities as part of JPX's activities to support financial literacy, in FY2020, the program was held primarily online in four locations across Japan and drew about 146 participants.

#### Lectures for University Students

Based on the requests of universities nationwide, JPX holds online courses intended to substantially deepen the understanding of finance, economics, securities markets and derivatives markets among those university students who will soon be shouldering responsibility for the Japanese economy. We also introduced the facilities at TSE (TSE Arrows) and OSE via online lectures so that students could attend while becoming familiar with these exchanges. In FY2020, 80 lectures were held as part of this program, attracting around 8,300 attendees in total.

To help nurture the next generation of leaders, JPX holds sponsored courses and joint courses at a number of universities. The courses cover the latest developments in law, economics, management and accounting related to the securities market, along with the roles expected of listed companies.



Lectures for University Students

#### For Working Adults

#### JPX Academy

JPX provides opportunities for all ages who aspire to learn about finance, economics and asset building, and is working to enhance them.

JPX Academy offers information from a neutral position on various subjects relevant to asset building and management, including financial products ranging from equities such as stocks and exchange traded funds (ETFs) to derivatives, as well as macroeconomic trends and the latest economic theories. During FY2020, we conducted online seminars that were attended by around 300,000 individuals over 64 sessions.

We also provide opportunities to convey the attractiveness of investing to those who have not previously



Left: Hoshino Koki (gpanpanda) Center: |ppei (gpanpanda) Right: Yokoyama Kazuki (Associate Professor, Graduate School of Economics, Faculty of Economics, Nagoya City University)

### Recording a program on economics through the eyes of Shibusawa Eiichi at RADIO NIKKEI

had an interest in economics and investment through a variety of efforts, including producing a radio program in cooperation with RADIO NIKKEI that combines investing concepts with a variety of other topics.

#### Joint Projects with Securities-related Groups and Organizations

JPX collaborates with groups and organizations in the securities industry to jointly offer ongoing programs which promote a deeper and wider understanding of securities over the long term. Activities include providing schools with educational materials for financial education and holding lectures and seminars for adults.

#### Sending Speakers to Listed Companies

To provide employees of listed companies and other organizations with opportunities to learn more about securities markets and asset building in training and study sessions, we provide a service to send JPX staff well-versed in finance and capital markets as speakers to listed companies. The sessions aim to help attendees build assets in a way best suited to their needs by enhancing their financial literacy and increasing their interest in asset management. Therefore, the lecture contents are flexibly customized to meet individual needs and include topics such as how to use your money to realize your life plan and pointers for using defined contribution pension plans, such as DC/iDeCo, and NISA.

In FY2020, this service was used mainly as part of online in-house training and new employee training. The sessions were held for approximately 30 companies and organizations and were attended by more than 1,400 individuals.

#### For All Generations

#### Announcement of Brand Stocks

Together with the Ministry of Economy, Trade and Industry (METI), TSE selects and announces listed

#### Comments from Staff on the Ground

Value Shared with Stakeholders/Value for Resolving Social Issues -



Sakakura Yuka Financial Literacy Support Department Tokyo Stock Exchange, Inc.

### Continuing to Provide Opportunities to Acquire Financial Knowledge

I am in charge of TSE guided tours for university students and young adults, and planning finance and economics seminars for educators. JPX engages in financial education because we want to support everyone, whenever possible, in acquiring a proper understanding of these subjects as asset building becomes more important.

With the aim of ensuring that future active members of society develop an interest in economic trends and acquire a broader perspective, we are continuing to offer opportunities to acquire financial knowledge, even while there are restrictions for going out. In order to do so, we have taken steps to provide to even more individuals the chance to touch upon the fields of finance and economics by holding for example, online seminars.

We will continue to provide opportunities to learn about finance and economics in a way that allows those who will be building assets in the future and for each and every individual to think independently and have more options for living their lives.

#### Chapter 4 Approach to Creating New Value–Value Created with Stakeholders

Aiming to Realize an Affluent Society | Value Shared with Investors and Society | Value Shared with Shareholders | Shared Value with Employees | Environment, Communities, Society |

Financial Literacy and Economic Education Promoting International Cooperatio Facilitating Studies and Research

companies from among each sector that are engaged in superior efforts in regard to specific themes. This initiative serves as a means of generating interest among retail investors and providing them with an opportunity to consider stock investments.

Theme	Nadeshiko Brands	Health and Productivity Stocks	DX Stocks
Number of Companies	45 (27 sectors)	48 (29 sectors)	28 (24 sectors)
Most recent publication date	March 22, 2021	March 4, 2021	June 7, 2021
Details	Selection of companies actively engaged in encouraging women's participation in the workplace, including developing an environment that enables women to continue working through all life stages.	Selection of companies engaged in health management for employees, etc., from a corporate management perspective.	Selection of companies that have exhibited superior use of digital technologies as part of their efforts to advance digital transformation (DX).

#### Special Website: TSE's Money Club

TSE's Money Club (TSE Money-bu) is a website where we publish information daily to promote asset building by retail investors (currently available only in Japanese). The purpose of this website is to help as many people as possible on their way to growing their assets by providing information about the importance of asset building through long-term, diversified investment. The website presents stories about the role of money in familiar situations, using language that is easy to comprehend even for inexperienced investors. The website is designed to be accessible to varied age groups: for



### on the Ground

TSE's Money Club website Comments from Staff Value Shared with Stakeholders/Value for Resolving Social Issues

example, it includes explanatory videos, infographics which explain things in an easy-to-understand visual form, and articles about post-retirement finance in preparation for a 100-year life. We also consciously try to deliver information to those who have little to no interest in investing, by reaching out through social networking sites and popular news apps. In FY2020, we published more than 460 articles, the highest number in the website's history.

Special Tool: The "What-if" Investment Returns Calculator JPX launched a "What-if" investment returns calculator to encourage individuals to think about long-term asset building in an attempt to ease any fears they may have about investing while showing them the outcome of building assets by investing in stocks through a fun and easy game. After entering a certain year to start investing, the user can pick different companies to invest in to better understand how time and asset diversifications affect investment returns.





Special Tool: The "What-if" Investment Returns Calculator (only in Japanese) https://jpx-game.com/simulation

#### Visits to JPX Facilities

To give everyone a better first-hand understanding of exchanges, JPX opens its facilities to groups and individuals from elementary schools to universities and the general public. In a typical year, we welcome more than 50,000 visitors.



At present (as of July 2021), visits to JPX facilities are temporarily suspended in order to prevent the spread of Covid-19.

Visits to JPX Facilities



Tomita Takayuki Manager Financial Literacy Support Department Tokyo Stock Exchange, Inc.

Contributing to Higher Market Value by Expanding the Base of Individual Investors

At the Financial Literacy Support Department, we primarily cater to general retail investors and students, conveying to them the importance of asset building in the era of 100-year life spans and shift their opinions on investing from "indifference" to "interested." My duties include event planning and speaking at seminars, as well as running the TSE Money Club site. As well as offering accurate information from our neutral position as an exchange, we design our initiatives to lead to independent action by instilling a sense of purpose among the recipients.

From the perspective of securing a diverse range of participants in the market, expanding the investor base is an extremely important mission for us as an exchange. Likewise, from a bigpicture view of enriching the lifestyles of each and every citizen, I believe that it is not just the duty of this department but the responsibility of JPX as a market operator to facilitate an understanding of capital markets and to provide ongoing educational activities for individuals with the goal of having them take a greater interest in asset building.

### **Promoting International Cooperation**

#### Approach

At JPX, through activities with international organizations, we gather information and express views about trends in international regulations. At the same time, we collaborate with overseas exchanges to strengthen our business foundations in other countries.

JPX also provides technological assistance to develop capital markets in other countries, especially in Asia. Through such assistance, we aim to create business synergies over the long term while fulfilling our social responsibility as a corporation.

#### Initiatives

#### Contributing to International Organizations

#### World Federation of Exchanges (WFE)

WFE is the global industry group composed of members from exchanges and clearing organizations around the world, and is engaged in making policy recommendations and conducting surveys and research about capital markets. It also collects and provides statistical data. Key themes that WFE is focusing on include heightening resilience for stable market operations, the role exchanges have in generating market data, as well as protecting and providing education to investors. JPX actively participates in these activities as a member of the WFE Board of Directors.

### Asian and Oceanian Stock Exchanges Federation (AOSEF)

AOSEF is a regional federation of 18 exchanges for the Asia-Oceania region. AOSEF aims to facilitate information sharing among member exchanges. JPX serves as the secretariat for AOSEF, promoting research initiatives while also leading the General Assembly and Working Committee. Starting in 2021, AOSEF has been seeking to further invigorate its activities through new initiatives such as offering members an online venue for discussions.



AOSEF Online Working Committee

# Trainees from Overseas Exchanges (commissioned by JICA)

Commissioned by the Japan International Cooperation Agency (JICA), JPX accepts trainees from exchanges and related organizations of various countries and provides them with training based on the developmental status of each exchange, thereby contributing to the development of their securities markets.

Recently, the impact of Covid-19 has made it impossible for overseas trainees to visit Japan, so we have continued training through the use of online lectures and other means.

#### Comments from Staff on the Ground

Value Shared with Stakeholders/Value for Resolving Social Issues



Andrew Wong Manager Global Strategy Department Japan Exchange Group, Inc.

#### Fostering global connections

Global Strategy consists of several different groups, each handling a different facet of our international relations and collaboration work. We have a team helping to prepare English material, while a handful of people are engaged in global business initiatives and representing the exchanges' interests in the international arena. We work with foreign exchanges to explore business opportunities and deepen collaborative ties. In FY2020, efforts were made to broaden the coverage of the Japan-China ETF Connectivity scheme, which links the ETF markets of the two countries to promote mutual listings of ETFs. While we keep an eye on regulatory trends on the global and regional levels, and in the world's leading financial markets, we also introduce developments in Japan to foreign visitors when the chance presents itself.

Our work goes toward fostering connections and making meaningful contributions to society on a wider, global level.

Financial Literacy and Economic Education Promoting International Cooperation Facilitating Studies and Research

Aiming to Realize an Affluent Society | Value Shared with Investors and Society | Value Shared with Shareholders | Shared Value with Employees | Environment, Communities, Society | Financial Literacy and Economic Education Promoting International Cooperation

Facilitating Studies and Research

### **Facilitating Studies and Research**

#### Approach

Core strategy IV in the 3rd Medium-Term Management Plan refers to the development of a foundation to support the future of our business and the society. As part of this strategy, by conducting surveys and research, JPX works with external researchers to assess and study the various factors affecting markets, legal systems, and related changes. The results of these surveys and research are used when considering JPX measures and are broadly disseminated to society, including market users such as securities firms and investors.

#### Initiatives

#### JPX Working Papers

With a view to enhancing its competitiveness, JPX compiles surveys and research on the market environment carried out by its executives and employees or external researchers as JPX Working Papers. As a part of those activities, we have published various papers on the applicability of blockchain/ distributed ledger technology to capital market infrastructure, as well as analysis results utilizing transaction data.

#### JPX Working Papers Published in FY2020

	Title
Jan. 28, 2021	Analysis of Detail Breakdown Trading Data (Margin Transaction
Jdf1. 20, 2021	and Short Selling)
Dec. 14, 2020	Report on Pilot Test of DLT Information Sharing Platform in the
Dec. 14, 2020	Field of Securities Post-Trade (Project Name: B-POST)

#### JPX Working Papers

Web

, https://www.jpx.co.jp/english/corporate/research-study/ working-paper/index.html

#### Joint Research with The University of Tokyo

JPX is working with the research team under Professor Izumi Kiyoshi of the Department of Systems Innovation, School of Engineering at The University of Tokyo to conduct joint research related to technologies and system

#### Comments from Staff on the Ground

design for the stable and efficient operation of financial instruments exchange markets. We are moving forward with research such as the use of artificial market simulations to virtually create conditions that cannot be observed in the actual market. The results of this research are published, where appropriate, as JPX Working Papers.

#### JPX Study Group on the Financial Instruments and Exchange Act

JPX is holding a study group on Japan's Financial Instruments and Exchange Act to provide a platform for research on various legal issues related to the financial instruments market and will make the results widely available in Japan and abroad.

This study group is composed of more than 20 up-and-coming researchers, who generally meet once a month to present reports and hold discussions. Along with posting of the minutes and reports of this study group on the JPX website, the reports are periodically compiled into booklets that are distributed to researchers and organizations concerned.



Study Group on the Financial Instruments and Exchange Act (only in Japanese) https://www.jpx.co.jp/corporate/research-study/ research-group/index.html

Value Shared with Stakeholders/Value for Resolving Social Issues



Doi Nobushige Fintech Laboratory Corporate Strategy Department Japan Exchange Group, Inc.

#### From Research to Contributing to Business

The Fintech Laboratory studies and researches the latest technologies, which it endeavors to apply to JPX's businesses and new services. In addition, by disseminating its research results across a wide range of channels, we can contribute to the sophistication and streamlining of the entire financial industry. This is in turn expected to lead to a positive impact on the business of JPX.

As a part of our efforts in this area we launched the "Timely Disclosure Corpus Service." Corpus is an accumulation of digitalized natural language sentences utilized for research on natural language processing and serves as a platform for Al-based document processing and machine translation. In the Fintech Laboratory we utilized the results obtained from existing studies and research on the timely disclosure documents of listed companies and have created this corpus by extracting text from timely disclosures and other documents. Since its launch in September 2020, this service has been leveraged by users that include machine translation vendors, public institutions, and those in a variety of other fields. We aim to build upon the feedback received to develop the service even further.

### Value Shared with Shareholders

#### Approach

JPX is focusing on promoting two-way communication with its shareholders and investors and building relationships of trust based on mutual understanding. JPX actively provides investors with the corporate information necessary for their investment decisions and shares views obtained from shareholders and investors with senior management, thereby further enhancing corporate value.

#### Initiatives

#### **Engagement with Shareholders**

#### **General Shareholders Meeting**

The notice of the annual general shareholders meeting (AGM) is sent out three weeks ahead of the meeting to ensure that all shareholders are given sufficient time to decide how to exercise their voting rights. With regard to electronic information, the Japanese and English versions of the notice are made available on the JPX website four weeks prior to the meeting and are also simultaneously available to overseas shareholders via the Electronic Voting Platform for Institutional Investors provided by Investor Communications Japan, Inc. (ICJ). In addition, in creating its notices of general shareholders meetings, JPX is including a variety of information, such as its Medium-Term Management Plan and corporate governance structure, and promoting the use of more images and charts as part of its efforts to present the information in a more easily understandable format.

The AGM is attended in person not only by the directors and executive officers of JPX, but also the directors of its subsidiaries and affiliates. This is so that the broad range of shareholder questions, which cover the activities of the corporate group, can be answered appropriately by the right people, including those from subsidiaries.

JPX held its AGM for FY2020 on June 16, 2021. We also streamed this AGM live on the Internet for

shareholders who did not attend in person, and have made the video available on demand via the JPX website.

Shareholders can send in their votes via the Internet or the electronic voting platform, as well as by post. At the June 2021 AGM approximately 92% of voting rights were exercised.

(TRAVAL 47X/9)
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Security Cale 201
March 201
Notice of the 20th Annual General Shareholders Meeting
Dear Shareholder,
We are pleased to inform you that the 20th Annual General Shareholders Meeting of Japan Exchange Group.
Inc. (hereinafter the "Company") is scheduled to be held as described below.
With a view to preventing the spread of the novel corerawinus, we ask you to reconsider your attendance in
with a view to preventing the spread of the novel correlations, we ask you to reconsider your attendance in person regardless of your condition of health. If you are not attending in person, we encourage you to
exercise your votine rights either in writine or via the Internet. Please review the items in the reference
documents for the seneral shareholders meeting described in this Notice and indicate your approval or
dispersival either by returning the enclosed form for exercise of voting rights or via electromagnetic means
by accessing the website indicated in the form. Votes must be received by 4-45 n.m. (RST). Tuesday, Jane
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Sincerely years,
Kivota Akin
Director & Representative Executive Officer, Group CEO
Japan Exchange Group, Inc.
2-1, Nihombushi-Kabuto-cho, Chuo-ku, Tokvo
Chao-ku, Tokyo
Regarding exercise of voting rights
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Notice of Annual General Shareholders Meeting



General Shareholders Meeting https://www.jpx.co.jp/english/corporate/investorrelations/shareholders/meeting/index.html

#### Comments from Staff on the Ground



Value Shared with Stakeholders / Value for Resolving Social Issues



Mori Shohei Manager General Administration Department Japan Exchange Group, Inc.

#### Deepening Shareholders' Understanding of JPX

JPX considers the AGM as an opportunity for constructive dialogue to deepen all shareholders' understanding of JPX. While working to expand the published information and promoting the use of more images and charts so that notices of general shareholders meetings will be easier to understand, we are aiming to enhance dialogue by making efforts to announce and send out such notices in a timely manner so that they can be seen by shareholders as soon as possible.

For the AGM held in June 2021, we strongly recommended, as we had done last year, that shareholders send in their votes by mail or via the Internet as a measure to prevent the spread of Covid-19, and we appreciate their cooperation. In addition, this AGM was streamed live on the Internet for shareholders who could not attend in person. Going forward, I would like to enhance dialogue while watching how the Covid-19 situation develops.

## Engagement with Institutional Investors and Analysts

#### **IR** Meetings

JPX engages with domestic and overseas institutional investors and analysts through, for example, meetings between investors and senior management. In FY2020, JPX held all the meetings online, including IR conferences in Japan and abroad, due to the spread of Covid-19. We are striving to increase opportunities for dialogue with institutional investors and analysts while ensuring safety. Feedback from institutional investors and analysts obtained through such meetings is presented periodically to the management and related departments, and then reflected into management of JPX Group.

#### **Earnings Briefings**

In FY2020, JPX held two earnings presentations to provide opportunities for dialogue between investors and senior management. Video and audio recordings of the briefings are made available in Japanese and English on the day or soon after as a part of our commitment to providing domestic and overseas investors with information in a timely manner.



FY2020 online earnings presentations

and Investors

#### **Engagement with Retail Investors**

We held a total of three online JPX outreach events for retail investors. JPX also actively provides information to retail investors on its IR website. For example, in addition to providing content that offers an easy-to-understand overview of JPX, we deliver documents, videos, and other content on IR events in a timely manner.



Online briefing for retail investors







For retail investors (only in Japanese) https://www.jpx.co.jp/corporate/investor-relations/ individual/index.html

IR Email Distribution Service (only in Japanese) https://www.jpx.co.jp/corporate/investor-relations/ ir-mail/index.html

#### Comments from Staff on the Ground

Value Shared with Stakeholders/Value for Resolving Social Issues



Takahashi Hiroyuki Manager Corporate Communications Department Japan Exchange Group, Inc.

### Increasing Corporate Value through Meaningful Dialogue with Shareholders

JPX engages in constructive dialogue with shareholders and investors with the aim of achieving sustainable growth and increasing corporate value over the medium to long term.

Our aim is to have a high-quality, virtuous cycle of dialogue, gained through a deep understanding of the respective opinions and aspirations of JPX and its shareholders and investors. Recently, the Covid-19 pandemic has made it very difficult to hold individual face-to-face meetings, but we have stepped up efforts to engage in conversations over the telephone and through online meetings.

We sometimes receive harsh criticism of JPX in the course of our dialogues, but even so, with the intent of making sure that as many shareholders or investors as possible support JPX over the long term, we do our utmost to have meaningful dialogues with our shareholders and investors based on persistent ingenuity.

### Shared Value with Employees

#### Approach

Human resources are one of the most important resources for enabling JPX to sustainably increase its corporate value. Under the 3rd Medium-Term Management Plan, JPX has identified human resources development and implementing work style reforms as keys to strengthening its business foundation. To bring out the best in each and every employee, JPX endeavors to develop enhanced training programs and create comfortable working environments for them.

#### Initiatives

#### Human Resource Development

JPX has created an environment where employees can actively pursue specialized knowledge, assimilate the latest information, and obtain a broad perspective with free and creative thinking. Specifically, depending on an employee's length of service and job responsibilities, the programs provided vary and encompass career training to enhance knowledge and skills, skills improvement training to acquire foreign languages and gain advanced expertise, professional career building support to obtain an MBA or other advanced degrees at overseas universities and more.

#### Human Resources Development and Training Programs



#### **Promoting Diversity**

For JPX, "promoting diversity" means that each and every employee has mutual respect for each other's differing values and lifestyles. In short, JPX believes that, by accepting diversity, individual employees will be able to work energetically and create new value (innovation) that leads to overall organizational growth. Based on these beliefs, JPX is promoting the development of a work environment that accepts and supports ways of working which fit in with diverse values and lifestyles.

From the viewpoint of supporting employees' desire to continue working, we are advancing initiatives to give impetus to the active participation of a variety of employees. These initiatives include introducing support systems for employees living with a medical condition as well as for maternity, childcare and adult caregiving, promoting women's careers, and enhancing the post-retirement reemployment system to meet diverse workers' needs. By continuously implementing a raft of measures to reform working culture throughout the Group, we are also aiming to create more comfortable workplaces and build a more robust organizational foundation for the future.



FY2021 welcome ceremony

### Support System for Balancing Work with Diverse Lifestyles

 Improving Maternity, Childcare and Adult Caregiving Support Systems

At JPX, we are working to create comfortable working environments so that employees with limited time available—for example, due to childcare, adult caregiving or receiving treatment for a medical condition—can make the most of their abilities. In particular, to make it possible for male employees to participate in childcare and share housework, we have introduced paternity leave as a type of paid leave, and created an environment where employees feel comfortable taking it, in addition to the legal requirement for childcare leave support systems.

We have also introduced family care leave and nursing care leave exceeding the legal requirements for adult caregivers, and a system for flexible shortened working hours. Leave for adult caregivers can be taken on an hourly, half-day or daily basis, and we also hold ongoing "caregiver seminars" in support of balancing both work and caregiving. The caregiver seminars provide

information and promote understanding of adult caregiving, so that employees shouldering this burden, the number of which is expected to increase in the future, can continue to balance caregiving with work.



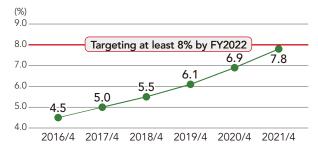
Web Diversity, Employee Advancement, and Work Style Reforms

https://www.jpx.co.jp/english/corporate/sustainability/ jpx-esg/employee/index.html

#### Career Advancement for Female Employees

From the viewpoint of encouraging a higher level of participation from female employees, we have advanced a variety of initiatives, including career training programs for female employees and supporting networking with career-minded female employees from other companies. JPX has set a numerical target of at least 8% female employees in managerial positions (7.8% as of April 2021) to be achieved through the above measures by FY2022. In FY2020, JPX promoted two female employees to Department/Section Director. In the years to come, we will continue to increase the ratio of women in managerial positions, with a view to cultivating and securing human resources with the skills needed for director and executive positions.

#### Ratio of Women in Managerial Positions



#### The Diversified Reemployment System

JPX has a reemployment system in place that enables employees to select part-time work after reaching retirement. Through this system, JPX is working to keep valuable human resources, while making it possible for reemployed employees to continue working.

#### Employment of Persons with Disabilities

Under the principle of "Competency (Harnessing Employee Talent)" laid out in the JPX Creed, in addition to encouraging female employees and those of an advanced age to actively participate in the workplace, JPX also offers employment opportunities for persons with disabilities according to the individual's abilities and aptitudes.



Recognized as a White 500 Organization, an outstanding entity engaging in health and productivity management.

#### JPX Work Style Reforms

In response to internal and external environmental changes, as well as personnel issues, JPX is implementing working style reforms through flexible business operations and working to improve productivity, so that the entire JPX organization can achieve sustainable growth.

For JPX, the work style reform program is a collaboration between the company and its employees. JPX is undertaking initiatives to create an environment that allows greater flexibility in work styles and create more time after work. The reform is expected to change employees' mindset about work hours and productivity, as well as their work styles, and to provide more opportunities for after work activities that will be positively reflected back at work.

#### Initiatives during the Covid-19 Pandemic

As part of our work style reforms, we are working to enable flexible work styles by introducing remote work and flexible hours systems.

Amid the unprecedented situation presented by the Covid-19 pandemic, we are implementing thorough infection control measures such as having all employees actively utilize these systems to work remotely and

Overwork prevention	Every month, we conduct checks into employees' working hours, including those at the managerial level. To prevent long working hours from damaging an employee's health, we use our own standards to identify employees' health issues early on.
Diversifying leave systems	JPX has established systems for Professional Development Leave and Leave to Accompany Spouse for cases such as when an employee chooses to study abroad or his/her spouse is given an overseas assignment, allowing for flexible work styles that adapt to employees' diverse life plans.
Reemploying former employees	JPX also has a program in place for reemploying individuals who decided to resign from JPX in the past for such reasons as childcare. The program offers ambitious and talented former employees an opportunity to once again contribute to and excel at JPX.
Increasing opportunities for employees to engage in after work activities	JPX supports employees who would like to engage in activities for personal development during the extra time made available by the work style reforms via raising the amount and number of subsidies offered and expanding the number of eligible courses for skills development training.
Reforming corporate culture	JPX is working on reforming the corporate culture and encouraging employees to re-evaluate their ethical behavior by offering lectures on work style reforms, running e-learning courses, regularly providing information, making efforts through employee outreach, and so forth.

#### Specific Work Style Reforms at JPX

stagger working hours. As a result, we have been fulfilling our responsibility as a provider of social infrastructure by maintaining stable market operations while ensuring the safety and security of our employees and their families.

#### Toward a Positive, Rewarding, and Harassment-Free Work Environment

JPX takes into consideration individual rights and safety in the workplace to create an environment where all employees are able to work as productively as they can. Therefore, JPX stipulates "respect for human rights and antidiscrimination" in its Charter of Corporate Behavior, which prohibits all forms of harassment or bullying such as sexual harassment and those based on seniority or maternity/paternity, as well as unfair discrimination against those who identify as LGBT. We ensure that all employees can easily and safely consult with the relevant contacts if they are victims of or witness any type of harassment, through access to direct consultations with HR and a Compliance Hotline that also accepts anonymous calls. We also provide detailed training to raise understanding of harassment and appropriate actions to take for eliminating harassment. We will continue with these efforts to provide workplaces where employees can work with confidence, be motivated and be free from discrimination or harassment in all its forms.

#### JPX Health Management Declaration

In order to bring out the best in each and every employee, JPX proactively encourages employees to maintain and improve their mental and physical health.

#### Health Management

To help employees and their families maintain and improve their health, we are making efforts to understand the health status of all of our employees and detect any abnormalities at an early stage. JPX also provides monetary assistance for examinations to facilitate the early detection of a range of cancer types.

#### Mental Health Care

JPX has made counseling available within and outside the company to ensure that employees can work while maintaining both their physical and mental well-being. In addition to interviews with psychiatrists as needed, we also provide information for prevention of mental illness.

#### Safety and Health Initiatives

To provide a safe and healthy work environment, JPX organizes a monthly health committee, facilitates workplace inspections by an occupational health physician, conducts management of long working hours and late-night work, and performs stress checks.

#### Comments from Staff on the Ground

Value Shared with Stakeholders / Value for Resolving Social Issues



Saito Towako Human Resources Department Japan Exchange Group, Inc.

### To create workplaces where employees with various values can each work to the best of their abilities

The Human Resources Department is conducting a variety of initiatives to support the success of employees so that JPX can fulfil its role to "keep the market secure" as an infrastructure that underpins Japan's economy and society. When hiring employees, we consciously focus on creating an organization which gathers people with diverse values, by listening carefully to each person's individuality and ideas while utilizing online communication tools. Also, in our training programs we provide opportunities for learning through self-improvement and in-house exchanges through a "cafeteria" system, where employees can freely take lessons related to work in which they are interested, and a "private school" system, which provides a place for knowledge exchange across departments. We will continue to strive to provide market users with creative and attractive market services by working to create workplaces where each and every employee can work to the best of their abilities.

#### Employees<sup>1</sup>

	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
No. of employees by gender						
All	1,088	1,085	1,093	1,110	1,208	1,197
Male	796 (73.2%)	792 (73.4%)	803 (73.4%)	805 (72.5%)	875 (72.4%)	859 (71.8%)
Female	292 (26.8%)	293 (26.5%)	290 (26.5%)	305 (27.4%)	333 (27.6%)	338 (28.2%)
Average years of service						
All	16.7	17.0	17.1	17.3	17.0	17.4
Male	15.5	15.9	15.9	16.1	16.4	16.9
Female	20.2	20.5	20.5	19.9	18.4	18.7
No. of employees in managerial positions <sup>2</sup>						
Total	336	339	345	388	422	436
Female	15 (4.5%)	17 (5.0%)	19 (5.5%)	24 (6.1%)	29 (6.9%)	34 (7.8%)
Ratio of women/foreign nationals in new hires						
Total	12	20	25	26	26	25
Females, foreign nationals	3	10	7	12	11	11
Average overtime worked	27 hours and 54 minutes	25 hours and 3 minutes	24 hours and 15 minutes	23 hours and 7 minutes	23 hours and 52 minutes	27 hours and 35 minutes
Ratio of annual paid leave taken	53.70%	67.00%	67.00%	71.80%	72.00%	60.00%
No. of male employees taking time off for childcare (including childcare leave)	10	7	30	35	24	23
Ratio of male employees taking time off for childcare (including childcare leave) <sup>3</sup>	24.30%	20.60%	71.30%	77.50%	55.80%	79.30%
No. of female employees returning to work after maternity leave	100%	100%	100%	100%	100%	100%
Users of reemployment system	Prior to enactment	1	—	1	—	_

Note 1. As a general rule, "employees" refers to number of persons working at JPX Group. This excludes persons such as those temporarily assigned by JPX to outside entities and those dispatched to JPX from temporary staffing agencies. It does include, however, persons temporarily assigned by outside entities to JPX and persons on maternity/ childcare leave.

2. Figures for the ratio of women in managerial positions are as of April 1 the next fiscal year.

3. Calculated by dividing the number of male employees who took time off for childcare by the number of male employees who had a spouse give birth multiplied by 100.

### **Environment, Communities, Society**

#### Efforts to Address Environmental Issues

JPX has identified the promotion of sustainability as one of the significant risks and put in place a clear action plan to address environmental issues, including climate change. We are continuously working to reduce our environmental footprint and are committed to creating sustainable capital markets.

In addition, we are engaging in a wide range of activities including efforts to raise employees' awareness toward the environment through forest preservation and community cleanup programs. For information on JPX's efforts to address environmental issues, please refer to Chapter 1:Sustainability of JPX(age.16).

#### Together with Regional Communities

Every year, JPX participates in "Chuo City Marugoto Museum" (literally, all of Chuo City is a museum) to make the area that is home to JPX a living museum. For the event, JPX provides original merchandise bearing the JPX logo as prizes in lucky draws.

JPX's other contributions to local communities include participating in cleanup programs in Tokyo's Kabutocho district (not implemented in FY2020 to prevent the spread of Covid-19). In April and December of 2020, Osaka Exchange was illuminated in blue as a token of gratitude to the medical professionals working on the front lines in the midst of the growing impact of the pandemic.



Osaka Exchange illuminated in blue

Corporate Governance Directors

Special Feature: Striving to Enhance Market Resilience and Further Develop JPX –Message from the Investigation Committee of Independent Directors in Relation to the System Failure Risk Management | Internal Control Systems and Compliance |

### **Corporate Governance**

JPX is committed to developing its corporate governance system appropriately to fulfill its social mission as the core infrastructure of the Japanese market.

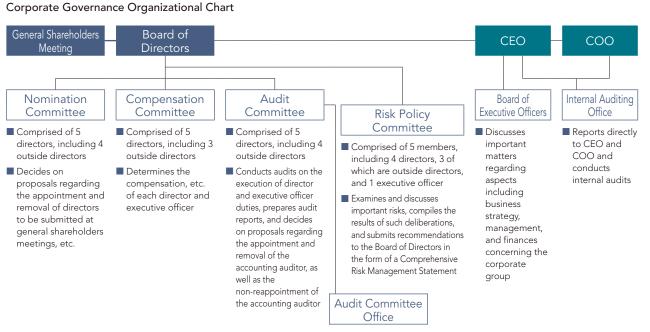
#### **Fundamental Views**

In order to implement management in line with its corporate philosophy (page 2), JPX is aware of the importance of having its stakeholders understand its corporate philosophy and corporate activities. Therefore, JPX has established fundamental views on corporate governance from the following four perspectives. Based on these fundamental views, JPX is committed to developing its corporate governance system appropriately based on each principle in Japan's Corporate Governance Code.

Corporate Philosophy and Social Mission	JPX Group operates markets which are public assets and its social mission is to pursue sustainable development of its markets.	Market Operations	JPX Group operates markets with the view that garnering support for and fostering confidence in the markets it establishes are in the common interest of all market users including investors, and that maintaining and enhancing such support and confidence will build the foundations for sustainable development of its markets.
Enhanced Corporate Value	In pursuing sustainable development of its markets, JPX must continue to accommodate the diverse needs of shareholders and other stakeholders, and through these JPX will enhance its corporate value over the medium to long term.	Effective Corporate Governance	JPX strives to constantly improve its corporate governance system to facilitate more effective and properly functioning systems, so as to support the sustainable development of its markets.

### Corporate Governance System

JPX clearly segregates the management oversight and supervision functions with the business execution functions, and adopts the structure of a Company with Three Committees to strengthen oversight and supervision functions and raise the transparency of management.



Comprised of dedicated staff to support members of the Audit Committee and performs work related to the committee

Corporate Governance Directors

Special Feature: Striving to Enhance Market Resilience and Further Develop JPX–Message from the Investigation Committee of Independent Directors in Relation to the System Failure Risk Management | Internal Control Systems and Compliance |

#### Composition of the Board of Directors

The JPX Board of Directors is comprised of 14 members, including two women. To strengthen the board's functions, namely increasing the transparency and accountability of management and supervising the appropriateness of business execution, the composition of the board includes nine independent directors, constituting a board majority, and an independent director who is not involved in business execution as Chairperson.

The breakdown of the nine independent directors is as follows: three top executives, one legal professional, one certified public accountant, and four academics or former government officials. Each of them has considerable experience and insight in his/her respective field and contributes to a structure that allows for multi-faceted external perspectives to be readily incorporated into the management of JPX.

#### Nomination, Compensation, and Audit Committees

As required by law, JPX has a Nomination Committee and a Compensation Committee for the purpose of ensuring transparency and objectivity in the appointment/removal and compensation of directors and executive officers. Outside directors are in the majority for both of these committees. The appointment and removal of directors and executive officers are thoroughly deliberated and determined by the Nomination Committee and put forth for approval at general shareholders meetings, and the compensation of directors and executive officers is determined by the Compensation Committee.

JPX also has an Audit Committee, as required by law, to perform the audit function. This committee is made up of five directors (including one full-time Audit Committee member), of which four, including a legal professional and a certified public accountant, are outside directors. JPX also has an Audit Committee Office to assist the committee members in the performance of their duties.

Name	Position and				pertise of Director		Board Committees		S			
Name	Responsibilities	Corporate management	Financial audit	Law	Research/ Government Agencies	Technology		Nomination	Compensation	Audit	Independent directors	Risk policy
Tsuda Hiroki	Independent Director, Chairperson of the Board of Directors						100% 10/10 Times					
Kiyota Akira	Director and Representative Executive Officer, Group CEO Director, Tokyo Stock Exchange, Inc. (Part-time)	•					100% 10/10 Times	100% 10/10 Times	100% 5/5 Times			
Yamaji Hiromi	Director and Representative Executive Officer, Group COO President & CEO, Tokyo Stock Exchange, Inc.	•					100% 10/10 Times		•*			
lwanaga Moriyuki	Director and Executive Officer President & CEO, Osaka Exchange, Inc. Representative Director & Chair, Chairperson of the Board, Tokyo Commodity Exchange, Inc.	•					Appointed from June 2021					
Shizuka Masaki	Director and Executive Officer President & CEO, Japan Securities Clearing Corporation	•					100% 9/9 Times					
Christina Ahmadjian	Independent Director				•		100% 10/10 Times		100% 5/5 Times	100% 10/10 Times		
Endo Nobuhiro	Independent Director						90% 9/10 Times	80% 8/10 Times				
Ogita Hitoshi	Independent Director	•					100% 10/10 Times	0 100% 10/10 Times			O	
Kohda Main	Independent Director				•		100% 10/10 Times			100% 10/10 Times		
Kobayashi Eizo	Independent Director						100% 10/10 Times	100% 10/10 Times	00% 5/5 Times			
Takeno Yasuzo	Independent Director						Appointed from June 2021					
Minoguchi Makoto	Director						100% 10/10 Times			100% 10/10 Times		
Mori Kimitaka	Independent Director						100% 10/10 Times		100% 5/5 Times	0** 100% 10/10 Times		
Yoneda Tsuyoshi	Independent Director				•		100% 10/10 Times			0*** 100% 10/10 Times		0***

25

#### Board of Directors

Time Board of Directors

Note: "©" indicates the chairperson of the committee. Figures represent actual performance in FY2020. \* Appointed from June 2021

\*\* Chairperson of the Audit Committee from June 2021 \*\*\* Chairperson of the Risk Policy Committee from June 2021 (retired as a Member of the Audit Committee)

#### Independent Directors Committee

JPX has an Independent Directors Committee as a corporate organ composed exclusively of part-time independent directors to allow them to exchange

Independent Directors Committee

information and form consensus among themselves. The committee helps independent directors to better perform management oversight and facilitates active discussion at Board of Directors meetings.

Objectives	For part-time independent directors to exchange information and form consensus The chairperson of the board, the Group CEO, and other members of management may participate upon the request of the committee.
Frequency of meetings	In principle, at least twice a year The committee chairperson convenes meetings as needed.
Committee Chairperson	The Committee Chairperson convenes meetings and presides over them. When the committee deems it necessary for ensuring smooth communication, the committee chairperson may report the details of the discussions at the committee meetings to the chairperson of the board, the Group CEO, and other members of management.

#### **Risk Policy Committee**

Board Effectiveness Evaluation Cycle

JPX has a Risk Policy Committee with the aim of further improving its corporate governance by bringing an outside perspective to risk management. The committee consists mainly of outside directors. For further information on JPX's risk management systems, including information on the details of activities of the Risk Policy Committee, please refer to Chapter 5: Foundations for Sustainability – Risk Management – Risk Management Systems on page 64.

# Evaluating the Effectiveness of the Board of Directors

At JPX, the Board of Directors analyzes and assesses its own effectiveness based on interviews with and surveys completed by all board members.

The Independent Directors Committee is tasked to conduct the evaluation to increase the objectivity and transparency of the evaluation process.

For information on the evaluation process, an overview of evaluation results and other related matters, please refer to JPX's Corporate Governance Report.

Web

Corporate Governance Report

, https://www.jpx.co.jp/english/corporate/governance/policy/



Corporate Governance | Directors |

Special Feature: Striving to Enhance Market Resilience and Further Develop JPX–Message from the Investigation Committee of Independent Directors in Relation to the System Failure

#### Training for Outside Directors

Each of the JPX outside directors has sufficient knowledge in regard to management and corporate governance thanks to their expert knowledge and experience. With the goal of helping these outside directors deepen their understanding of JPX Group's business, the company runs observation sessions at company offices and other training based on the rulebook, etc., holds lunchtime discussion workshops where they can keep up to date on knowledge and information regarding the exchange business, and conducts training courses aimed at providing an opportunity to share opinions with external experts.

# Director and Executive Officer Remuneration and Factors for Determining Remuneration

Remuneration is comprised of (1) basic salary, (2) bonuses, and (3) JPX stock. Note that remuneration awarded to directors who do not concurrently serve as executive officers is limited to (1) basic salary.

The policies, etc. regarding decisions on each type of compensation are as follows:

#### (1) Basic salary

Basic salary is determined in accordance with each executive's position and duties as consideration for their day-to-day execution of duties and participation in management, and with reference to the level of executive remuneration at other companies, based on research by external expert organizations and other sources.

#### (2) Yearly incentive (bonus)

The yearly incentive (bonus) is awarded to executive officers in proportion to net income (for the purposes of this section, "net income" refers to net income attributable to owners of the parent company as announced in the consolidated statement of income). Net income is used as the metric as it is the source of investment aimed at increasing corporate value as well as the capital used in the payment of dividends to shareholders. It is also because it is appropriate to base a yearly incentive (bonus) awarded every fiscal year on the net income reported in that fiscal year. Also, to evaluate the performance of each executive officer in each fiscal year, a bonus is awarded based on evaluation of that officer's individual performance.

The yearly incentive (bonus) will not be awarded if net income is less than JPY 10 billion for a fiscal year.

#### (3) Medium- to long-term incentive (stock remuneration)

The medium- to long-term incentive (stock remuneration) is paid to executive officers with the aim of aligning the interests of executives closer to those of shareholders, providing motivation for corporate value enhancement over the medium to long term, and strengthening the link between performance and compensation. JPX stock remuneration utilizes a share delivery trust framework and is comprised of a fixed amount and a performance-linked amount.

For the fixed amount, executives are issued points every fiscal year in accordance with their position, etc., and are awarded stocks corresponding to these points three years later.

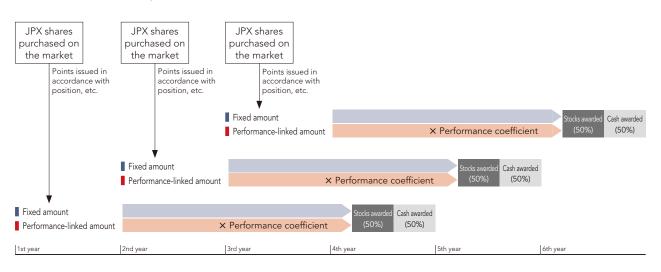
For the performance-linked amount, all executives are given performance-linked base points each fiscal year.

Three years later, stocks are awarded corresponding to the final tally of performance-linked points, which is calculated by multiplying the performance-linked base points with a coefficient based on the degree of achievement of certain performance conditions. The above-mentioned co-efficient is set within a 0-150% range, based on the following conditions: (i) JPX Group's consolidated ROE exactly three years from the issuance date of the performance-linked base points and (ii) a comparative assessment of Total Shareholder Return (TSR) and the performance of the JPX-Nikkei Index 400 (total return index) for the three-year period from the end of the fiscal year before the performance-linked base points were issued. Consolidated ROE is used as an indicator from the perspective of improving capital efficiency, while TSR is used from the perspective of improving value for shareholders.

#### Conditions tied to the performance-linked portion of the medium- to long-term incentive (stock remuneration)

		Consolidated ROE				
		Less than 10%	10% or more, less than 14%	14% or more		
Comparison of Total	Outperformed	Performance coefficient	Performance coefficient	Performance coefficient		
Shareholder Return and the		50%	100%	150%		
performance of the JPX-Nikkei	Underperformed	Performance coefficient	Performance coefficient	Performance coefficient		
Index 400 (total return index)		0%	50%	100%		

#### The Stock Remuneration System



The medium- to long-term incentive (cash remuneration) is awarded to executive officers in line with the performance of consolidated ROE as set out in the 3rd Medium-Term Management Plan. This incentive is awarded on the condition that consolidated ROE is 10% or above for every fiscal year covered within the Medium-Term Management Plan (three years), and will be maximized if either consolidated ROE for the last fiscal year of the Plan or the average consolidated ROE over the three years of the Plan is 15% or higher. The amount of incentive for each executive officer will be decided based on the consolidated ROE figure and their respective positions.

JPX is a Company with Three Committees. It has established a statutory Compensation Committee for the purpose of ensuring transparency and objectivity concerning compensation paid to directors and executive officers. The Compensation Committee is made up of a majority of independent directors and chaired by an independent director. Based on laws and regulations, the Compensation Committee has the authority to establish the policy concerning decisions on the details of compensation for each director and executive officer and the authority to decide the details of compensation for each director and executive officer based on said policy. For this fiscal year, the Compensation Committee decided the details of the compensation for each director and executive officer after appropriate discussion based on the above policy determined by the Compensation Committee. JPX considers the compensation to be in line with the above policy.

#### Total Compensation Paid to Directors and Executive Officers

		Tot				
Director/Executive	Total Compensation (JPY million)	Fixed Compensation	Performance-linked Compensation			Number of Eligible Directors
Classification		Basic Salary	Annual Incentive (Bonus)	Medium- to Long-term Incentive (Stock Compensation)		and Executive Officers
				(Fixed Portion)	(Performance-linked Portion)	
Directors (Excluding outside directors)	28	28	_	_	_	1
Executive officers	460	188	162	85	25	6
Outside directors	172	172	_		_	9

Notes 1. JPX does not pay director compensation to directors who concurrently serve as executive officers.

2. Bonuses are paid at an amount, etc. that is in correlation with JPX Group's net income for the year under review, and are not paid if net income fails to reach JPY 10.0 billion. Net income for the year under review was JPY 51,389 million.

3. Concerning the indicators used for the performance-linked portion of stock compensation, there is a two-tier target for consolidated ROE of 10% or more and 14% or more, and the performance-linked coefficient changes depending on the level of achievement. Concerning Total Shareholder Return (TSR), the target is for TSR to outperform the growth rate of the JPX-Nikkei Index 400 (total return index). The amount of the aforementioned stock compensation is the amount among the stock compensation for FY2018 to FY2020 that is recorded as an expense in this fiscal year. Of that, the indicators for stock compensation granted in FY2018 were as follows: consolidated ROE was 16.6%, and the three-year TSR of JPX's shares outperformed the growth rate of the JPX-Nikkei Index 400 (total return index) over the same period. Accordingly, the highest possible performance conditions were achieved.

4. The performance-linked portion comprising the bonus and the stock compensation fall under "performance-linked compensation, etc." provided for by the Regulation for Enforcement of the Companies Act, and stock compensation falls under "non-monetary compensation, etc." provided for by the same Act.

Corporate Governance | Directors |

Special Feature: Striving to Enhance Market Resilience and Further Develop JPX–Message from the Investigation Committee of Independent Directors in Relation to the System Failure Risk Management | Internal Control Systems and Compliance |

### Directors



Tsuda Hiroki Independent Director Chairperson of the Board of Directors

- Apr. 1972 Joined Ministry of Finance
- Aug. 2002 Director-General, Tokyo Customs
- Jan. 2003 Deputy Vice Minister for Policy Planning and Co-ordination
- 2004 Deputy Vice Minister Jul.
- Jul. 2006 Director-General of the Budget Bureau
- 2007 Administrative Vice Minister of Finance Jul.
- 2008 Retired Jul.
- Sep. 2008 Professor, Graduate School of Public Management, Waseda University
- Jun. 2015 Outside Director and Chairperson of the Board of Directors of the Company (current position)

No. of Company shares held: 2,500 shares



Kiyota Akira Director and Representative Executive Officer, Group CEO

- Apr. 1969 Joined Daiwa Securities Co. Ltd. (currently Daiwa Securities Group Inc.)
- Jun. 1994 Director, Head of Tobu Area Sales Division
- May 1996 Director, Head of Bond & Finance Division Jun. 1997 Managing Director, Head of Bond & Finance Division
- Oct. 1997 Deputy President
- Apr. 1999 President, Daiwa Securities SB Capital Markets Co. Ltd. (currently Daiwa Securities Co. Ltd.)
- Jun. 2004 Deputy Chairman of the Board and Corporate Executive Officer, Daiwa Securities Group Inc. Chairman of the Institute, Daiwa Institute of Research Ltd.
- Jun. 2008 Chairman of the Board and Corporate Executive Officer, Daiwa Securities Group Inc.
- Apr. 2011 Director and Honorary Chairman
- Jun. 2011 Honorary Chairman
- Jun. 2013 Director of the Company (current position) President & CEO, Tokyo Stock Exchange, Inc.
- Jun. 2015 Representative Executive Officer, Group CEO of the Company (current position) Director, Tokyo Stock Exchange, Inc.
- Dec. 2020 President & CEO, Tokyo Stock Exchange, Inc.
- Apr. 2021 Director (current position)
- Significant Concurrent Position:

Director, Tokyo Stock Exchange, Inc.

No. of Company shares held: 111,686 shares



Yamaji Hiromi Director and Representative Executive Officer, Group COO



- Apr. 1977 Joined The Nomura Securities Co., Ltd. (currently Nomura Holdings, Inc.)
- Jun. 1997 General Manager, Personnel Department Jun. 1998 Member of the Board in charge of Investment Banking Products Division
- Jun. 2000 Managing Director, Head of Global Investment Banking Division
- Apr. 2002 President & CEO, Nomura Europe Holdings plc (London) and Chairman, Nomura Holding America Inc. (New York)
- Apr. 2007 Executive Vice President, Global Investment Banking, in charge of Corporate Finance Division, Nomura Securities Co., Ltd.
- Jun. 2013 Director of the Company (current position) President & CEO, Osaka Securities Exchange Co., Ltd. (currently Osaka Exchange, Inc.)

Nov. 2015 Executive Officer of the Company

- Oct. 2019 Representative Executive Officer, Tokyo Commodity Exchange, Inc.
- Dec. 2019 Representative Director & Chair, Chairperson of the Board
- Jun. 2020 Representative Executive Officer, Group Co-COO of the Company
- Dec. 2020 Representative Executive Officer, Group COO (current position)
- Apr. 2021 President & CEO, Tokyo Stock Exchange, Inc. (current position)

Significant Concurrent Position:

President & CEO, Tokyo Stock Exchange, Inc.

No. of Company shares held: 29,394 shares



Iwanaga Moriyuki Director and Executive Officer

Shizuka Masaki Director and Executive Officer

Apr.	1984	Joined Tokyo Stock Exchange	Apr.	2018	Director and Executive Vice President
Jun.	2007	Director, Corporate Strategy Department, Tokyo Stock Exchange, Inc.	Apr.	2019	Executive Vice President, Japan Securities Clearing Corporation
Aug.	2007	Director, Corporate Strategy Department,	Jun.	2019	Director
		Tokyo Stock Exchange Group, Inc.	Apr.	2020	Senior Executive Vice President
Jun.	2008	Executive Officer & Director, Corporate Strategy Department	Apr.	2021	Executive Officer of the Company (current position)
		Executive Officer & Director, Corporate Marketing Management Department, Tokyo Stock Exchange, Inc. Director, Japan Securities Clearing Corporation			President & CEO, Osaka Exchange, Inc. (current position) Representative Director & Chair, Chairperson of the Board, Tokyo Commodity
Jun.	2012	Executive Officer, Tokyo Stock Exchange			Exchange, Inc. (current position)
	0045	Group, Inc.			Director of the Company (current position)
		Executive Officer of the Company	9		t Concurrent Positions:
Jun.	2013	Senior Executive Officer Senior Executive Officer, Tokyo Stock Exchange, Inc.	President & CEO, Osaka Exchange, Inc. Representative Director & Chair, Chairperso Board, Tokyo Commodity Exchange, Inc.		ative Director & Chair, Chairperson of the
Apr.	2017	Director and Senior Executive Officer, Tokyo Stock Exchange, Inc.	No.	of Co	mpany shares held: 33,110 shares
Apr.	1982	Joined Tokyo Stock Exchange	Apr.	2020	Executive Officer of the Company
Jun.	2004	Director, Treasury Department, Tokyo Stock Exchange, Inc.			(current position) President & CEO,
Jun.	2005	Director, Corporate Strategy Department			Japan Securities Clearing Corporation (current position)
Jun.	2007	Executive Officer	Jun.	2020	Director of the Company (current position)
Aug.	2007	Executive Officer, Tokyo Stock Exchange Group, Inc.	Sign	ificant	t Concurrent Position: & CEO, Japan Securities Clearing Corporation
Jun.	2008	Executive Officer, Tokyo Stock Exchange, Inc.			mpany shares held: 31,940 shares
Jun.	2011	Senior Executive Officer	INO.		inparty shales neid. 51,740 shales
Jun.	2013	Managing Director			
Jun.	2014	Director & Senior Executive Officer			
Apr.	2016	Director & Executive Vice President			
Apr.	2017	Senior Executive Vice President, Japan Securities Clearing Corporation			
Jun.	2017	Director & Senior Executive Vice President			
Jan.	1995	Assistant Professor, Columbia Business School (Graduate School of Business,	Jun.	2018	: Outside Director, Sumitomo Electric Industries, Ltd. (current position)
		Columbia University)	Mar	2019	Outside Director Asabi Group Holdings Ltd

- Columbia University) Oct. 2001 Associate Professor, Graduate School of International Corporate Strategy, Hitotsubashi University Jan. 2004 Professor, Graduate School of International Corporate Strategy
  - Apr. 2010 Dean, Graduate School of International Corporate Strategy
  - Apr. 2012 Professor, Graduate School of Commerce and Management
  - Jun. 2014 Outside Director of the Company (current position)
  - Apr. 2018 Professor, Graduate School of Business Administration, Hitotsubashi University (current position)

- Mar. 2019 Outside Director, Asahi Group Holdings, Ltd. (current position)
- Jun. 2021 Outside Director, NEC Corporation (current position)

Significant Concurrent Positions:

Professor, Graduate School of Business Administration, Hitotsubashi University Outside Director, Sumitomo Electric Industries, Ltd. Outside Director, Asahi Group Holdings, Ltd. Outside Director, NEC Corporation

No. of Company shares held: 2,500 shares



Christina Ahmadjian

Independent Director

Endo Nobuhiro Independent Director



- Apr. 1981 Joined NEC Corporation
- Apr. 2006 Associate Senior Vice President, Executive General Manager of Mobile Network Operations Unit
- Apr. 2009 Executive Vice President
- Jun. 2009 Executive Vice President and Member of the Board Apr. 2010 President (Representative Director)
- Apr. 2016 Chairman of the Board (Representative Director)
- Jun. 2018 Outside Director of the Company (current position)
- Jun. 2019 Member, Board of Directors (Outside), Sumitomo Dainippon Pharma Co., Ltd. (current position) Chairman of the Board, NEC Corporation (non-executive) (current position) Outside Director, Tokio Marine Holdings, Inc. (current position)

#### Significant Concurrent Positions:

Chairman of the Board, NEC Corporation (non-executive) Member, Board of Directors (Outside), Sumitomo Dainippon Pharma Co., Ltd. Outside Director, Tokio Marine Holdings, Inc.

No. of Company shares held: 4,000 shares

Corporate Governance Directors

Special Feature: Striving to Enhance Market Resilience and Further Develop JPX–Message from the Investigation Committee of Independent Directors in Relation to the System Failure Risk Management | Internal Control Systems and Compliance |



Ogita Hitoshi Independent Director

Kohda Main

Independent Director

Chairperson of the Nomination Committee	Chairperson of the Independent Directors Committee
	Committee

- Apr. 1965 Joined Asahi Breweries, Ltd. (currently Asahi Group Holdings, Ltd.)
- Mar. 1997 Director, General Manager of Fukuoka Branch
- Mar. 2000 Managing Corporate Officer, Senior General Manager of Kyushu Regional Headquarters
- Mar. 2002 Senior Managing Corporate Officer, Senior General Manager of Kanshin-etsu Regional Headquarters
- Sep 2002 Corporate Officer, Vice President, Asahi Soft Drinks Co., Ltd.
- Mar. 2003 President and Representative Director Mar. 2006 President and Representative Director,
- Asahi Breweries, Ltd.
- Mar. 2010 Chairman of the Board and Representative Director
- Mar. 2014 Senior Adviser, Asahi Group Holdings, Ltd. (current position)
- Sep. 1995 Started independently as novelist, to the present
- Jan. 2003 Member of Fiscal System Council, Ministry of Finance Japan
- Apr. 2004 Visiting professor, Faculty of Economics, Shiga University
- Mar. 2005 Member of the Council for Transport Policy, Ministry of Land, Infrastructure, Transport and Tourism
- Nov. 2006 Member of the Tax Commission, Cabinet Office, Government of Japan
- Jun. 2010 Member of the Board of Governors, Japan Broadcasting Corporation
- Jun. 2012 Outside Director, Japan Tobacco Inc. (current position)

Jun. 2016 Outside Director of the Company (current position)

Significant Concurrent Position: Senior Adviser, Asahi Group Holdings, Ltd. No. of Company shares held: 5,500 shares

- Jun. 2016 Outside Director of the Company (current position)
- Jun. 2018 Outside Director, MITSUBISHI MOTORS CORPORATION (current position)
- Significant Concurrent Positions:

Novelist

Outside Director, Japan Tobacco Inc. Outside Director, MITSUBISHI MOTORS CORPORATION

No. of Company shares held: 3,700 shares

Kobayashi Eizo Independent Director



Takeno Yasuzo Independent Director



- Apr. 1972 Joined C. Itoh & Co., Ltd. (currently ITOCHU Corporation)
- Jun. 2000 Executive Officer
- Apr. 2002 Managing Executive Officer
- Jun. 2003 Representative Director, Managing Director
- Apr. 2004 Representative Director,
- Senior Managing Director Jun. 2004 President & Chief Executive Officer
- Apr. 2010 Representative Director, Chairman
- Jun. 2011 Director, Chairman
- Jun. 2013 Outside Director, OMRON Corporation (current position)
- Jun. 2015 External Director, Japan Airlines Co., Ltd. (current position)
- Jun. 2016 Outside Director of the Company (current position) Chairman, ITOCHU Corporation
- Apr. 1987 Registered as attorney-at-law in Japan Joined Hamada & Matsumoto (currently Mori Hamada & Matsumoto)
- Mar. 1989 London Office
- Jan. 1998 Partner
- Dec. 2002 Partner, Mori Hamada & Matsumoto (current position)
- Jan. 2007 Member of the Management Committee
- Jun. 2021 Outside Director of the Company (current position)

- Apr. 2018 Senior Representative for Business **Community Relations**
- Apr. 2020 Director Emeritus (current position)

Significant Concurrent Positions: Director Emeritus, ITOCHU Corporation Chairman, ITOCHU Foundation Outside Director, OMRON Corporation External Director, Japan Airlines Co., Ltd. Outside Director, Nippon Venture Capital Co., Ltd. Chairman, National Federation of Corporate Taxpayers Associations Administrative Director, The Public Interest Incorporated Foundation Tohoren Mutual Benefit Association for Specific Retirement Allowance Chairperson, Japan Overseas Educational Services

No. of Company shares held: 6,600 shares

#### Significant Concurrent Positions:

Attorney-at-Law Partner, Mori Hamada & Matsumoto No. of Company shares held: 0 shares



#### Minoguchi Makoto Director

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Mori Kimitaka Independent Director

- Apr. 1984 Joined Tokyo Stock Exchange Jun. 2007 Director, General Administration
- Department, Tokyo Stock Exchange, Inc.
- Aug. 2007 Director, General Administration Department, Tokyo Stock Exchange Group, Inc.
- Jun. 2009 Director, Corporate Strategy Department
- Oct. 2010 Director, Listing Examination Department, Tokyo Stock Exchange Regulation (currently Japan Exchange Regulation)

Apr. 1980 Joined Shinwa Accountants

- Jun. 2011 Standing Governor
- Jun. 2015 Managing Director, Japan Securities Clearing Corporation

(currently KPMG AZSA LLC)

- Apr. 2017 Managing Director and Executive Officer
- Jun. 2017 Director of the Company (current position) Statutory Auditor, Tokyo Stock Exchange, Inc.

No. of Company shares held: 8,200 shares

Jun. 2017 Outside Corporate Auditor, MITSUI & CO., LTD.

(current position)

f the Audit ttee	Jun. 2004 Jun. 2004 Jul. 2011 Jun. 2013 Jul. 2013	<ul> <li>Papersentative Partner, Asahi &amp; Co.</li> <li>(currently KPMG AZSA LLC)</li> <li>Director of financial services, KPMG AZSA &amp; Co.</li> <li>(currently KPMG AZSA LLC)</li> <li>Board Member, KPMG AZSA LLC)</li> <li>Board Member, KPMG AZSA &amp; Co.</li> <li>Chairman, KPMG FS Japan</li> <li>Retired from KPMG AZSA LLC</li> <li>Established Mori Certified Public Accountant Office</li> <li>Chairman and President, The Japanese Institute of Certified Public Accountants</li> <li>Advisor, The Japanese Institute of Certified Public Accountants (current position)</li> </ul>	Outside Corporate Auditor, East Japan Railway Company (current position) Jul. 2017 Outside Director, SUMITOMO LIFE INSURANCE COMPANY (current position) Significant Concurrent Positions: Certified Public Accountant Advisor, The Japanese Institute of Certified Public Accountants Outside Corporate Auditor, MITSUI & CO., LTD. Outside Corporate Auditor, East Japan Railway Company Outside Director, SUMITOMO LIFE INSURANCE COMPANY No. of Company shares held: 5 000 shares
		Outside Director of the Company (current position)	No. of Company shares held: 5,000 shares
	Apr 1976	6 Joined National Police Agency	Significant Concurrent Positions:
		I General Manager, Criminal Affairs Department, Metropolitan Police	External Audit & Supervisory Board Member, Marubeni Corporation



Yoneda Tsuyoshi Independent Director

- partment, Metropolitan Police Department
- Aug. 2003 General Manager, Kyoto Prefectural Police Headquarters
- Sep. 2007 Commissioner, Criminal Affairs Bureau
- Jun. 2009 Commissioner-General's Secretariat
- Oct. 2011 Deputy Director-General
- Jan. 2013 Commissioner General
- Jan. 2015 Retired
- Jun. 2015 Outside Director of the Company (current position)
- Jun. 2017 External Audit & Supervisory Board Member, Marubeni Corporation (current position)
- Oct. 2020 Chief Director, Council for Public Policy (current position)

ration Chief Director, Council for Public Policy No. of Company shares held: 5,500 shares

Corporate Governance Directors

Special Feature: Striving to Enhance Market Resilience and Further Develop JPX–Message from the Investigation Committee of Independent Directors in Relation to the System Failure Risk Management | Internal Control Systems and Compliance |

#### Japan Exchange Group, Inc. Executive Officers

Kiyota Akira Representative Executive Officer, Group CEO

Yamaji Hiromi Representative Executive Officer, Group COO

Yamaji Hiromi

Konuma Yasuyuki

Director & Executive Vice

(Listing, New Listings, Equities, Equities Business Development

and Financial Literacy Support)

President & CEO

President

Tokyo Stock Exchange, Inc.

#### Isaka Yoshihiro Senior Executive Officer (Global Strategy)

Yokoyama Ryusuke

Director & Senior Executive Officer

IT Development (Equities

Trading, Information and

Clearing) and IT Services)

Matsuzaki Hiroyuki

Standing Statutory Auditor

Standing Statutory Auditor

Ichimoto Hiroyasu

Director & Senior Executive

(Comprehensive Exchange

Development, General Administration and Business

(IT Administration,

Kiyota Akira

Director (part-time)

(IT Planning)

Yokoyama Ryusuke Hasegawa Isao Senior Executive Officer & CIO Senior Executive Officer (General Administration and Human Resources)

> Futagi Satoshi Senior Executive Officer (Corporate Strategy and Sustainability)

Kama Kazuaki<sup>1</sup>

Yamada Haruhiko<sup>1</sup>

Statutory Auditor

Statutory Auditor

Isaka Yoshihiro

(Information Services)

Senior Executive Officer

Iwanaga Moriyuki Executive Officer (Management of Osaka Exchange, Inc.)

Ishizaki Takashi Executive Officer (Management of Tokyo Commodity Exchange, Inc.)

Hasegawa Isao Senior Executive Officer (General Administration)

Kamiki Tatsuya Executive Officer (IT Services and Tokyo Site Contingency)

Ao Katsumi Executive Officer (Listing)

Hasegawa Isao Senior Executive Officer (General Administration)

Tagaya Akira Executive Officer (Market Planning and Comprehensive Exchange Development)

(excluding Market Operations) and Self-Regulation)

Shizuka Masaki Executive Officer (Management of Japan Securities Clearing Corporation)

Tabata Atsushi Executive Officer & CFO (Treasury, Corporate Communications and Investor Relations)

Kawai Hiroki Executive Officer (Equities, Equities Business Development and Financial Literacy Support)

Takura Satoshi Executive Officer (IT Development (Information))

Hinoide Mikio Executive Officer (Tokyo Site Contingency)

Takura Satoshi Executive Officer (IT Development (Derivatives))

Hinoide Mikio Executive Officer (Market Operations)

Kakizaki Kazuhisa Executive Officer (Derivatives Business Development and Financial Literacy Support)

Hinoide Mikio Executive Officer (Business Operations (Market Operations))

Kikuchi Kiichi Standing Auditor

Matsuzaki Hiroyuki Auditor

#### Osaka Exchange, Inc. Iwanaga Moriyuki Kamiki Tatsuya President & CEO Director & Executive Officer (IT Services) Ichimoto Hirovasu Maruyama Masahiko

Director & Senior Executive Officer (Market Planning, Derivatives

Business Development, Financial Literacy Support, Comprehensive Exchange Development and Osaka Site Contingency)

#### Tokyo Commodity Exchange, Inc.

Iwanaga Moriyuki Representative Director & Chair, Chairperson of the Board

Ishizaki Takashi Representative Director, President

Operations) Ohishi Etsuji Standing Statutory Auditor

Officer

#### Japan Exchange Regulation

Hosomizo Kiyoshi<sup>2</sup> President

Fukuda Kazuo Managing Governor (Trading Participants Examination and Inspection, and Market Surveillance and Compliance)

Managing Governor

(Listing Examination)

Okada Joji<sup>2</sup> Governor

Kawakita Hidetaka<sup>2</sup> Governor

> Suzuki Yoshihiko<sup>1</sup> Standing Statutory Auditor

Statutory Auditor

Statutory Auditor

Hosomura Takehiro Executive Officer (Clearing Planning, OTC Derivatives Clearing Services and JGB Clearing Services)

Hinoide Mikio Executive Officer (Tokyo Site Contingency)

Note 1. Statutory Auditor (Outside) 2. Governor (Outside) 3. Director (Outside)

Shizuka Masaki

Suzuki Yasushi

General Administration)

President & CEO

Director & Senior Executive Officer (Listed Products Clearing Services, Comprehensive Exchange Development and

Japan Securities Clearing Corporation

Asai Kunihiro<sup>3</sup> Director (part-time)

Izawa Nobuhiko<sup>3</sup> Director (part-time)

Ohashi Kazuhiko<sup>3</sup> Director (part-time)

Sakata Hideki<sup>3</sup> Director (part-time)

Futagi Satoshi

Director (part-time)

Yoshihara Masatoshi<sup>3</sup> Director (part-time)

Morishita Kunihiko<sup>1</sup>

Yanaga Masao<sup>1</sup>

Takada Atsushi<sup>1</sup> Statutory Auditor

Matsui Syunsuke<sup>1</sup> Statutory Auditor Yokoyama Ryusuke

Senior Executive Officer (IT Administration IT Development (Derivatives) and IT Services)

Isaka Yoshihiro Senior Executive Officer (Information Services)

Peter L. Jaeger Statutory Auditor

Kuroda Katsushi<sup>1</sup> Statutory Auditor

Yamada Kazuhiko<sup>1</sup> Statutory Auditor

> **Onosato Mitsuhiro** Executive Officer (Business Operations

Kanda Hideki<sup>2</sup> Governor

> Fujinawa Kenichi<sup>2</sup> Governor

Hirano Takeshi

Kagiwada Hiroshi

(Listed Company Compliance and General Administration)

Standing Governor

Risk Management | Internal Control Systems and Compliance |

#### Special Feature

# Striving to Enhance Market Resilience and Further Develop JPX

# Message from the Investigation Committee of Independent Directors in Relation to the System Failure

JPX established an investigation committee comprised of independent directors to investigate the system failure that occurred in October 2020. Serving as chairman of the investigation committee, Kubori Hideaki investigated the causes of the failure and made evaluations and recommendations on preventive measures from an independent, neutral, and impartial standpoint. Below is a message from Mr. Kubori about what he believes is necessary and what he expects for JPX's further development and enhancement of corporate value.



# JPX Governance and Expectations for its Development

Kubori Hideaki Former Independent Director, Attorney-at-law

As a comprehensive exchange group that deals in cash equities, financial derivatives, and commodity derivatives, JPX aims to build highly reliable social infrastructure through the ongoing stable operation of fair and transparent markets. On the other hand, JPX is a listed company on the market of Tokyo Stock Exchange, Inc., so its corporate value is assessed based on its share price, meaning JPX is required to be both profitable and serve the public interest.

Due to a system failure that occurred on October 1, 2020 in the arrowhead cash equity trading system, auction trading was suspended for the entire day, an event that had a tremendous impact on investors. The Risk Policy Committee—which JPX established as a voluntary committee separate from the three statutory committees—convened the following day and proposed that an Investigation Committee of Independent Directors in Relation to the System Failure be established. The JPX Board of Directors immediately approved this proposal, launching an investigation committee composed of four JPX independent directors: three members of the Risk Policy Committee (a former National Police Agency commissioner general, a novelist, and myself as chair) and Endo Nobuhiro, who as Chairman of the Board of NEC Corporation is well versed in systems.

This investigation committee was made possible because nine out of JPX's 14 directors are independent directors who have expertise across a wide range of fields. Consequently, we were able to submit a report the following month that included details of the incident, the actual causes, preventive measures, and future recommendations without having to create a third-party committee. This report was completed far more quickly and at a much lower cost compared to a typical third-party committee. In addition, the following recommendations for the future were added: (1) given that system failures are inevitable, measures to increase resilience should be formulated, and comprehensive testing and training should be conducted as a wide range of parties such as trading participants are involved; and (2) as financial instruments exchanges are said to be a systems/IT device industry, investment should be allocated toward system design, development, supervision, and research, and fundamental IT system reform including staffing should be considered.

Having decided to step down as a JPX independent director in the next fiscal year, you could say that my wish for JPX to play a leading role in financial instruments systems was my final will and testament in this role.

JPX has taken these recommendations onboard and is implementing concrete measures including the establishment of the Center for Advanced Research and Development, DigiMa Lab. I look forward to seeing how JPX progresses further in the future.

Corporate Governance | Directors |

Special Feature: Striving to Enhance Market Resilience and Further Develop JPX–Message from the Investigation Committee of Independent Directors in Relation to the System Failure

### **Risk Management**

In its approach to risk management, JPX recognizes the importance of maintaining sound and stable business operations to fulfill its public role as a market operator and continue raising corporate value.

#### Risk Management Systems

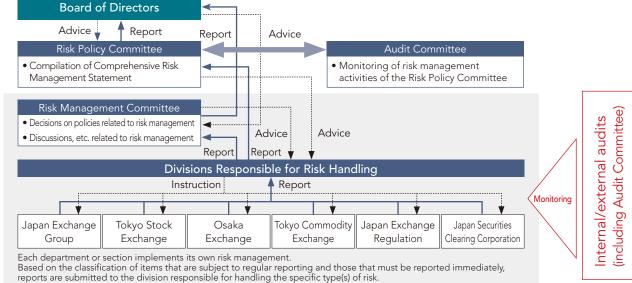
JPX faces numerous risks in the course of its operations, including risks associated with system glitches, legal matters, compensation in the event of clearing participant defaults, and administrative errors. JPX has established a Risk Policy Committee, chaired by an outside director, and a Risk Management Committee, chaired by the Group CEO, to address risk. In line with JPX's Risk Management Policy, these committees are responsible for identifying risks as well as developing and implementing measures to prevent such risks. JPX also has a system in place to ensure a swift and appropriate response when risks do or are likely to materialize.

The Risk Policy Committee consists of at least five members, the majority of whom are outside directors. As a rule, the committee is chaired by an outside director.

The Risk Management Committee is composed of core members and project members who oversee the risks of specific projects. The Group CEO (who serves as chairperson), the executive officer overseeing the General Administration Department, and the director of the department make up the core members, while the chairperson of the committee assigns project members to specific cases as they arise. The Risk Management Policy serves to prevent risks by indicating and classifying the risks JPX faces. Departments or sections are assigned to handle the classified risks, and information on the assessments of operations and issues to be addressed are periodically brought before the Risk Policy Committee and Risk Management Committee.

Each fiscal year, the Risk Policy Committee identifies the significant risks requiring priority action in JPX.

The results of this process are submitted to the Board of Directors as recommendations in the form of a Comprehensive Risk Management Statement. JPX works to reduce the possibility of realization of the risks based on the Comprehensive Risk Management Statement and responds flexibly to risks that materialize. When a major issue occurs, the Risk Management Committee gains an overall grasp of the situation and orchestrates a concerted response by giving directions for dealing with the issues as guickly as possible. The system calls for all necessary information to be reported to management promptly and without fail. Meanwhile, the Risk Policy Committee is making efforts toward the sophistication of JPX's risk management based on an evaluation of the effectiveness of the Board of Directors, etc. These efforts include strengthening functions as needed to increase the effectiveness of various measures when risks arise.



#### Risk Management System

reports are submitted to the division responsible for handling the specific type(s) of risk.

Flow of regular reports and reports submitted when risks occur -----> Flow of instructions and advice on response

#### **Risk Classification**

Types of Risk	Examples
Business environment and business strategy risk	Economic fluctuations, legal and regulatory matters, demographic changes, technological innovation, investor trends, public opinion, and failed business choices
Accidents and disaster risk	Major earthquakes, typhoons, tsunami, epidemics, terrorism, failure/stoppage of social infrastructure, fires, and accidents
System risk	Inadequate hardware capacity and application errors
Legal risk	Violations of laws and regulations in the course of business, business partner's failure to perform on contracts, and the possibilities of having a relationship with anti-social forces
Financial risk	Undermined reliability of financial reporting, lack of funds, and loss or damage to assets, including deposits
Human risk	Personnel shortage, industrial accidents, and occupational hazards
Information security risk	Information leakage, unauthorized access, and computer viruses
Operational risk	Mistakes in operational procedures and misjudgments
Risk of associated companies	Emergence of risk in group companies
Reputational risk	Decline in public reputation due to acts and statements by employees and/or third parties
Credit risk and liquidity risk arising from obligation assumption business	Emergence of losses due to default, etc. by clearing participants
Other risks	Risks other than those mentioned above

#### Significant Risks

Each fiscal year, we identify the significant risks that could affect JPX. We control the possibility of the materialization of these risks by implementing necessary preventive measures. We also implement measures to ensure that we are able to respond flexibly in the event that risks materialize.

 $\mathsf{JPX}$  approaches risk management on two levels.

First, all group companies work to identify risks in the internal environment.

Second, there is wide-ranging discussion involving the management team about potential risk factors in

the external environment, including geopolitical risk. Based on the results of these discussions, we then examine significant risks.

Many risks are detected at the discussion stage. We examine these in detail to identify the risks that require the greatest attention in each fiscal year, on the basis of the potential impact on JPX if the risk materializes and the frequency with which such risks are likely to arise.

We then take preventive measures targeting specific significant risks.

#### Significant Risks

Risk Phenomena	Risk Scenarios				
Risks that could impact JPX business continuity and business operations	<ul> <li>Risk to business continuity resulting from damage to social infrastructure, including power grid failure, such as in the event of a wide-area disaster</li> <li>Risk that could affect market operations, etc. due to cyberattacks on JPX's systems</li> <li>Risk to trading continuity due to pressure on system capacity caused by abnormal market fluctuations in response to sudden short-term exchange rate movements caused by economic or political events in Japan or overseas</li> <li>Risk of an impact on market operations, etc. as a result of workers being infected or being unable to commute to work due to the spread of a novel virus.</li> <li>Risk of difficulties in market operations, etc. due to events such as a failure of our system software</li> <li>Risk of reduced confidence and support for our market infrastructure due to an inadequate response to the promotion of sustainability which includes ESG issues</li> </ul>				
Risks that could affect JPX business performance and financial position	<ul> <li>Risk of a decline in trading due to medium- to long-term market stagnation resulting from changes in political and economic conditions in the U.S., the EU, or other major economies</li> <li>Risk that the financial position of JPX will be impacted by a clearing participant default</li> </ul>				

Corporate Governance | Directors |

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#### Systems Capacity Management

In recent years, with faster systems and the growing prevalence of co-location services, there has been an increase in the number of orders processed by JPX trading systems. In view of these changes, JPX is monitoring market trends and system usage and working to manage overall system capacity across the corporate group by utilizing projections to prepare for and prevent any system capacity issues that may arise.

Capacity management is not conducted by IT departments alone, but also by the Capacity Management Committee chaired by the CIO. The cross-divisional committee is made up of executive officers and departments involved in market operations. Geared toward realizing even better systems, the committee monitors, analyzes, and assesses system operation conditions, works on improvements for current systems, and provides feedback on the design and development of next-generation systems. The committee employs the PDCA cycle in its activities, while reporting to management periodically and on an as-needed basis to make swift and appropriate decisions on priority or emergency issues related to system capacity.

#### **Contingency** Plan

Alongside the need for exchanges to provide opportunities for trading, in order to maintain fair price formation in the market, it is also necessary for securities companies and other market participants who place orders to the exchange market to maintain a certain level of preparedness. JPX formulates contingency plans for disseminating and publishing its basic response policies when it becomes difficult to continue trading, such as when there is a glitch in a JPX or external system, a natural disaster or terrorist act, or when parts of the social infrastructure cease to function. For example, in the case of a natural disaster, we consider the necessity of trading suspension after taking fully into account past market share based on the trading value of trading participants that are unable to participate in trading (generally above 50% of overall trading value), the extent of disasters and the state of system failure (including the number of trading participants, etc. that are unable to participate in trading, their attributes, the status of the entire financial market), and social demands.

#### Actions on Cybersecurity

As JPX holds responsibility for key financial market infrastructure, it views cybersecurity as a significant management risk, and accordingly actively advances cybersecurity measures, as well as implementing a variety of measures to provide safe and secure services to investors and other market participants. As an example, we have built a multi-layered security system that detects and blocks any and all cyberattacks against JPX, including unauthorized access to the website and targeted emails. We have also constructed a 24-hour monitoring and response system, centered mainly around the in-house Computer Security Incident Response Team (CSIRT). This system conducts regular diagnostic checks looking for vulnerabilities in JPX security and works to improve our countermeasures to these threats.

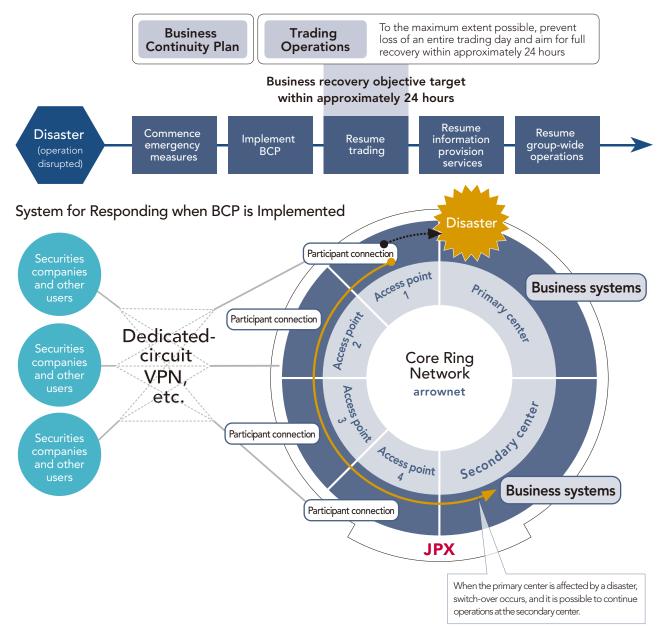
In addition, we are working to strengthen our corporate group's capabilities in cybersecurity through the creation of cybersecurity manuals and procedures, as well as response drills held multiple times a year for a range of scenarios. At the same time, to raise awareness of cybersecurity among employees, we are providing education through regular e-learning courses and training to combat targeted email attacks. We are also committed to working in a timely and appropriate manner with public institutions such as the Financial Services Agency, the National center of Incident readiness and Strategy for Cybersecurity, the Tokyo Metropolitan Police Department's association for responses to cyberterrorism, and the Information-technology Promotion Agency, Japan. At the same time, we have created a system to keep track of and share information on the latest trends in cybersecurity-based threats, which includes sharing in-depth information with the Nippon CSIRT Association and security companies.

Cyberattacks are becoming increasingly sophisticated and precise with each passing year, so we will continue to be vigilant, conducting regular checks of our security measures and revising and reinforcing them whenever necessary.

#### **Business Continuity in Emergencies**

JPX's core responsibility as a market operator within the social infrastructure is to provide reliable markets for market users to trade with confidence. Therefore, even when major risks do materialize, such as in the form of natural disasters or terrorist acts, JPX must be prepared to answer the call of society and continue operations. To be ready for such situations, JPX established its Business Continuity Plan (BCP) to define its response to materialized risks. The basic concept of the BCP is to continue operations as far as possible even in times of emergency. If suspension is unavoidable, then the affected operations should be resumed as soon as possible. For instance, even if a serious incident, such as a major earthquake, occurs and operations are suspended, in principle, JPX aims to resume clearing operations in about two hours and trading operations within 24 hours to prevent the loss of a trading day to the greatest extent possible.

#### Procedures for Restoring Trading Operations based on BCP after Disaster Occurs



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To achieve said targets, in addition to its primary data center where operations normally take place, JPX also maintains a secondary (backup) center, which is located in a different area to avoid having both centers be simultaneously affected. If the primary center is affected by a disaster and cannot continue operations, operations are switched over to trading and other core systems in the backup center to allow trading to resume as quickly as possible. Furthermore, in a bid to help further enhance the reliability of the Japanese market, the decision was made to construct a new secondary (backup) center away from Tokyo in the Kansai region, where in the case of a disaster such as a major large-scale earthquake in the Tokyo Metropolitan area, there would be little or no fear of damage to societal infrastructure causing a shortage of essential services such as electricity. The new secondary (backup) center is scheduled to come online progressively from FY2021.

Furthermore, in preparation for a large-scale earthquake and other wide-area disasters, the core telecommunications network, arrownet, is designed as an optical ring network that surrounds the Tokyo Metropolitan area. Even if a part of the network is severed by a disaster, transmissions will be re-routed immediately, ensuring that connections are maintained. The BCP also defines the response policy for each type of identified risk, as well as detailed plans for establishing the BCP emergency headquarters and securing personnel and communication methods. JPX reviews its BCP at least once a year and revises it accordingly in light of changes in the environment.

#### **Business Continuity Plan**

Web

https://www.jpx.co.jp/english/corporate/governance/ risk/bcp/index.html

#### Covid-19 Response

JPX Group is implementing the following measures to ensure business continuity as a means of fulfilling its responsibilities as a market operator to the best of its ability and of ensuring that impact from Covid-19 does not affect the stable operation of its markets. This is in addition to various measures to prevent further spread of Covid-19 in line with guidelines such as the Japanese government's Basic Policies for Prevention and Control of the Novel Coronavirus.

- Established a BCP (Business Continuity Plan) Emergency Headquarters headed by the Group CEO, in line with JPX Group's BCP
- Scrutinized the nature of business for each department; implemented and encouraged\* working from home for employees whose duties do not require physical attendance at the office
- For employees whose duties require physical attendance at the office, actively implemented staggered working hours using the flextime system
- Developed and implemented a multi-channel operational structure for employees whose duties require physical attendance at the office, by dividing them into several teams that work at physically different locations, in principle rotating between the office and home but also using nearby backup facilities, etc.

JPX Group will continue to monitor the spread of Covid-19, maintain a business continuity system and respond flexibly in response to changes in government policy, etc.

<sup>\*</sup> Approximately 70% of employees work from home (excluding employees engaged in operations essential to maintaining stable capital market operations, such as trading supervision, clearing and settlement operations, and system operations (essential workers)).

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 Risk Management
 Internal Control Systems and Compliance

### **Internal Control Systems and Compliance**

Besides maintaining well-designed business operating systems for stable and appropriate execution of business, all officers and employees observe laws and regulations and demonstrate a strong sense of ethics in the performance of their daily tasks.

#### Internal Control Systems

JPX has a Basic Policy on Establishment of Internal Control System and develops internal control systems based on this policy. To ensure the proper operation of business processes throughout the Group, JPX creates systems for ensuring compliance with laws and regulations, safeguarding and managing information, managing risk of loss, ensuring efficient operations, and for internal controls. To ensure that these systems are functioning properly, the Internal Auditing Office, an independent unit that reports directly to the Group CEO and COO, periodically confirms and assesses the status of internal controls.



Basic Policy on Establishment of Internal Control System https://www.jpx.co.jp/english/corporate/governance/ internal-control/index.html

#### **Compliance Program**

JPX has a Charter of Corporate Behavior in place as a set of standards for ethics and morals, which clearly states the expected corporate behavior. In order to ensure the effectiveness of internal controls, JPX continues to increase awareness of compliance among management and employees by continually renewing internal systems, as well as through education and training.



#### Compliance Program

https://www.jpx.co.jp/english/corporate/governance/ compliance/index.html

#### Charter of Corporate Behavior

The Charter of Corporate Behavior serves to make clear JPX's social responsibilities as an open and transparent corporation positioned in harmony with society.

The Charter states the basic policies for corporate behavior in terms of ethics and morals. It also clearly indicates JPX's investor-centric stance and reflects our commitment to being an open company.

#### Organizational System

The Group CEO assumes responsibility for compliance and oversees all compliance-related matters. The Group CEO is assisted by the officer responsible for compliance and the Compliance Secretariat. JPX has a Compliance Hotline in place to provide a channel for reporting information and making inquiries regarding clear or suspected violations of laws and internal rules, including against the Charter of Corporate Behavior.

When certain behavior involving JPX officers or employees is suspected to be in violation of compliance, the hotline makes it possible to detect such acts promptly from an incoming call and introduce measures and frameworks to address them.

#### Activities for Continued Awareness

JPX engages in a number of activities to maintain awareness of compliance issues. These include cross-divisional meetings among all staff in charge of compliance matters, distributing compliance handbooks, communicating knowledge on compliance through the intranet, and holding e-learning courses.

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### **Review of Operations and Financial Condition**

#### Financial Highlights of FY2020 (IFRS)

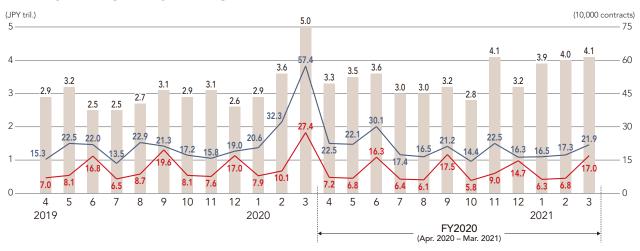
					(JPY mil.)
	FY2016	FY2017	FY2018	FY2019	FY2020
Operating Revenue	107,885	120,711	121,134	123,688	133,343
Operating Expenses	50,185	50,902	54,111	58,532	61,394
Operating Income	59,377	71,791	69,535	68,533	74,565
Net Income Attributable to Owners of the Parent Company	42,124	50,484	49,057	47,609	51,389
EBITDA	71,595	82,505	82,568	85,683	91,594
Dividends per Share <sup>1</sup> (JPY)	47.0	67.0	70.0	54.0	68.0
ROE	16.4%	19.0%	17.6%	16.3%	16.6%

Note: 1. The amounts shown reflect the stock split (2 for 1) that became effective on October 1, 2015. The dividend figures for FY2017, FY2018, and FY2020 include a commemorative dividend of JPY 10 per share, a special dividend of JPY 15 per share, and a special dividend of JPY 10 per share, respectively.

#### Average Daily Trading Value/Volume of Main Products

	FY2016	FY2017	FY2018	FY2019	FY2020
Cash Equities (trading value) <sup>1</sup>	JPY 2,998.7 billion	JPY 3,446.2 billion	JPY 3,306.8 billion	JPY 3,081.1 billion	JPY 3,483.8 billion
TOPIX Futures (trading volume)	89,966 contracts	105,287 contracts	103,896 contracts	121,034 contracts	101,917 contracts
Nikkei 225 Futures <sup>2</sup> (trading volume)	184,250 contracts	200,646 contracts	205,046 contracts	232,821 contracts	199,383 contracts
Nikkei 225 Options <sup>3</sup> (trading value)	JPY 24.8 billion	JPY 27.0 billion	JPY 23.0 billion	JPY 26.8 billion	JPY 26.5 billion
10-year JGB Futures (trading volume)	28,569 contracts	35,978 contracts	42,087 contracts	39,640 contracts	29,090 contracts

Notes: 1. Average daily trading value of common stocks on TSE 1st/2nd Sections, Mothers, JASDAQ, TOKYO PRO Market, and ETFs/ETNs, REITs, etc. in auction and off-auction trading. 2. Includes trading volume of Nikkei 225 mini, which is calculated using a conversion factor of 1/10. 3. Excludes weekly options.



#### Monthly Average Daily Trading Value/Volume of Main Products

Cash Equities (trading value)<sup>1</sup> (left axis) — TOPIX Futures (trading volume) (right axis) — Nikkei 225 Futures (trading volume)<sup>2</sup> (right axis)

Notes: 1. Average daily trading value of common stocks on TSE 1st/2nd Sections, Mothers, JASDAQ, TOKYO PRO Market, and ETFs/ETNs, REITs, etc. in auction and off-auction trading

2. Includes trading volume of Nikkei 225 mini, which is calculated using a conversion factor of 1/10.

## Adoption of IFRS

JPX has adopted the International Financial Reporting Standards (IFRS) to facilitate comparisons of financial results of JPX with those of other exchanges located overseas and to increase investor convenience.

## Summary of Performance

In FY2020, JPX recorded operating revenue of JPY 133,343 million (up 7.8% year on year) and operating expenses were JPY 61,394 million (up 4.9% year on year). As a result, JPX recorded operating income of JPY 74,565 million (up 8.8% year on year) and income before income tax of JPY 74,732 million (up 8.2% year on year).

In addition, net income attributable to owners of the parent company after income tax was JPY 51,389 million (up 7.9% year on year).

## **Overview of Performance**

## **Operating Revenue**

Operating revenue in FY2020 increased by 7.8% from FY2019 to JPY 133,343 million.

## Breakdown of Changes in Operating Revenue

(JPY mil.)



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## **Operating Revenue**

	FY2016	FY2017	FY2018	FY2019	FY202	0
	Amount (JPY mil.)	Ratio				
Trading Services Revenue	45,703	51,766	48,660	48,589	53,171	40%
Trading Fees	36,523	42,430	39,248	39,118	43,463	
Cash Equities	26,168	30,652	28,084	25,757	31,056	<b>71%</b> <sup>1</sup>
Financial Derivatives	10,354	11,777	11,163	12,255	10,393	<b>24%</b> <sup>1</sup>
TOPIX Futures	1,841	2,106	2,031	2,254	1,933	
Nikkei 225 Futures (incl. Nikkei 225 mini)	4,231	4,691	4,523	5,101	4,380	
Nikkei 225 Options	2,834	3,149	2,563	2,888	2,555	
10-year JGB Futures	1,329	1,672	1,945	1,811	1,353	
Others	117	157	99	200	170	
Commodity Derivatives		—	—	1,104	2,014	5% <sup>1</sup>
Basic Fees	1,044	1,043	1,017	1,020	1,018	
Access Fees	4,985	4,851	4,800	4,701	5,047	
Trading System Facilities Usage Fees	3,066	3,341	3,499	3,646	3,544	
Others	84	98	95	101	96	
Clearing Services Revenue	21,454	23,473	24,788	26,427	27,939	21%
Listing Services Revenue	12,903	14,547	14,025	14,322	16,660	12%
Initial/Additional Listing Fees	4,317	5,002	3,994	3,965	5,630	
Annual Listing Fees	8,586	9,544	10,030	10,356	11,029	
Information Services Revenue	18,112	19,878	21,029	21,977	24,128	18%
Others	9,711	11,045	12,630	12,371	11,443	9%
Total	107,885	120,711	121,134	123,688	133,343	100%

Note 1: Figures indicate percentage of Trading Fees.

## Reference: Major Stock Price Indices

As of March 31	FY2016	FY2017	FY2018	FY2019	FY2020
ТОРІХ	1,512.60 pts.	1,716.30 pts.	1,591.64 pts.	1,403.04 pts.	1,954.00 pts.
Nikkei 225	JPY 18,909.26	JPY 21,454.30	JPY 21,205.81	JPY 18,917.01	JPY 29,178.80
JPX-Nikkei Index 400	13,522.45 pts.	15,180.09 pts.	14,176.82 pts.	12,573.18 pts.	17,622.89 pts.

#### 1. Trading services revenue

Trading services revenue consists of "Trading Fees" based on the value of securities traded and the volume of financial and commodity derivatives traded, "Basic Fees" based on the trading participant's type of trading qualification, "Access Fees" based on the number of orders, "Trading System Facilities Usage Fees" based on the types of trading system facilities used, and other similar fees.

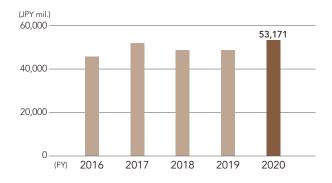
For the fiscal year ended March 31, 2021, trading services revenue increased by 9.4% year on year to JPY 53,171 million, due mainly to increased trading fees with the value of securities traded exceeding the level of the previous fiscal year.

#### 2. Clearing services revenue

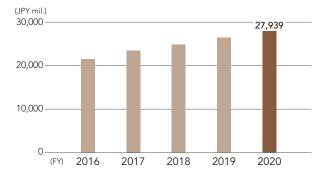
Clearing services revenue is comprised of mainly clearing fees related to the financial instruments obligation assumption business carried out by Japan Securities Clearing Corporation.

For the fiscal year ended March 31, 2021, JPX recorded clearing services revenue of JPY 27,939 million (up 5.7% year on year).

#### Trading services revenue



#### Clearing services revenue

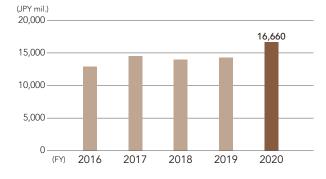


#### 3. Listing services revenue

Listing services revenue is comprised of "Initial/ Additional Listing Fees" that are received based on the issue amount when a company initially lists or when a listed company issues additional shares, and "Annual Listing Fees" which are made up of fees received from listed companies based on their market capitalization and other similar fees.

For the fiscal year ended March 31, 2021, listing services revenue increased 16.3% year on year to JPY 16,660 million, due mainly to an increase in revenue from initial and additional listing fees.

#### Listing services revenue



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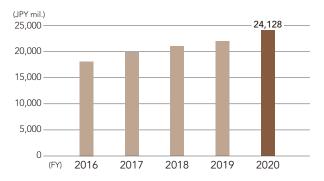
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#### 4. Information services revenue

Information services revenue consists of market information fees, which are comprised of revenue related to the provision of market information to information vendors, etc., as well as revenue related to the index business, and revenue related to the provision of corporate action information and other information.

For the fiscal year ended March 31, 2021, JPX recorded information services revenue of JPY 24,128 million (up 9.8% year on year) due mainly to an increase in revenue from market information fees.

#### Information services revenue

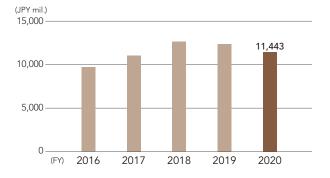


#### 5. Other operating revenue

Other operating revenue includes the following items: usage fees for arrownet, which connects trading, market information, and other systems to trading participants and other users; usage fees related to co-location services that allow trading participants, information vendors, and other users to install devices in the system center for the purpose of improving trade execution efficiency by shortening order transmission time, etc.; and revenue from system development and operations conducted by consolidated subsidiary TOSHO SYSTEM SERVICE CO., LTD.

For the fiscal year ended March 31, 2021, JPX recorded other operating revenue of JPY 11,443 million (down 7.5% year on year).

#### Other operating revenue



## **Operating Expenses**<sup>1</sup>

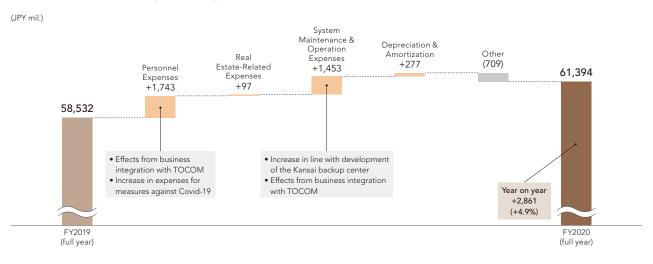
During FY2020, personnel expenses increased to JPY 19,255 million (up 10.0% year on year).

System maintenance and operation expenses include expenses related to maintenance and management/operation of various systems including the cash equities and derivatives trading systems. System maintenance and operation expenses increased to JPY 13,524 million (up 12.0% year on year).

Depreciation and amortization increased to JPY 13,632 million (up 2.1% year on year).

Other operating expenses decreased to JPY 10,609 million (down 6.3% year on year).

## Breakdown of Changes in Operating Expenses



#### **Operating Expenses**

					(JPY mil.)
	FY2016	FY2017	FY2018	FY2019	FY2020
Personnel Expenses	15,614	16,329	16,584	17,512	19,255
System Maintenance and Operation Expenses	10,813	12,100	11,898	12,071	13,524
Depreciation and Amortization	10,983	9,431	11,699	13,354	13,632
Real Estate-Related Expenses	4,062	3,904	3,939	4,275	4,372
Other	8,711	9,136	9,989	11,318	10,609
Total	50,185	50,902	54,111	58,532	61,394

Notes 1: With the new accounting standard for leases under IFRS applied from FY2019, a portion of real estate-related expenses now included under depreciation is included under "Real Estate-related Expenses" in these columns.

## Basic Policy for Allocation of Profit

JPX adopts a dividend policy with a target payout ratio of approximately 60% tied to business performance while giving due consideration to the importance of internal reserves for the following purposes:

- Maintaining sound financial health as a financial instruments exchange group;
- Preparing for risks as a clearing organization; and
- Enabling the corporate group to pursue investment opportunities to raise the competitiveness of its markets as they arise.

In line with this policy, the dividend for FY2021 is expected to be JPY 52 per share (JPY 26 per share at the end of the second quarter). (As of April 2021)

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# **Consolidated Statement of Financial Position**

		(JPY mil.)			(JPY
	As of March 31, 2020	As of March 31, 2021		As of March 31, 2020	As of March 3 2021
Assets			Liabilities and equity		
Current assets			Liabilities		
Cash and cash equivalents	71,883	108,209	Current liabilities		
Trade and other receivables	16,686	14,936	Trade and other payables	6,643	4,1
Clearing business financial assets	60,329,672	53,649,780	Bonds and loans payable	32,500	32,5
Specified assets for deposits			1 Clearing business financial liabilities	60,329,672	53,649,7
from clearing participants Specified assets for legal	6,549,099	5,996,143	2 Deposits from clearing participants	6,549,099	5,996,1
guarantee funds	762	673	3 Legal guarantee funds	762	6
Income tax receivables	5,922	5,286	Trading participant cocurity		
Other financial assets	117,400	116,800	4 money	8,248	8,1
Other current assets	1,837	2,033	Income tax payables	10,289	15,0
Total current assets	67,093,263	59,893,862	Other current liabilities	10,062	8,7
			Total current liabilities	66,947,278	59,715,
			Non-current liabilities		
			Bonds and loans payable	19,953	19,9
Non-current assets			Retirement benefit liabilities	8,866	9,0
Property and equipment	14,798	10,697	Other non-current liabilities	2,162	2,3
Goodwill	67,374	67,374	Deferred tax liabilities	2,665	2
Intangible assets	35,045	35,977	Total non-current liabilities	33,648	31,7
Retirement benefit assets	5,642	8,204	Total liabilities	66,980,926	59,746,9
Investments accounted for using the equity method	14,703	16,736			
Specified assets for default			Equity		
compensation reserve funds	27,948	27,948	Share capital	11,500	11,5
Other financial assets	18,156	5,309	Capital surplus	39,716	39,7
Other non-current assets	6,049	6,181	Treasury shares	(1,548)	(1,8
Deferred tax assets	3,321	3,385	Other components of equity	5,602	ç
Total non-current assets	193,039	181,815	6 Retained earnings	242,958	271,0
			Total equity attributable to owners of the parent company	298,228	321,3
			Non-controlling interests	7,146	7,3
			Total equity	305,375	328,7
otal assets	67,286,302	60,075,678	Total liabilities and equity	67,286,302	60,075,6

1 Assets and liabilities assumed by Japan Securities Clearing Corporation (JSCC) for derivatives trading, etc. as of the end of the fiscal year.

2 Deposits from clearing participants required by JSCC for recovering losses incurred by JSCC which are caused by clearing participants defaulting on their obligations.

3 Deposits from trading participants required by Tokyo Stock Exchange (TSE), Osaka Exchange (OSE), and Tokyo Commodity Exchange (TOCOM) for recovering losses incurred by parties who have entrusted securities trading, etc. which are caused by trading participants defaulting on their obligations.

4 Deposits from trading participants required by TSE, OSE, and TOCOM for recovering losses incurred by TSE, OSE, and/or TOCOM which are caused by trading participants defaulting on their obligations.

5 Reserve funds to cover losses resulting from the clearing business.

6 This figure includes the amount of reserve funds in the above 5.

# Consolidated Statement of Income/ Consolidated Statement of Comprehensive Income

## Consolidated Statement of Income

		(JPY mil.)
	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Revenue		
Operating revenue	123,688	133,343
Other revenue	975	359
Total revenue	124,663	133,702
Expenses		
Operating expenses	58,532	61,394
Other expenses	54	5
Total expenses	58,587	61,399
Share of income of investments accounted for using the equity method	2,457	2,263
Operating income	68,533	74,565
Financial income	665	266
Financial expenses	103	99
Income before income tax	69,095	74,732
Income tax expense	20,781	22,714
Net income	48,314	52,017
Net income attributable to		
Owners of the parent company	47,609	51,389
Non-controlling interests	705	628
Net income	48,314	52,017
Earnings per share		
Basic (JPY)	88.91	96.00
Diluted (JPY)	_	_

## Consolidated Statement of Comprehensive Income

		(JPY mil.)
	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Net income	48,314	52,017
Other comprehensive income		
Items that will not be reclassified to profit or loss		
Net gain (loss) on revaluation of financial assets measured at fair value through other comprehensive income	1,930	271
Remeasurements of defined benefit plan	(49)	1,813
Share of other comprehensive income of investments accounted for using the equity method	0	0
Other comprehensive income, net of tax	1,881	2,084
Comprehensive income	50,195	54,102
Comprehensive income attributable to		
Owners of the parent company	49,490	53,474
Non-controlling interests	705	628
Comprehensive income	50,195	54,102

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# **Consolidated Statement of Changes in Equity**

					(JPY mil.)
		Equity attributa	ble to owners of the	parent company	
				Other compo	nents of equity
	Share capital	Capital surplus	Treasury shares	Net gain (loss) on revaluation of financial assets measured at fair value through other comprehensive income	Remeasurements of defined benefit plan
Balance as of April 1, 2019	11,500	39,716	(1,213)	7,688	—
Net income	—	—	—	_	_
Other comprehensive income, net of tax	—		—	1,930	(49)
Total comprehensive income	_		_	1,930	(49)
Acquisitions of treasury shares	_	—	(350)	_	_
Dividends paid	—	—	—	—	—
Transfer from other components of equity to retained earnings	_		_	(4,016)	49
Other			15		
Total transactions with the owners	_	—	(334)	(4,016)	49
Balance as of March 31, 2020	11,500	39,716	(1,548)	5,602	—
Net income	—	—	—	—	—
Other comprehensive income, net of tax			—	271	1,813
Total comprehensive income	—	—	—	271	1,813
Acquisitions of treasury shares	—	—	(366)	—	—
Dividends paid	—	—	—	—	—
Changes in ownership interests in subsidiaries without loss of control	_	_	_	_	_
Transfer from other components of equity to retained earnings	_	_	_	(4,881)	(1,813)
Other			90		
Total transactions with the owners			(276)	(4,881)	(1,813)
Balance as of March 31, 2021	11,500	39,716	(1,825)	992	

					(JPY mil.)
	Equity attributa	ble to owners of the pa	irent company		
	Other components of equity			Non-controlling	
	Total	Retained earnings	Total	interests	Total equity
Balance as of April 1, 2019	7,688	227,317	285,009	6,441	291,450
Net income	—	47,609	47,609	705	48,314
Other comprehensive income, net of tax	1,881	—	1,881	—	1,881
Total comprehensive income	1,881	47,609	49,490	705	50,195
Acquisitions of treasury shares	_	_	(350)	_	(350)
Dividends paid	_	(35,935)	(35,935)	_	(35,935)
Transfer from other components of equity to retained earnings	(3,966)	3,966	_	_	_
Other	_	_	15	_	15
Total transactions with the owners	(3,966)	(31,968)	(36,270)	_	(36,270)
Balance as of March 31, 2020	5,602	242,958	298,228	7,146	305,375
Net income	_	51,389	51,389	628	52,017
Other comprehensive income, net of tax	2,084	_	2,084	_	2,084
Total comprehensive income	2,084	51,389	53,474	628	54,102
Acquisitions of treasury shares	_	—	(366)	_	(366)
Dividends paid	_	(30,035)	(30,035)	_	(30,035)
Changes in ownership interests in subsidiaries without loss of control	_	_	_	(396)	(396)
Transfer from other components of equity to retained earnings	(6,694)	6,694	_	_	_
Other	_	_	90	_	90
Total transactions with the owners	(6,694)	(23,341)	(30,311)	(396)	(30,708)
Balance as of March 31, 2021	992	271,006	321,391	7,378	328,769

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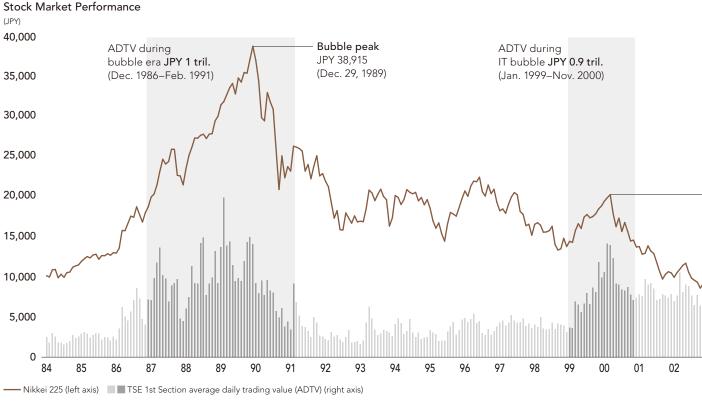
# **Consolidated Statement of Cash Flows**

		(JPY mil.)
	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2021
Cash flows from operating activities		
Income before income tax	69,095	74,732
Depreciation and amortization	16,499	16,783
Financial income	(665)	(266)
Financial expenses	96	93
Share of income of investments accounted for using the equity method	(2,457)	(2,263)
(Increase) decrease in trade and other receivables	(5,246)	1,750
Increase (decrease) in trade and other payables	420	(288)
(Increase) decrease in retirement benefit assets	230	(2,562)
Increase (decrease) in retirement benefit liabilities	12	151
Other	(424)	4,010
Subtotal	77,560	92,140
Interest and dividends received	899	498
Interest paid	(96)	(93)
Income taxes paid	(21,482)	(20,794)
Cash flows generated from operating activities	56,881	71,750
Cash flows from investing activities		
Payments into time deposits	(117,400)	(116,300)
Proceeds from withdrawal of time deposits	113,100	117,400
Purchase of property and equipment	(1,199)	(2,880)
Purchase of intangible assets	(12,379)	(12,558)
Proceeds from sales of investment securities	11,585	12,719
Payments for acquisition of subsidiaries	(3,165)	_
Other	23	106
Cash flows used in investing activities	(9,434)	(1,513)
Cash flows from financing activities		
Proceeds from loans payable	9,000	—
Repayments of loans payable	(9,000)	—
Repayments of lease liabilities	(3,125)	(3,133)
Dividends paid	(35,935)	(30,035)
Purchase of treasury shares	(350)	(366)
Other	_	(397)
Cash flows used in financing activities	(39,411)	(33,932)
Net increase (decrease) in cash and cash equivalents	8,035	36,305
Cash and cash equivalents at the beginning of the year	63,891	71,883
Effect of changes in exchange rate on cash and cash equivalents	(43)	19
Cash and cash equivalents at the end of the year	71,883	108,209

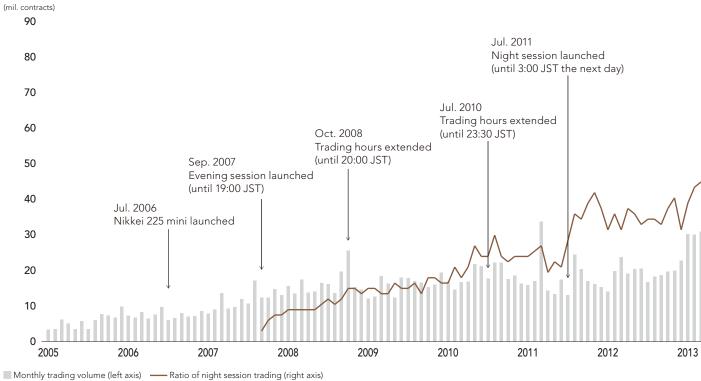
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## **Economic Data/Market Data**

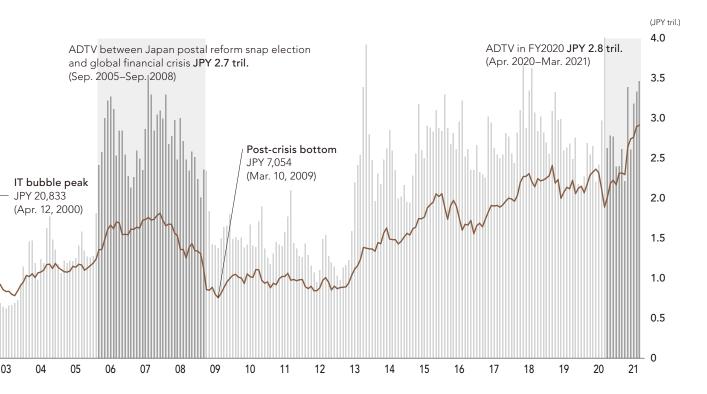


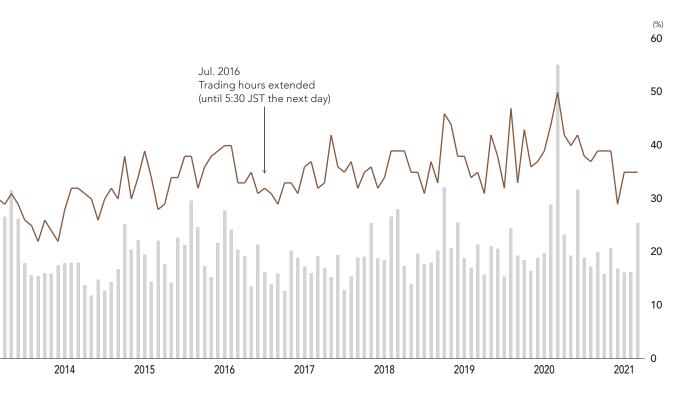
Note: The highest and lowest prices of the Nikkei 225 are based on closing prices.



#### Derivatives Trading Volume and Ratio of Night Session Trading

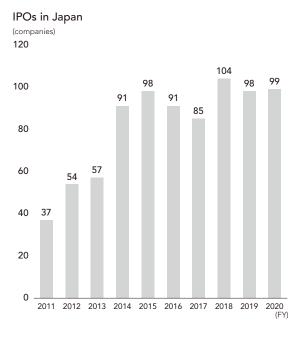
Note: Total trading volume for all financial derivatives

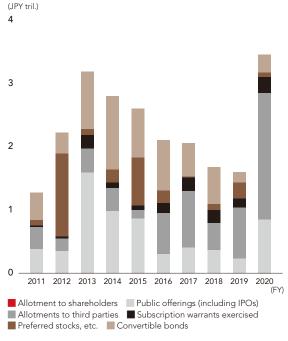




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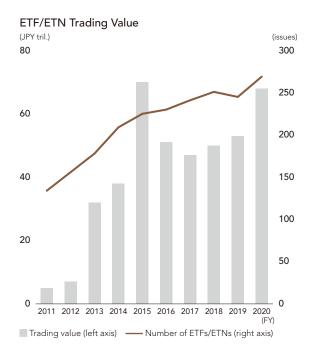
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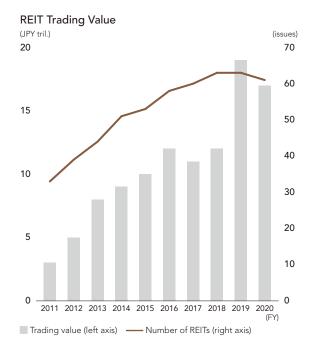




Financing by Listed Companies

Note: Excluding straight bonds (domestic and overseas)





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# Corporate Data (as of March 31, 2021)

## **Corporate Information**

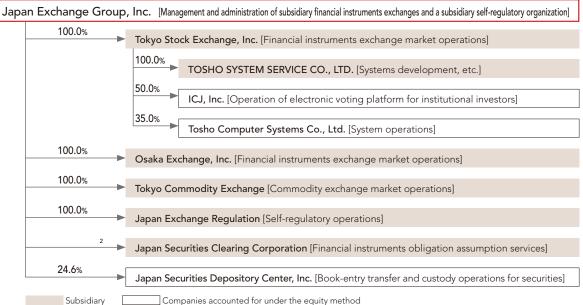
Company Name	Japan Exchange Group, Inc.
Number of Directors	14 directors, 10 executive officers (as of June 16, 2021)
Location of Head Office	2-1 Nihombashi-kabuto-cho, Chuo-ku, Tokyo 103-8224, Japan
Foundation	April, 1949
Amount of Capital	JPY 11.5 billion

Number of	1,197 (consolidated)	
Employees	Japan Exchange Group, Inc.	206
	Tokyo Stock Exchange, Inc.	429
	Osaka Exchange, Inc.	166
	Tokyo Commodity Exchange, Inc.	13
	Japan Exchange Regulation	198
	Japan Securities Clearing Corporation	95
	Other consolidated subsidiaries	90
Business	Management and administration of a fina	ancial
Description	instruments exchange holding company	
	group, and other ancillary businesses	

## Information on the Corporate Group

JPX consists of six subsidiaries and three companies accounted for under the equity method, and its primary operations are the provision and operation of financial instruments exchange markets.

Specifically, these include operations such as (i) providing market facilities for securities trading, securities index futures trading, securities options trading, commodity futures trading, and commodity index futures trading, (ii) publishing market quotations and ensuring the fairness of securities trading, etc. and (iii) providing financial instruments obligation assumption services, etc.



Notes: 1. Percentages indicate share of voting rights. 2. Class A shares: 99.98% / Class B shares: 100.0% / Class C shares: 60.4% / Class D shares: 52.9%

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About JPX Web https://www.jpx.co.jp/ (Japanese) https://www.jpx.co.jp/english/ (English)





**Investor Relations** 

https://www.jpx.co.jp/corporate/investor-relations/ (Japanese) https://www.jpx.co.jp/english/corporate/investor-relations/ (English)

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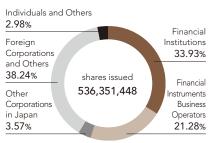
## **Stock Information**

Stock Code	8697	
Listed Market	Tokyo Stock Exchange (1st Section)	
Business Year	April 1 to March 31	
Annual General Shareholders Meeting	June	
Record Date	March 31 for Annual General Shareholders Meeting and for Year-end dividend and September 30 for Interim dividend	

Number of Shares per Share Unit	100 shares
Number of Shares	Total number of shares authorized to be issued:2,180,000,000 sharesTotal number of shares issued:536,351,448 shares
Number of Shareholders	53,327

## JPX's Shareholders

## Distribution of Shareholders



#### Major Shareholders

	No. of Shares Held	Shareholding Ratio (%)
1 The Master Trust Bank of Japan, Ltd. (Trust Account)	57,976,300	10.81
2 Custody Bank of Japan, Ltd. (Trust Account)	29,770,500	5.55
3 Custody Bank of Japan, Ltd. (Trust Account 7)	14,236,800	2.65
4 NORTHERN TRUST CO. (AVFC) SUB A/C NON TREATY	13,485,444	2.51
5 SMBC Nikko Securities Inc.	12,769,500	2.38
6 THE BANK OF NEW YORK 134104	11,269,700	2.10
7 Custody Bank of Japan, Ltd. (Trust Account 5)	8,169,800	1.52
8 STATE STREET BANK WEST CLIENT - TREATY 505234	8,084,336	1.51
9 MUFG Bank, Ltd.	7,557,000	1.41
10 Custody Bank of Japan, Ltd. (Trust Account 6)	7,242,100	1.35

Note: The shareholding ratios are calculated after deducting seven treasury shares.



## JPX Stock Price (rebased to 100 on April 1, 2020)



#### About JPX Logo

The logo expresses our aspirations toward dynamic and international growth in our ambition to become Asia's No. 1 market.

The four rising bars represent the 4 C's of our creed – adopting a "Customer First" approach of prioritizing customer needs, pursuing "Creativity" in innovative solutions, building "Credibility" and public confidence, and achieving "Competency" by harnessing employee potential.



## JAPAN EXCHANGE GROUP

TOKYO STOCK EXCHANGE OSAKA EXCHANGE TOKYO COMMODITY EXCHANGE JAPAN EXCHANGE REGULATION JAPAN SECURITIES CLEARING CORPORATION

## JAPAN EXCHANGE GROUP, INC.

2-1 Nihombashi-kabuto-cho, Chuo-ku, Tokyo 103-8224, Japan Corporate Communications Tel: +81-3-3666-1361 (Main phone number)