



JPX Report 2019

JAPAN EXCHANGE GROUP, INC.



1. Overview of JPX

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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 corporate social responsibility. Our goal in publishing this JPX Report 2019 is to provide readers with a deeper understanding of this idea and our initiatives in business activities.

This report consists of four chapters. First, "Overview of JPX" illustrates JPX's corporate philosophy, role in society, and business model, etc. "Strategies for Creating Value" explains the progress made under our management plan. Then, we introduce our varied initiatives for creating value in "The Foundations of Value Creation," and lastly, we provide an outline of JPX's "Financial and Corporate Data".

August 2019

Reference guidelines

- International Integrated Reporting Council (IIRC) framework
- Guidance for Collaborative Value Creation (METI)



Disclaimer

This publication is prepared solely for the purpose of providing information regarding Japan Exchange Group, Inc., and, as such, it is not intended as any offer or sale of securities or other similar action 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 our assumptions and beliefs in light of the information currently available to us and are subject to risks and uncertainties. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, our actual results may vary materially from those we currently anticipate. Given these risks and uncertainties, you are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date of this publication. We disclaim any obligation to update any of the forward-looking statements contained in this publication to reflect future actual events or developments.

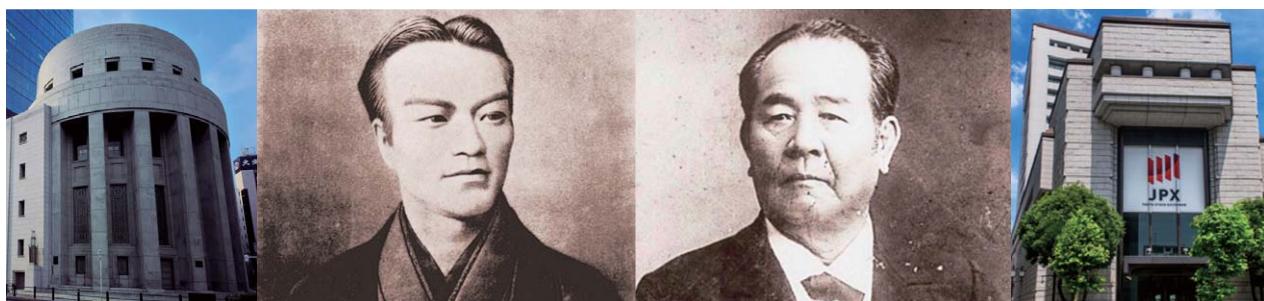


Who we are...

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, Eiichi Shibusawa, who is known as the father of capitalism in Japan, established Tokyo Stock Exchange. That same year, Tomoatsu Godai, a businessman who was instrumental in the economic development of Osaka, established Osaka Stock Exchange.

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



Osaka Exchange

Tomoatsu Godai

Eiichi Shibusawa

Tokyo Stock Exchange

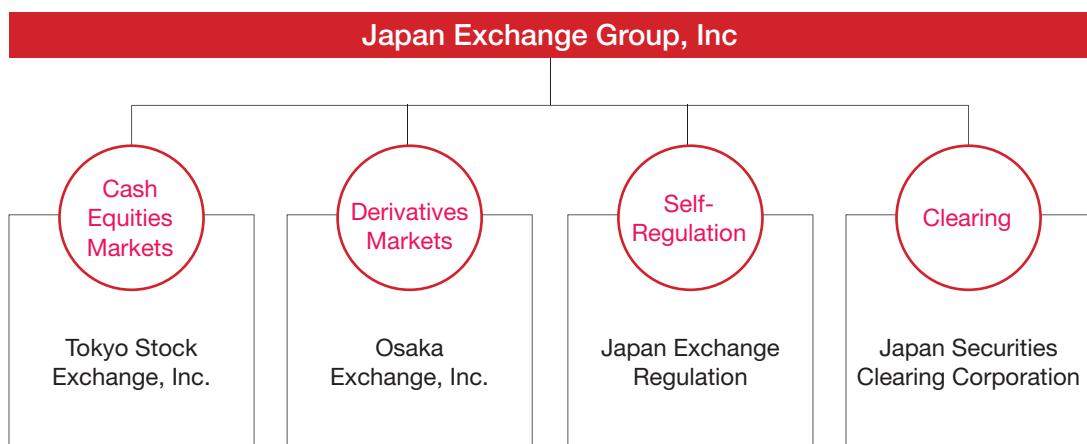
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JPX Organizational Structure



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 markets,
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 into new partnerships.



The Role of Exchange Markets

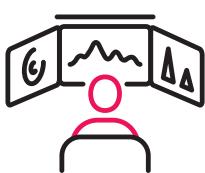
The markets established by JPX provide companies with business financing methods, investors with asset management opportunities, and society as a whole with price discovery functions. By fulfilling these social roles, we contribute to realizing an affluent society through sustainable market development.

For companies



Flexible business financing methods

For investors



Effective asset management opportunities

For society



Price discovery functions (Economic barometer)



Exchanges



System usability

Market reliability

Guaranteed fairness

Attractive listed products

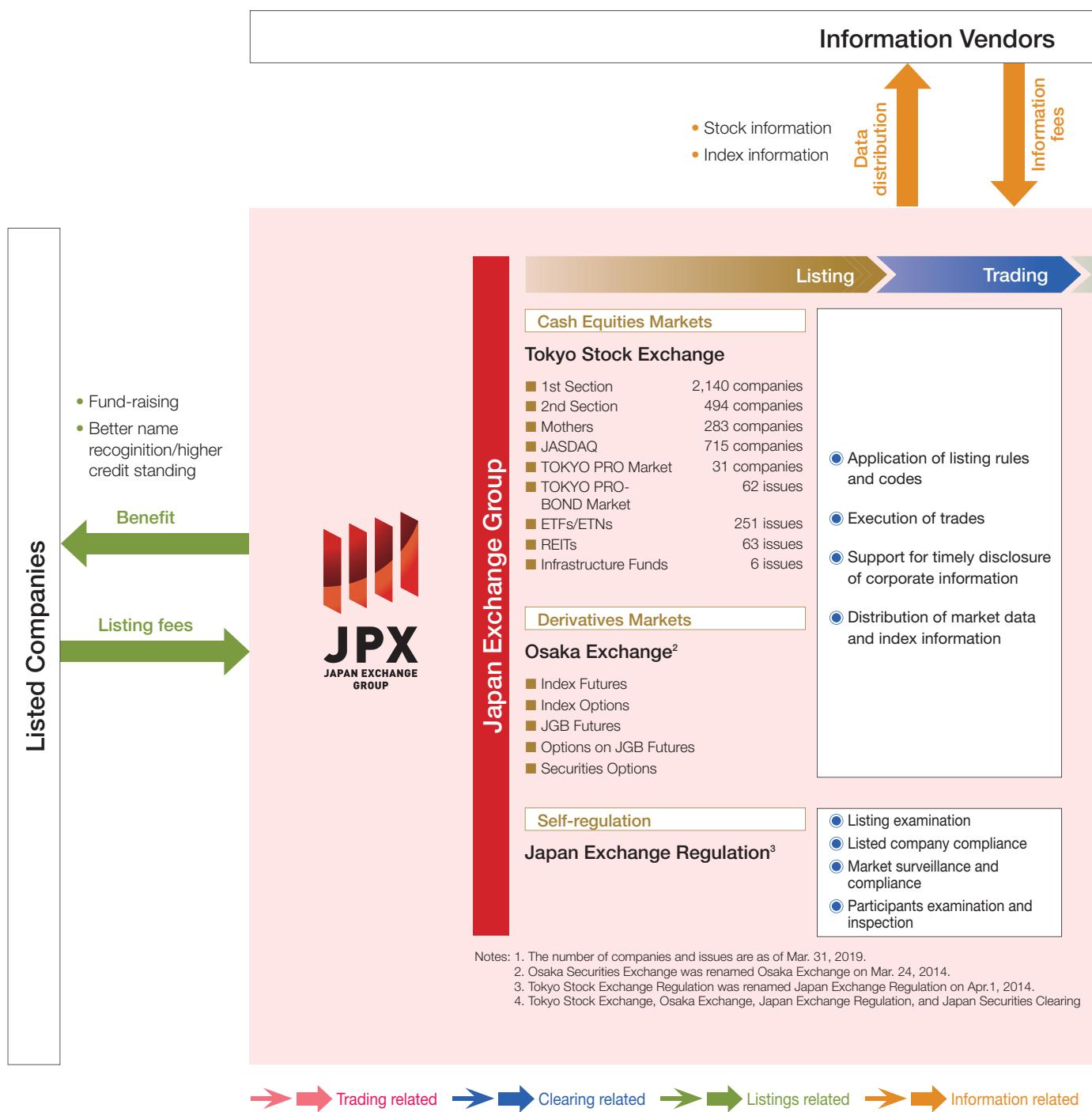
Wide-ranging investor base

1. Overview of JPX

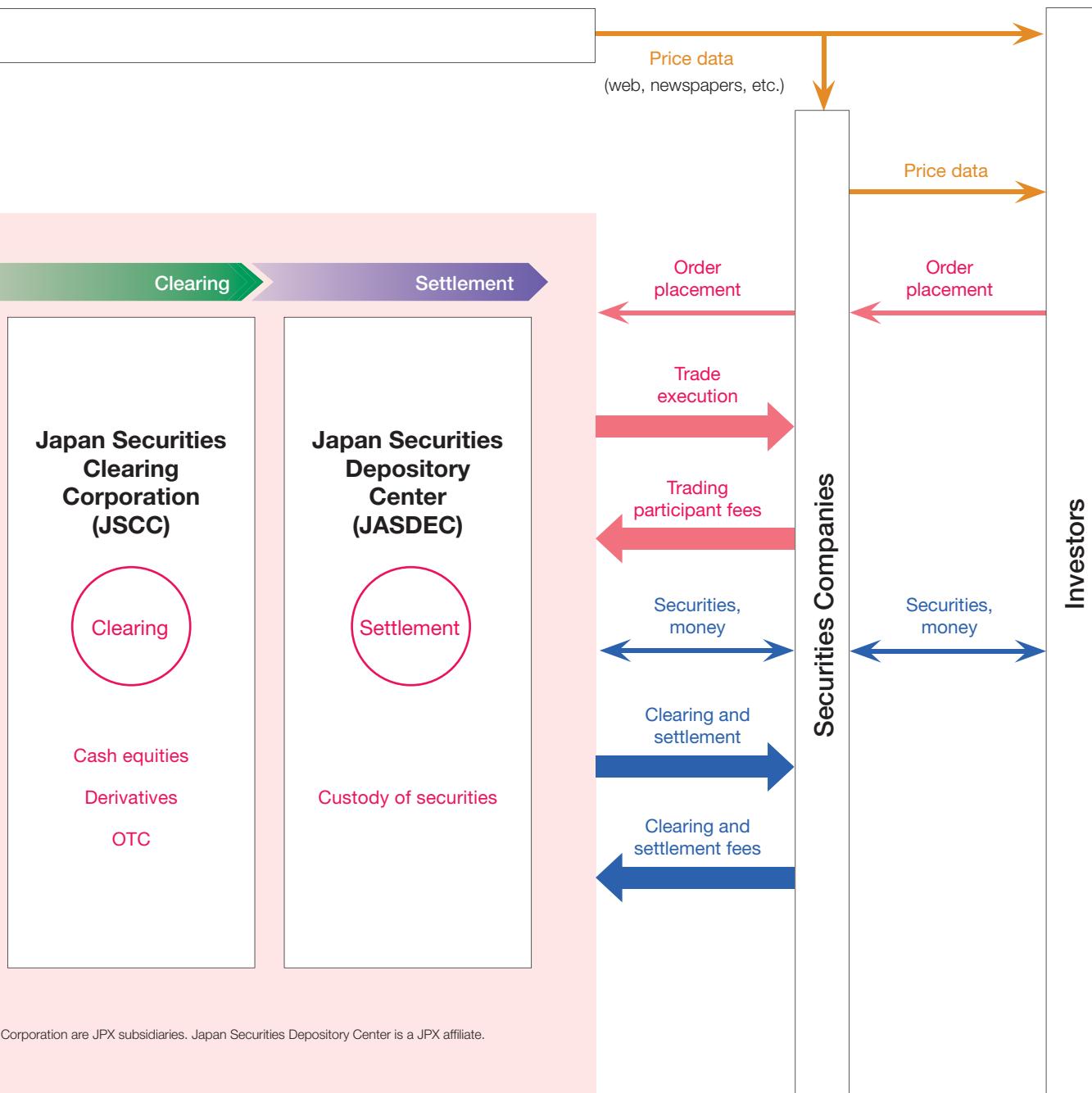
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Business Model

In addition to TSE, which handles cash equities markets, and OSE, which handles derivatives markets, the corporate 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.



As consideration for JPX services, we receive various fees from market participants such as trading participants (i.e., securities companies), listed companies, and information vendors. Specifically, our sources of revenues are (1) revenues from trading services, (2) revenues from clearing services, (3) revenues from listing services, and (4) revenues from information services.



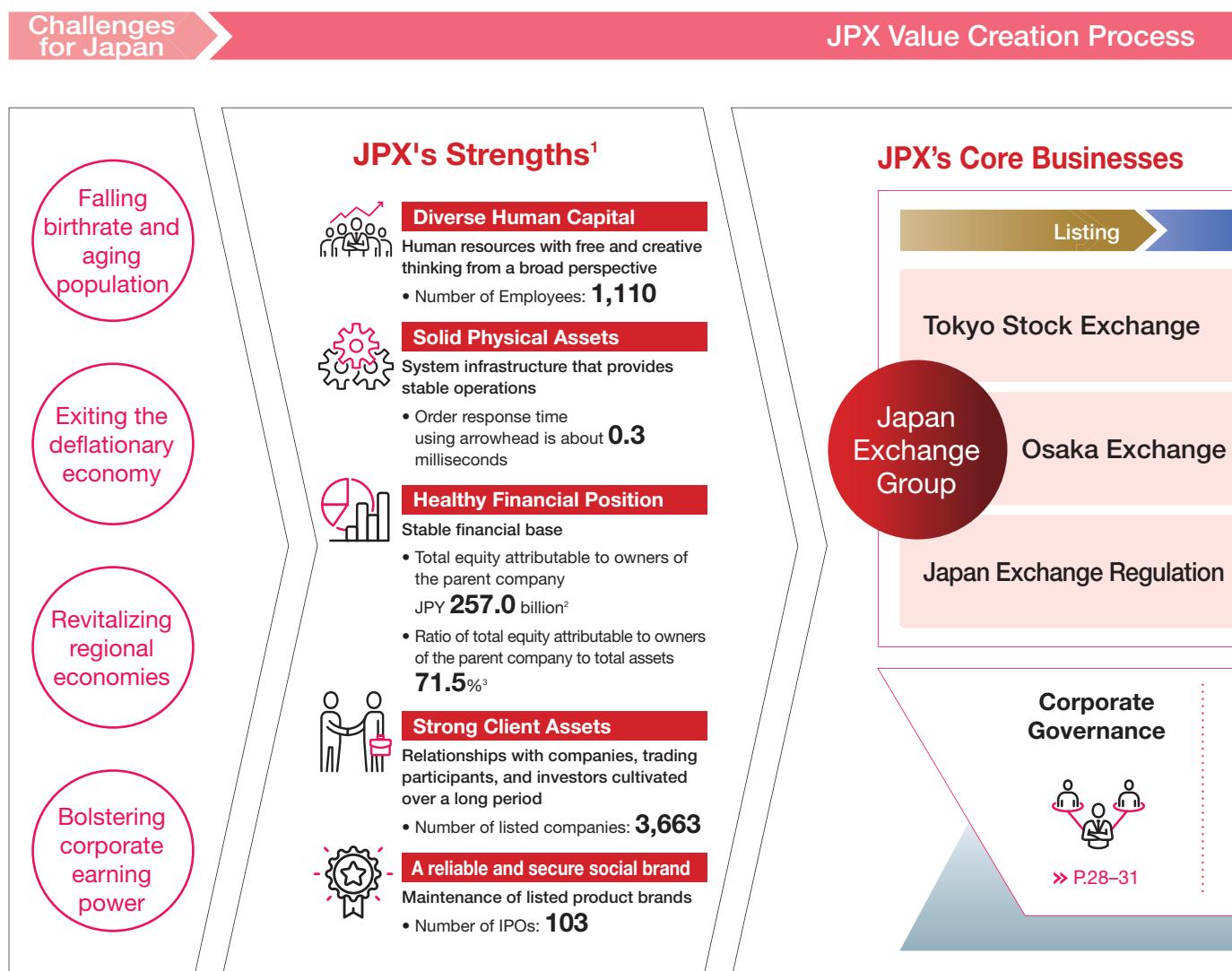
Corporation are JPX subsidiaries. Japan Securities Depository Center is a JPX affiliate.

1. Overview of JPX

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Creating Value at JPX

Vibrant securities markets are essential to economic development and general prosperity. Expanding the base of market participants is a key factor for sustainable growth and requires a robust financial market infrastructure, together with continuous provision of diverse products and services.



Notes: 1. Figures are for FY2018 results and as of the end of FY2018.
2. Calculated by subtracting "default compensation reserve funds" from "total equity attributable to owners of the parent company" in the Consolidated Statement of Financial Position
3. Total equity/assets figures exclude "clearing business assets", "deposits from clearing participants", "legal guarantee funds" and "default compensation reserve funds"

Contributing to realizing an affluent society

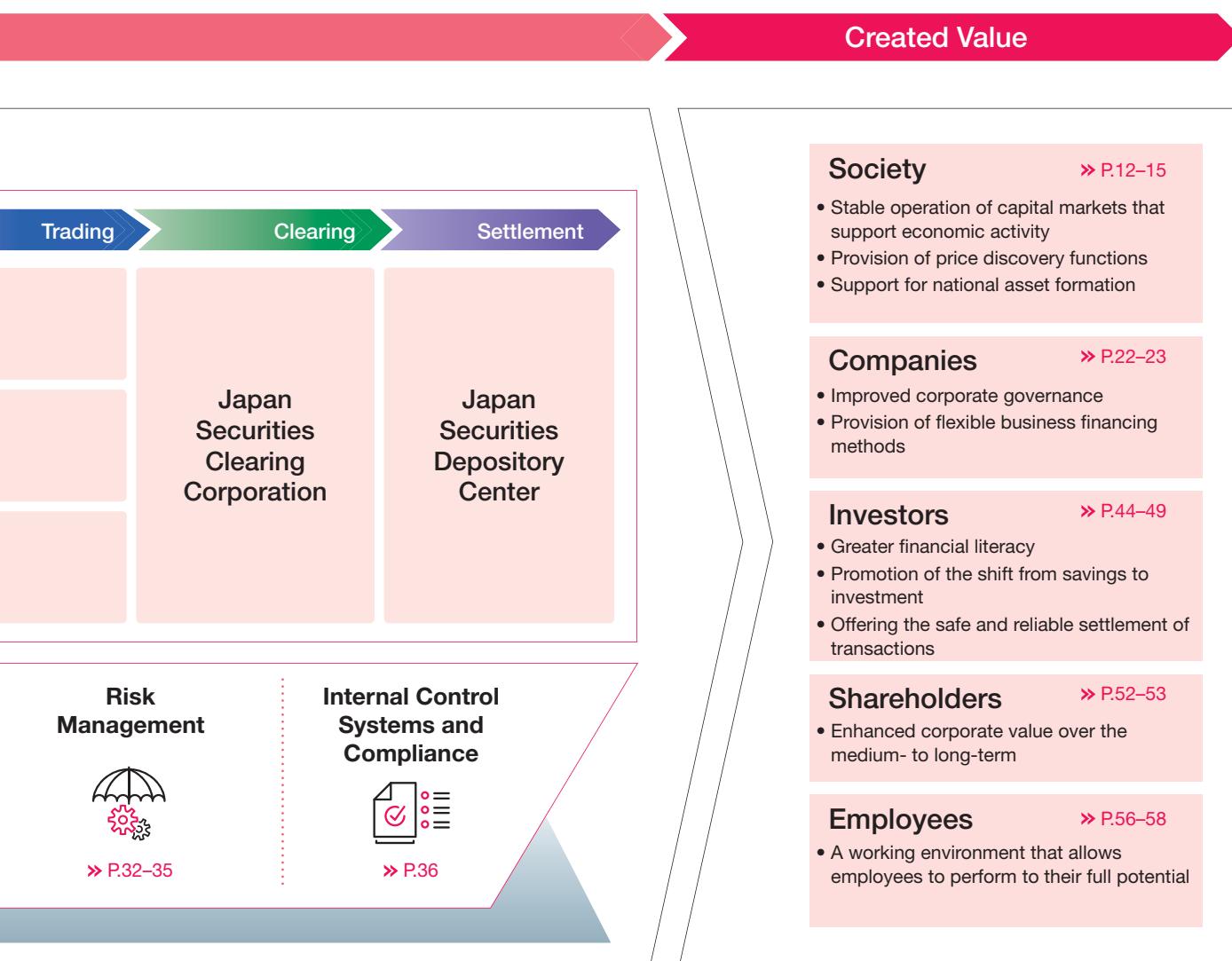
Medium-to Long-Term Future Total Smart Exchange

An exchange where anyone can trade any product safely and easily

Strategies to extend JPX's strengths

Solving social

JPX's aim is to realize the sustainable development of securities markets and contribute to the creation of a more affluent society. To this end, JPX ensures the reliability of securities markets and operates them in the public interest, works continuously to create a market base that is convenient, efficient, and transparent, and offers higher value added through creative and attractive services.



through sustainable market development

issues and the growth of JPX

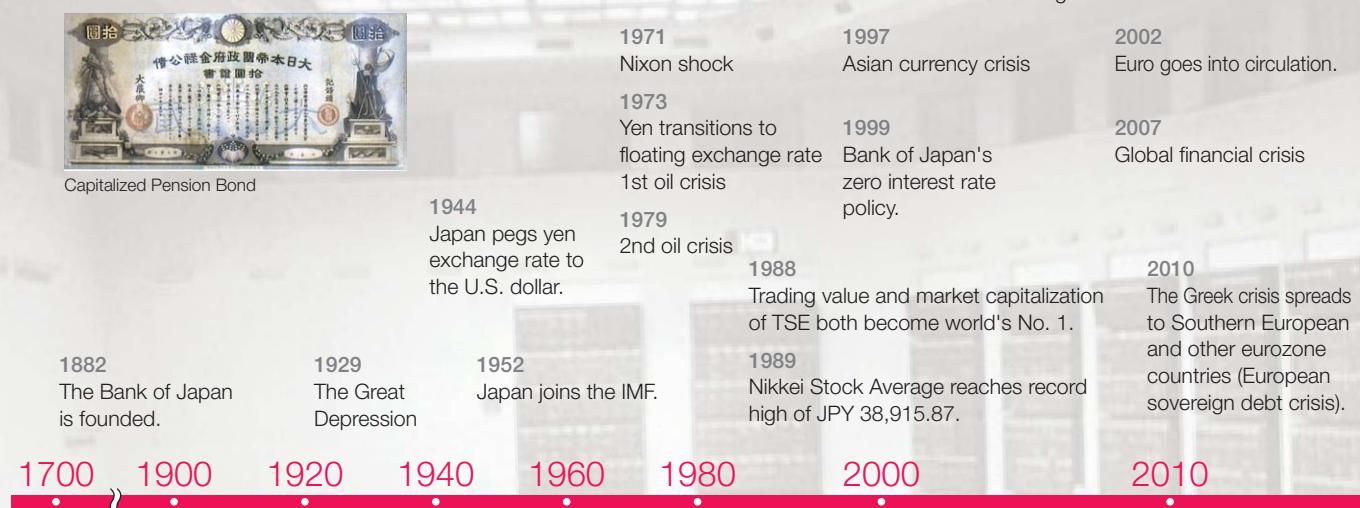
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JPX History

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.

History of the Japanese Economy and Key Global Developments



JPX History

1730
World's first securities futures exchange is founded in Dojima, Osaka.

1878
A group including Eiichi Shibusawa, who is known as the father of capitalism in Japan, establishes Tokyo Stock Exchange. That same year, a group including Tomoatsu Godai, a businessman who is instrumental in the economic development of Osaka, establishes Osaka Stock Exchange.



Tokyo Stock Exchange at the turn of the 20th Century



Osaka Stock Exchange during the Meiji Period

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

1969
Calculation of Tokyo Stock Price Index (TOPIX) begins.

1973
Foreign stocks are listed in response to internationalization.

1974
TSE's Market Information System goes into operation to deliver the latest information to investors.



Nikkei 225 Futures launch at OSE

1999
TSE launches Mothers, a market for new emerging companies, with OSE following suit in 2000 in the form of Nasdaq Japan (now integrated into JASDAQ).

The trading floors at both TSE and OSE are closed. After this, trading of stocks and other listed issues becomes computerized.

2001
TSE and OSE are demutualized.

ETF and J-REIT markets are established.

2003
Japan Securities Clearing Corporation (JSCC) goes into operation.

2004
OSE lists on OSE Hercules to become Japan's first public exchange.

1982
TSE launches the Second Section Trading System and promotes systematization in the securities market.

1985
TSE begins trading of government bond futures.

1988
TSE begins trading of TOPIX Futures and OSE begins trading of Nikkei Stock Average (Nikkei 225) Futures.

2013

The Bank of Japan starts quantitative and qualitative monetary easing with a target of 2% inflation.



Bank of Japan

2014
NISA launched.
2016

Britain decides to leave the EU.

BOJ announces the adoption of negative interest rates.

2018

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

**2017**

The range of eligible users of iDeCo increases.

**2013****2014****2015****2016****2017****2018****2019****January 2013**

Japan Exchange Group is formed through the merger between TSE Group and OSE.

January
March
April
June
September

The infrastructure funds market is established.
Japan's Corporate Governance Code is introduced.
The cash equity trading system (arrowhead) is renewed.

February
June

New clearing system for listed derivatives goes live.
Japan's Corporate Governance Code revised.
JPX establishes Sustainability Committee.

July

Agreement reached on mutual cooperation with the London Stock Exchange Group in sustainability-related fields.

September

Calculation and publication of S&P/JPX Carbon Efficient Index begins.

October

Domestic stock trading units standardized to 100 shares.

Cooperation agreement signed with Shanghai Stock Exchange to promote ETF listings.

JPX declares support for the Task Force on Climate-related Financial Disclosures (TCFD).

January
July
December

Calculation and publication of S&P/TOPIX 150 environmental indices begins.
Basic agreements on collaboration are concluded with regional financial institutions for developing regional economies.
JPX joins the UN's Sustainable Stock Exchanges initiative.

March
April
July
September

Trading begins on the Yangon Stock Exchange, which was established through the support of JPX.

Calculation and publication of JPX/S&P CAPEX & Human Capital Index begins.

The derivatives trading system (J-GATE) is renewed.

Provision of the J-GATE derivatives trading system to Tokyo Commodity Exchange begins.

July
October

OSE cash equity market is integrated into TSE.
JSCC and Japan Government Bond Clearing Corporation are merged.

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FY2018 Financial and Non-Financial Highlights

Operating Revenue

JPY **121.1** billion



Operating Expenses

JPY **54.1** billion



Net Income

JPY **49.0** billion

Note: Net income attributable to owners of the parent company



ROE

17.6%

Note: Return on equity attributable to owners of the parent company



EPS

JPY **91.58**

Note: Basic earnings per share



Annual Dividend per Share

JPY **70**



Average Daily Trading Value for Cash Equities

JPY **3.3** trillion



Number of IPOs on Tokyo Stock Exchange

103



Average Daily Trading Volume for Derivatives

1.49 million contracts



Proportion of Outside Directors

64%



Employees' Average Years of Service

Male **16.1**
Female **19.9**



Financial and Economic Lectures

Provided to **46,000** people





2. Strategies for Creating Value

JPX's mission is to contribute to the realization of an affluent society by promoting sustainable development of the market. In order to carry out this mission, we are working to create value by evolving into an exchange where anyone can trade any product in a secure and easy way. To this end, we are further cooperating with stakeholders and entering into new partnerships.

2. Strategies for Creating Value

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Message from the CEO



August 2019
Director & Representative Executive Officer,
Group CEO
Japan Exchange Group, Inc.

A handwritten signature in black ink, appearing to read "Akira Amari".

Introduction

JPX's mission, as stated in our Corporate Philosophy, is to "contribute to the realization of an affluent society by promoting the sustainable development of the market by ensuring our public nature and credibility, constructing the foundation of the market which is highly convenient, efficient, and transparent, and providing creative and attractive services." In the belief that our efforts help us attract the support and confidence of investors and market users and reap the rewards in the form of profits and in our capacity as the provider of Japan's core

market infrastructure, we recognize the provision of stable market operation on an ongoing basis as the most important aspect of that mission.

Our Corporate Philosophy expresses the goals and values that guide our business activities and underpins our management policies and decisions. All JPX officers and employees constantly bear this philosophy in mind in the performance of their day-to-day tasks.

Looking Back at FY2018: 2nd Medium-Term Management Plan

In our medium- to long-term vision, we aim to realize a well-balanced business portfolio that does not rely excessively on Japanese stock market conditions. To achieve this, JPX focused on four core initiatives under its 2nd Medium-Term Management Plan: (1) satisfying diverse investor needs and encouraging medium- to long-term asset building; (2) supporting listed companies in enhancing their corporate value, including by enhancing the effectiveness of their corporate governance; (3) reinforcing market infrastructure, such as by strengthening business continuity planning (BCP) and shortening the Japanese government bond (JGB) settlement cycle; and (4) creating new fields of exchange business, such as by promoting the utilization of fintech.

With regard to the first core initiative, "encouraging medium- to long-term asset building," we made progress in efforts such as the market making incentive scheme for the development of the ETF market and successfully developed new indices, such as an index that was selected by the Government Pension Investment Fund (GPIF) as one of its Global Environmental Stock Indices. In the case of the second core initiative, "enhancing listed companies' corporate value," we made efforts, ranging from the formal to the substantive, such as through

revisions to the Corporate Governance Code, to bring about more deep-rooted corporate governance. For the third core initiative, "reinforcing market infrastructure," in addition to successfully achieving a shortening of the JGB settlement cycle to T+1, we made significant progress in enhancing the backup capabilities of the Tokyo and Osaka bases and believe that further improvements have been made in terms of the reliability of the Japanese market. Lastly, with regard to the fourth core initiative, "entering new fields of exchange business," we are conducting PoC testing of blockchain technology in a consortium with a wide range of participants from the finance and securities industries, and are advancing studies into the practical application of new technologies. As a result, JPX has made significant progress in transforming into an entity that is not heavily reliant on the market conditions in Japan and, with regard to net income, continued on from the previous fiscal year by also achieving our target for the final year of the Plan. Furthermore, on March 28, 2019, in a move cited under the 2nd Medium-Term Management Plan as one of the important issues toward the realization of a comprehensive exchange, we reached a basic agreement on a business combination with Tokyo Commodity Exchange.

Review of 2nd Medium-Term Management Plan (2016-2018)

- The target for net income set for the last year of the plan (FY2018) was achieved in FY2018, and also ahead of schedule in FY2017.
- Made great progress in transforming into an entity not heavily reliant on financial market conditions in Japan, by expanding our ETF market and developing side businesses such as index and information services, co-location, and clearing of OTC JGBs.

	Term of 2nd Medium-Term Management Plan			Targets in the last fiscal year of 2nd MTMP
	FY2016	FY2017	FY2018	
Operating Revenue (JPY)	107.8 bil.	120.7 bil.	121.1 bil.	123.0 bil.
Net Income (JPY) (attributable to owners of the parent company)	42.1 bil.	50.4 bil.	49.0 bil.	48.0 bil.
ROE	16.4%	19.0%	17.6%	Approx. 17%

Main Achievements			
Asset building gained momentum	Corporate value of listed companies increased	Reinforced market infrastructure	Entered new fields of exchange business
<ul style="list-style-type: none"> • More ETF holders (+129,000) • New ETF market making incentive scheme • New global environmental indices 	<ul style="list-style-type: none"> • Revised corporate governance code • Yearly IPO count steady: averaging 91 over past 3 years • Expanded ETF product lineup 	<ul style="list-style-type: none"> • Shortened JGB settlement cycle (to T+1) • Enhanced backup capabilities in Tokyo and Osaka • Strengthened market surveillance based on HFT registration regime 	<ul style="list-style-type: none"> • Advanced PoC testing for utilization of Blockchain • Incorporated AI into market surveillance • Listed products related to sustainability

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Significance of “Sail to the Future. Keep the Market Secure.”

In Japan, it is expected that the impact of medium- to long-term demographic and economic factors, including the falling birth rate and aging population, budget deficits and the policy of monetary easing, will rapidly become apparent. The outlook globally points to heightened political risks surrounding fiscal policy trends in the U.S. and Europe and to U.S.-China economic issues, such as trade. Furthermore, the Japanese government has expressed its intention to tackle issues surrounding financial and capital markets in its growth strategies (Future Investment Strategy 2018). These include advancing corporate governance reforms, improving the quality of information disclosure for the purpose of constructive dialogue, and boosting medium- to long-term investment by advocating for more disclosure of ESG, climate-change-related, and other topical information. Another major issue raised is generating momentum in financial and capital markets such as by encouraging stable asset building for households, providing financial services compatible with an aging

society, realizing a comprehensive exchange, and shortening the stock settlement cycle to T+2.

In such an environment, and given that we recognize the provision of stable market operation on an ongoing basis as the most important aspect of our mission, in March 2019 we published the 3rd Medium-Term Management Plan (2019-2021) with the slogan of “Sail to the future. Keep the market secure.”

“Sail to the future.” makes reference to that fact that it will be extremely important for us to quickly adapt to or boldly confront increasingly rapid technological change and other changes in the market environment to continue fulfilling our responsibility to the market.

“Keep the market secure.” encapsulates JPX’s role as market infrastructure that provides investors with asset management opportunities and companies with opportunities to raise funds, and that also underpins society. With it, we express our intention to remain committed in the years to come to our original mission of providing a stable market that is secure and reliable.

3rd Medium-Term Management Plan (Published March 28, 2019)



Evolution into a “Total Smart Exchange”

As our medium- to long-term vision, JPX is aiming to evolve into a “total smart exchange,” an exchange that enables anyone to trade any product safely and easily, not only stocks and related products but also similar and peripheral fields, such as commodities.

From now on, through the steady implementation of the 3rd Medium-Term Management Plan, we will be moving into a phase designed to increase medium- to long-term growth, such as in terms of trading volumes that form the basis for revenue generation. It will, however, be essential to constantly keep in mind that JPX is subject to global competition. With regard to the enormous amounts of investment funds that are constantly being moved around the world, it will also remain important for JPX to continue to function as a pivotal trading venue in the Asia-Pacific region time zone. In that sense as well, we believe that the “total smart exchange” will be an essential policy for Japan to survive as one of the key markets in the world.

For the Realization of an Affluent Society

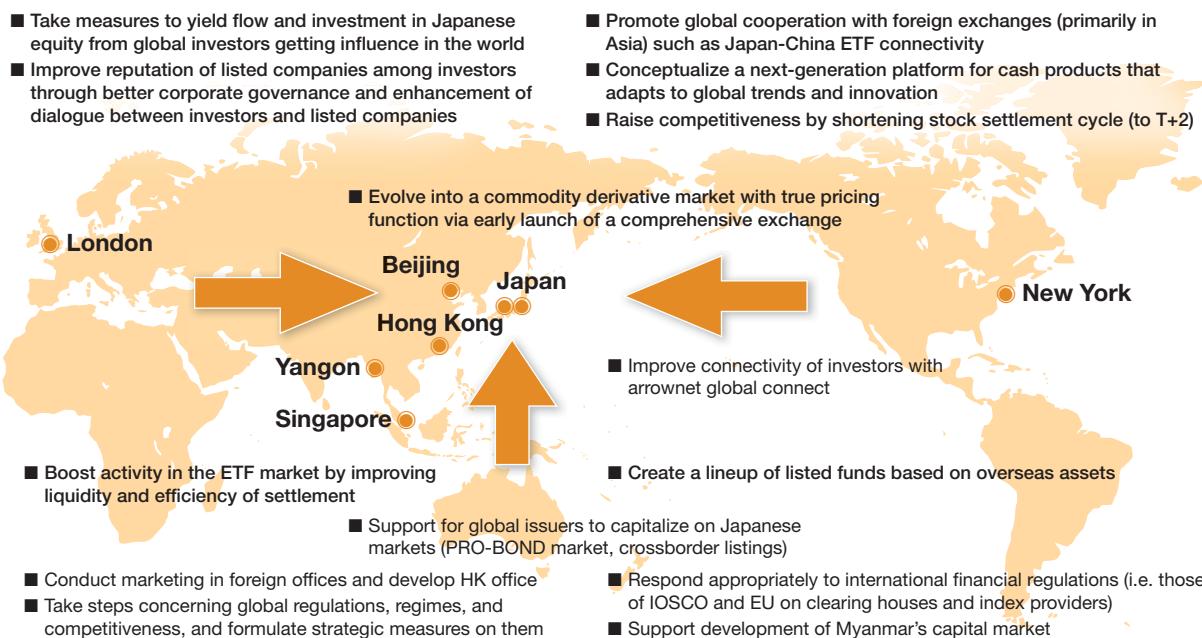
For JPX, fulfilling our core business of stable market operation is an important social responsibility. In view of our public nature and neutrality requirements for business content, we will pay full attention to the improvement of corporate governance based on compliance, management transparency, and accountability. On that basis, we will be making full use of the management resources of our core business to contribute widely to society through a raft of activities, such as financial economic education, international cooperation with overseas exchanges, and academic research.

As we serve as core infrastructure for financial and capital markets at the heart of the Japanese economy, JPX will strive to engage and gain the understanding of our domestic and global investors, listed companies, trading participants such as securities firms, as well as of regulators and the general public as we target the country's economic revitalization.

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

Initiatives in Global Strategy

Aim to continue being a leading market in the world as a pivotal trading venue in the APAC region, which contributes to global wealth accumulation through further stimulating capital circulation



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Financial Policies

Financial Targets under the 3rd Medium-Term Management Plan

JPX achieved its net income target for FY2018 of JPY 48.0 billion under the 2nd Medium-Term Management Plan, which covered the three-year period from FY2016 to FY2018. This reflects the significant strides made in transforming JPX into an entity not heavily reliant on stock market conditions in Japan, by expanding its ETF market and developing index and information services, co-location, JGB clearing, and other peripheral business segments.

In line with the slogan of the 3rd Medium-Term Management Plan, "Sail to the future. Keep the market

secure," JPX will work toward attaining operating revenue of JPY 130.0 billion, net income of JPY 50.0 billion, and an ROE of 15.0% or higher by FY2021, the final year of the plan. To this end, we will launch and develop a comprehensive exchange and diversify our data offerings as part of our efforts to steadily implement core strategies while investing in our systems and business continuity plan (BCP) to enhance the reliability of the Japanese market.

Capital Policy for Sustainable Development of the Market

JPX's fundamental capital policy is aimed at supporting the sustainable development and evolution of the market, by making ongoing investment while striking a balance between shareholder returns and ensuring financial resilience for stable market operations. Under this policy, we seek to achieve ROE of around 10% in the medium to long term regardless of market conditions.

Specifically, we set a dividend payout ratio of approximately 60% and will flexibly consider increasing

returns to shareholders as we examine future investments and other such factors as they arise. For FY2018, the total dividend payout per share was JPY 70. This amount comprises an ordinary dividend of JPY 55 based on the aforementioned payout ratio and an additional special dividend of JPY 15 on account of achieving the profit target under the 2nd Medium-Term Management Plan, as well as to commemorate 140 years of exchanges in Japan.

Financial Targets and Capital Policy

Financial targets in the last fiscal year		Capital policy
Operating Revenue	JPY 130.0 bil.	Support the sustainable development and evolution of the market by making constant investment while keeping a balance between shareholder returns and financial resilience for stable market operations
Net Income (attributable to owners of the parent company)	JPY 50.0 bil.	Maintain ROE of 10% in the medium-to long-term, that is above capital cost, regardless of market conditions
ROE	15.0%+	Return to shareholders
Assumptions		
Average Daily Value for cash products	JPY 3.45 tril.	<ul style="list-style-type: none">Dividend payout ratio of approx. 60%Flexibly implement further shareholder returns in consideration of future investments, etc.
Annual Trading Volume for derivative products	400 mil. contracts	
* Deviation from the assumptions may emerge depending on external factors such as market condition		

IT Master Plan

IT Strategy as the Source of Our Competitiveness

Exchanges provide venues to gather large numbers of sellers and buyers. Today, those venues are provided on systems, and the quality of these systems and their capabilities have a direct bearing on exchange competitiveness.

In order to meet the needs of increasingly sophisticated and complex market users and become their market of choice, exchanges must constantly improve systems infrastructure to enhance convenience for market users. At the same time, the most important

mission for exchanges, as core financial infrastructure, must be to provide sound venues underpinned by stable systems operations.

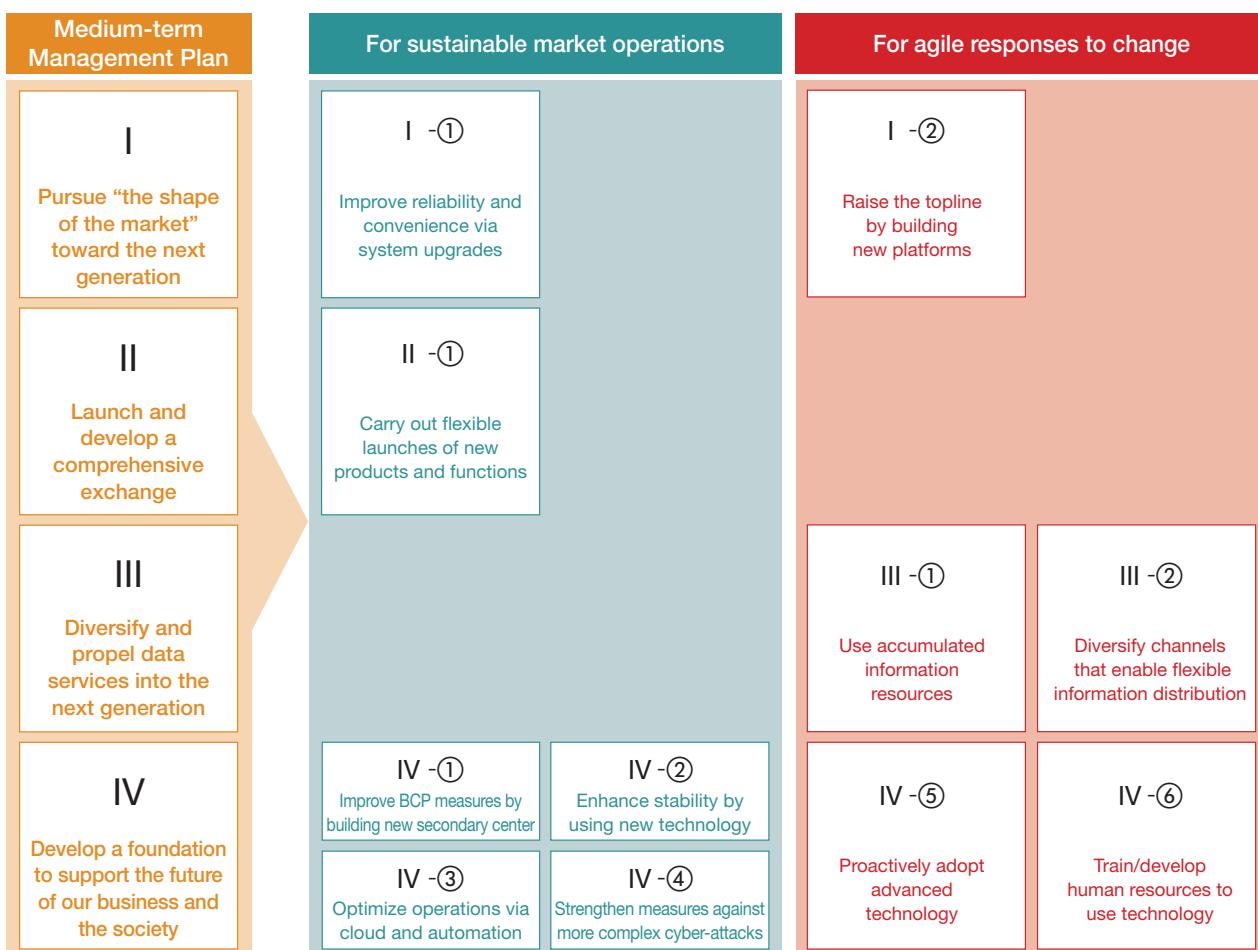
As such, JPX formulated the IT Master Plan in line with the Medium-Term Management Plan to pursue specific IT initiatives that balance two approaches – steadily implementing initiatives focused on system reliability, efficiency and availability, and maintaining the agility required to respond to drastic changes in the external environment and technological diversification.

Pushing the Limits and Leveraging Technology to Enhance Corporate Value

In our upgrades and other system initiatives, JPX has continuously pushed the limits and worked diligently to create a highly skilled, positively charged organization. We will continue to boldly take on new challenges as we work to enhance the corporate value of JPX by

positioning IT as a source of and means to sharpen our competitive edge. We will employ the latest in rapidly evolving technologies to the greatest extent possible so as to construct and provide highly reliable and convenient market infrastructure and services.

Specific Measures



2. Strategies for Creating Value

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Core Strategy



Pursue “the shape of the market”
toward the next generation



Raise global competitiveness by pursuing “the shape of the market” toward the next generation while working on enhancing the appeal of the Japanese market in various ways, from reviewing TSE's market structure and improving corporate governance to moving to T+2 stock settlement cycle.

Initiatives

1	Build market platforms that adapt to market needs and external changes	<ul style="list-style-type: none">◆ Replace the platform for cash product trading (arrowhead) and systems for off-auction trading and index calculation◆ Develop a next-generation derivative platform that enables timely launches of new products◆ Conceptualize a next-generation platform for cash products that meets diverse trading needs and adapts to global trends and innovation
2	Develop TSE's market structure & enhance corporate governance at listed companies for a more appealing Japanese market	Aiming to enhance the investment appeal of the Japanese market and encourage listed companies to raise corporate value: <ul style="list-style-type: none">◆ Review TSE's market structure◆ Further enhance substantial aspects of corporate governance at listed companies and cultivate an environment conducive to more dialogue between investors and listed companies
3	Shorten stock settlement cycle & improve clearing services for better global competitiveness	<ul style="list-style-type: none">◆ Shorten stock settlement cycle to T+2◆ Boost activity in the ETF market via introduction of creation/redemption services◆ Refine margin rules and framework for listed derivatives and increase the use of clearing services
4	Create new communication channels with retail investors & enhance support for global investors	<ul style="list-style-type: none">◆ Improve marketing to attract more flow from retail investors and develop a new system for trading participants◆ Improve marketing and strengthen ties to attract more flow from global investors◆ Revamp outreach to global investors to attract more investment in Japanese equity
5	Improve rules for ETFs and promote them to boost activity & take steps for a market where anyone can invest with ease	<ul style="list-style-type: none">◆ Boost activity in the ETF market via updates of its Market Making Incentive Scheme and investor-directed promotion◆ Take steps for a market that facilitates trading for a wide-range of investors◆ Boost trading of Flexible Options and such non-flagship products as TSE Mothers Index Futures
6	Expand lineup of high-quality listed companies and products with high investment appeal	<ul style="list-style-type: none">◆ Attract a greater variety of enterprises to the market (focus on: startups at universities, regional banks as part of cooperative efforts, cross-border listings, and PRO-Market)◆ Create a greater variety of investible products (focus on: diversifying ETF pool and developing PRO-BOND, REIT, and infrastructure funds markets)

Primary Targets on Core Strategies

Complete trading platforms for cash products in FY2019 and derivative products in FY2021	Meet system requirements for trading platforms	Shorten stock settlement cycle to T+2 in FY2019	Approx. 100 IPOs/year 
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Launch and develop a comprehensive exchange

Evolve into a leading global derivatives market via early integration with Tokyo Commodity Exchange, generating a more vibrant market in Japan.

Initiatives

1	Expand into and develop a commodity derivatives market	<ul style="list-style-type: none"> ◆ Realize early integration with Tokyo Commodity Exchange ◆ Take steps to attract global/retail investors after expansion into a commodity derivatives market
2	Adopt measures for clearing commodity derivatives to raise reliability	<ul style="list-style-type: none"> ◆ Build a commodity clearing scheme, develop and maintain systems pursuant to commodity clearing ◆ Integrate with Japan Commodity Clearing House (JCCH)
3	Build surveillance & examination systems tailored to become a comprehensive exchange	<ul style="list-style-type: none"> ◆ Develop market surveillance and examination systems suitable for a comprehensive exchange ◆ Offer support to potential trading participants, new partners, and stakeholders in establishing management systems
↗	Realizing our medium- to long-term vision	<ul style="list-style-type: none"> ◆ Drive initiatives in such areas as relationship building and R&D to evolve into an exchange where anyone can trade any product

Primary Targets on Core Strategies

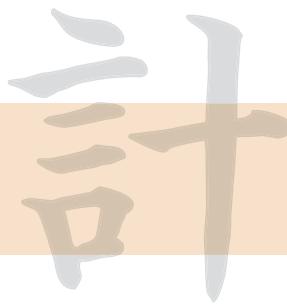
Achieve early integration with Total Commodity Exchange 	Achieve integration of clearing houses 	Raise trading volume by creating synergy 
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2. Strategies for Creating Value

> Message from the CEO | Financial Policies | IT Master Plan | **Core Strategy** | Special Feature 1 | JPX Initiatives: Targeting Value Creation for Listed Companies
Special Feature 2 | Self-regulatory Functions Required for JPX Value Creation



Diversify and propel data services into the next generation



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

Initiatives

- | | |
|---|---|
| 1 | Create new information services by utilizing innovation and partnerships <ul style="list-style-type: none">◆ Create new services by setting up an open and innovative framework that enables startups to capitalize on data/information◆ Research investor needs and tailor data/information services to meet those needs |
| 2 | Build a next-generation system for disseminating information that employs API* & cloud <ul style="list-style-type: none">◆ Build a next-generation system for disseminating information that incorporates the use of API and cloud computing◆ Tap into new user segments with diverse services generated from next-generation systems |
| 3 | Develop indices & enhance operations in response to needs & external changes <ul style="list-style-type: none">◆ Strengthen ties and partnerships and leverage TSE brand in developing indices◆ Develop indices that reflect review of TSE's market structure and new investment needs◆ Raise robustness and efficiency of operation of an index calculation system by improving IT infrastructure for calculating indices and for managing basic data |
| ↗ | Realizing our medium- to long-term vision <ul style="list-style-type: none">◆ Drive initiatives in such areas as relationship building and R&D to evolve into an exchange where anyone can trade in a secure and easy way |

* API = Application Programming Interface.

Primary Targets on Core Strategies



IV


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

Keep our market robust as a secure and reliable infrastructure through means such as developing and managing secure IT systems and enforcing appropriate self-regulations. Contribute to a sustainable society by raising financial literacy in an aged society, advocating for ESG investment.

Initiatives

1	Develop and manage IT systems that are secure and reliable for users	* Details in "IT Master Plan" ➤ P.17
2	Set up a backup center to improve reliability of the market in Japan	<ul style="list-style-type: none"> ◆ Launch a backup center and develop backup systems smoothly ◆ Improve stability of market operations with higher quality BCP
3	Bolster system bases & develop highly-skilled personnel to turn IT into our source of competitiveness	<ul style="list-style-type: none"> ◆ Promote the use of fintech in business ◆ Adopt the most advanced technologies ◆ Increase efficiency/sophistication of operations by replacing information systems and incorporating the latest technologies ◆ Educate/train human resources on digitalization, etc.
4	Exercise optimal self-regulation that adapts to external changes	<ul style="list-style-type: none"> ◆ Conduct listing examinations and monitor listed company compliance in ways that reflect external changes (such as a review of TSE's market structure, new business models, approach to corporate governance) ◆ Promote measures to enhance self-awareness at listed companies ◆ Develop a new surveillance system employing advanced methods ◆ Support trading participants in improving their compliance ◆ Make relevant inspections to adapt to external changes, e.g. on management systems to deal with irregular trading
5	Support asset building for aged population & raise financial literacy among less-experienced investors	<ul style="list-style-type: none"> ◆ Advance programs to increase retail investors (especially those with minimal interest in investment or no investment experience) ◆ Drive efforts pursuant to educate on economics/finance and raise financial literacy in the age of the 100-year lifespan ◆ Promote education on investment in derivatives for asset-building
6	Promulgate ESG investment and promote sustainability to contribute to SDGs (Sustainable Development Goals*)	<ul style="list-style-type: none"> ◆ Instill TCFD**guidance and ESG investment, as well as deliver ESG training programs directed at listed companies and investors ◆ Offer support in developing and promulgating ESG-related products (indices, ETFs, Green/Social bonds, infrastructure funds)
7	Strengthen business foundations	<ul style="list-style-type: none"> ◆ Develop human resources and advance work style reforms ◆ Research global regulations, regimes, and competitiveness and take strategic steps ◆ Improve R&D and information dissemination functions ◆ Strengthen corporate communications, PR, and IR ◆ Promote cooperation with foreign exchanges and support YSX ◆ Make operations efficient and sophisticated

* A collection of 17 global goals set by the UNGA for the year of 2030

** Task Force on Climate-related Financial Disclosures set by Financial Stability Board

Primary Targets on Core Strategies

Launch Kansai backup center in phases starting in FY2021	Build industry-shared Blockchain/DLT* infrastructure in FY2021	Contribute to 10% yearly increase in installment type NISA & iDeCo users through raising financial literacy
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* DLT = Distributed Ledger Technology



2. Strategies for Creating Value

> Message from the CEO | Financial Policies | IT Master Plan | Core Strategy | Special Feature 1 JPX Initiatives: Targeting Value Creation for Listed Companies
Special Feature 2 Self-regulatory Functions Required for JPX Value Creation

Special Feature 1

JPX Initiatives: Targeting Value Creation for Listed Companies

JPX's vision of sustainable market development and the creation of an affluent society relies on two driving forces: listed companies creating medium- to long-term corporate value, and domestic and foreign investors participating actively and continuously in the market, making diverse investment decisions. From this viewpoint, JPX Group member Tokyo Stock Exchange is working to build a highly convenient, efficient and transparent market infrastructure, and to develop an environment which can support Japanese listed companies in their efforts to improve corporate value. In FY2018, in addition to revising the Corporate Governance Code, TSE started to examine the ideal future structure of the cash equity market.

Enhancing the Effectiveness of Corporate Governance

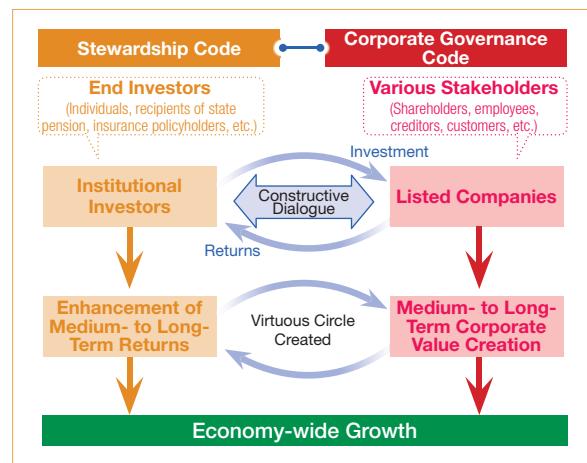
For many years, TSE has been endeavoring to enhance corporate governance in Japanese listed companies, from the perspective of creating an environment in which diverse investors can invest in stocks with confidence, while such an environment is created through appropriate consideration of the rights of minority shareholders who acquire shares through the market.

Since JPX formulated the Corporate Governance Code (CG Code) jointly with the Financial Services Agency (FSA) in 2015, not only do 91.3% of 1st Section listed companies now have more than one independent outside director, we have seen a rise in the proportion of independent outside directors on boards every year so far, along with many other significant changes. However, for such initiatives aimed at enhancing the management supervisory function of listed companies to translate to successful medium- to long-term corporate value creation, we need to continue developing an environment that can support this.

To this end, TSE revised the CG Code in June 2018, taking into account the situation review and recommendations from the "Council of Experts Concerning the Follow-up of Japan's Stewardship Code and Japan's Corporate Governance Code" established jointly by TSE and the FSA. Listed companies were then given until December of the same year to disclose their "comply or explain" statements based on the revised CG

Code. The principles added or clarified under this revision are: (1) management with an awareness of capital cost; (2) the use of independent nomination/compensation advisory committees and ensuring board diversity; and (3) reduction of strategic cross-shareholdings based on assessments of capital cost. Each of these principles is expected to enhance the framework's effectiveness in supporting medium- to long-term corporate value creation at listed companies. TSE will continue to follow up on the progress of efforts on the revised CG Code, and will also continue to work on the necessary development of the market environment.

Constructive Dialogue between Companies and Investors



Cash Equity Market Structure Review

TSE has actively contributed to the sustainable growth of Japan's industry and economy through the smooth supply of risk money in the cash equity market, and from this perspective, has provided listing opportunities to a wide range of companies. To create an environment conducive to investment, the market is divided into segments according to the characteristics of those companies.

In the cash equity market aimed at all investors, we currently have four market segments in place: First Section, Second Section, Mothers, and JASDAQ. These market segments were created when the Tokyo and Osaka stock exchanges combined in January 2013, and integrated their cash equity markets at TSE in July of the same year. When creating standards for each market segment, to avoid any confusion among listed companies and companies preparing to list as well as their shareholders and investors, we took the decision to maintain in principle the listing rules of the two exchanges as they were.

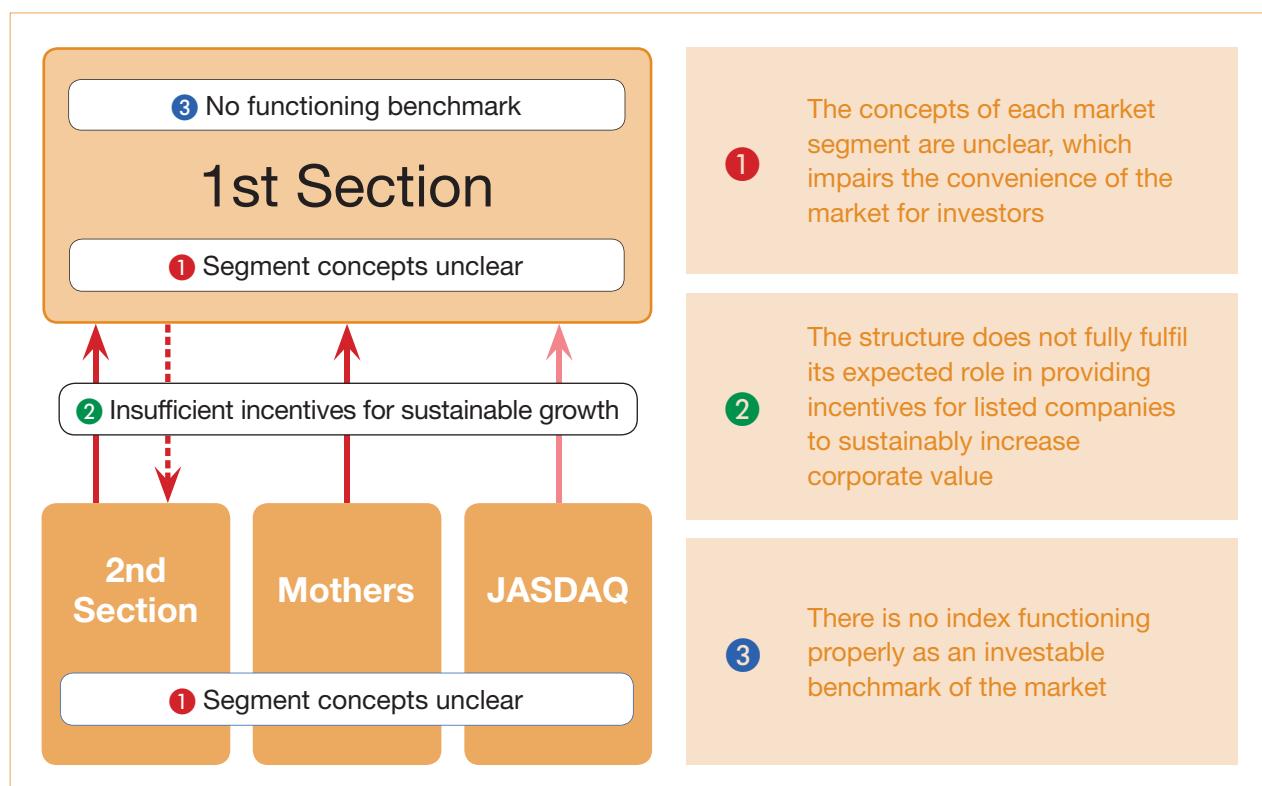
However, from the perspective of TSE's role in contributing to the sustainable growth of the Japanese economy through the management of the cash equity market, TSE needs to continue to provide listing opportunities for a wide range of companies, and

incentivize medium- to long-term corporate value creation after listing. To achieve this, and gain greater support from diverse investors at home and abroad, there is a need to take appropriate measures to solve problems in the market structure.

With this in mind, in the fall of 2018, TSE began to review concrete options for how the cash equity market should be structured in the future. In December 2018, TSE announced the main points that had arisen from the review, carried out a broad public consultation and conducted interviews. In March 2019, the main issues and areas for improvement based on the comments received were collated and published along with said comments in the "Comments Received from Market Participants in Response to the Review of the TSE Cash Equity Market Structure".

Discussions on the cash equity market structure are now being conducted by the FSA's Financial System Council under the Working Group on Market Structure. Taking these into account, TSE will continue to endeavor to create listing rules and a cash equity market structure which fits with changes in the market environment for companies and investors.

Current Issues Regarding TSE Cash Equity Market Structure



Special Feature 2

Self-regulatory Functions Required for JPX Value Creation

In ensuring that Tokyo Stock Exchange and Osaka Exchange continue to be trusted by everyone and remain places where trading can take place safely and securely, Japan Exchange Regulation (JPX-R) plays an important role as what could be termed the quality control center of the exchanges. Its roles include listing examinations, which involve examining the eligibility of companies wishing to list; listed company compliance, the checking of information disclosure and the business behavior of listed companies; market surveillance and compliance, monitoring the market for unfair trading; and trading participants' examination and inspection to ensure the credibility of trading participants' operations.

In recent years, the environment surrounding market transactions has been changing very rapidly, and the speed of that change has been increasing year by year. We aim to ensure market fairness and reliability by applying an appropriate self-regulatory function to everyday capital market activity.

Application of Artificial Intelligence to Market Surveillance and Compliance Operations

In order to address the increase in high-frequency trading (HFT) in equities and other asset classes, and the consequent drastic increase in the number of trading orders, JPX-R had to improve the market surveillance function to protect the fairness and reliability of the markets. From this viewpoint, we introduced artificial intelligence (AI) technology to the cash equity market surveillance and compliance operations in March 2018. Since then, we have been working to improve the accuracy of AI through, for example, ongoing

verifications of the calculation results obtained by AI and the introduction of new models.

The AI we use is taught the knowledge of surveillance personnel for preliminary evaluations of unnatural trading execution patterns. By utilizing this AI in market surveillance and compliance operations, surveillance personnel can expedite the preliminary investigation process, and this allows them to focus on detailed, full-scale investigations. In this way, AI has enabled more detailed and in-depth market surveillance.

Response to Introduction of Registration System for High-Frequency Traders

Recently, in response to the increasing influence of HFT in equities and other asset classes, the revision of the Financial Instruments and Exchange Law in 2018 newly introduced a registration system for HFT practitioners. In response to this, we added a provision that requires HFT practitioners to submit some necessary documents and explain the details of a trade when considered necessary for market surveillance and compliance. In addition, we carried out functional improvements to the market surveillance and compliance system to apply the HFT strategy trade flags

and other functions that are now required for disclosure of HFT activity. This has enabled us to identify investors who engage in HFT activities and to ascertain the status of their trading more quickly and efficiently.

In addition, as well as adding "Management Systems pertaining to High-Frequency Trading" to our focus areas for inspections from FY2018, we are also conducting confirmations of the maintenance of management systems, etc. at trading participants who receive HFT client orders, and at trading participants who engage in HFT on their own account.

Identifying Problems on the Front Line of Trading Participants' Trade Management

To ensure the fairness and reliability of the market, it is essential for trading participants, acting as gatekeepers of access to the market, to carry out highly effective trading management.

JPX-R visited many trading participants individually to exchange views on the current situation on the front line of trade management. We then summarized the common issues that were brought up, and communicated these to all trading participants, with the purpose of having each company confirm the condition of their trading management systems.

Activities Designed to Spread and Embed "Principles for Preventing Corporate Scandals"

Following the many scandals that have come to light at listed companies in recent years, such as fraudulent accounting and the falsification of product performance, to ensure the credibility of the capital markets, we formulated behavioral standards called the "Principles for Preventing Corporate Scandals" in March 2018. We hope that this will enhance the effectiveness of preventative measures against scandals at listed companies, and circumvent the loss of corporate value.

To support the spread of the Principles and the specific efforts made at listed companies, we spoke at

In addition, to respond to issues of this nature, we are providing information and know-how which can help trading participants with trading management. In April 2019 we held a course at the Compliance Learning Center (COMLEC) geared toward those responsible for running trading management systems at trading participants, with the purpose of supporting trading participants' efforts toward human resource development.

external seminars and contributed articles to specialist journals, while also holding seminars for executives who are in a position to encourage anti-corruption efforts. In addition, we have added the content of the Principles to the e-learning content that executives of companies intending to list are required to study prior to listing.

It is hoped that these efforts will raise awareness of the need to prevent scandals at listed companies, and that efforts to prevent misconduct will be introduced and improved.

■ Message from the President

As part of JPX Group, Japan Exchange Regulation (JPX-R) strives on a daily basis to maintain and control the quality of the exchange market, which in turn guarantees the market's fairness and reliability. This includes maintaining the eligibility of listed companies, preventing unfair trading in the market, and maintaining the soundness of trading participants such as securities companies. Positioned as a fundamental function of the market operator, JPX-R plays an important role in creating corporate value for JPX.

To properly carry out its self-regulatory operations, it is essential that JPX-R has an organizational system that can maintain a high degree of autonomy and can be managed and administered from a neutral standpoint. Also needed are high levels of expertise to fully understand the functions and characteristics of the market so that appropriate responses can be made to events that occur on a daily basis. It is also crucial to exert appropriate self-regulatory functions in line with environmental changes, amid the progress being made in the market structure reform, the emergence of new business models, and corporate governance reform.

Under these circumstances, despite being part of JPX Group, JPX-R also specializes in self-regulation operations as a separate entity from JPX the exchange operator. The Board of Governors, the highest decision-making body in JPX-R's business operations, is composed of a majority of Outside



Kiyoshi Hosomizo
President, Japan Exchange Regulation

Governors, and this independent governance system functions in decision making. We also listen to a wide range of opinions from outside experts: as an advisory body to the Board of Governors, we have established a Disciplinary Committee to deliberate on the details of disciplinary action against trading participants.

Through the establishment of such systems, we demonstrate a high level of expertise while carrying out highly effective self-regulatory operations from a neutral position that is independent from the exchange.



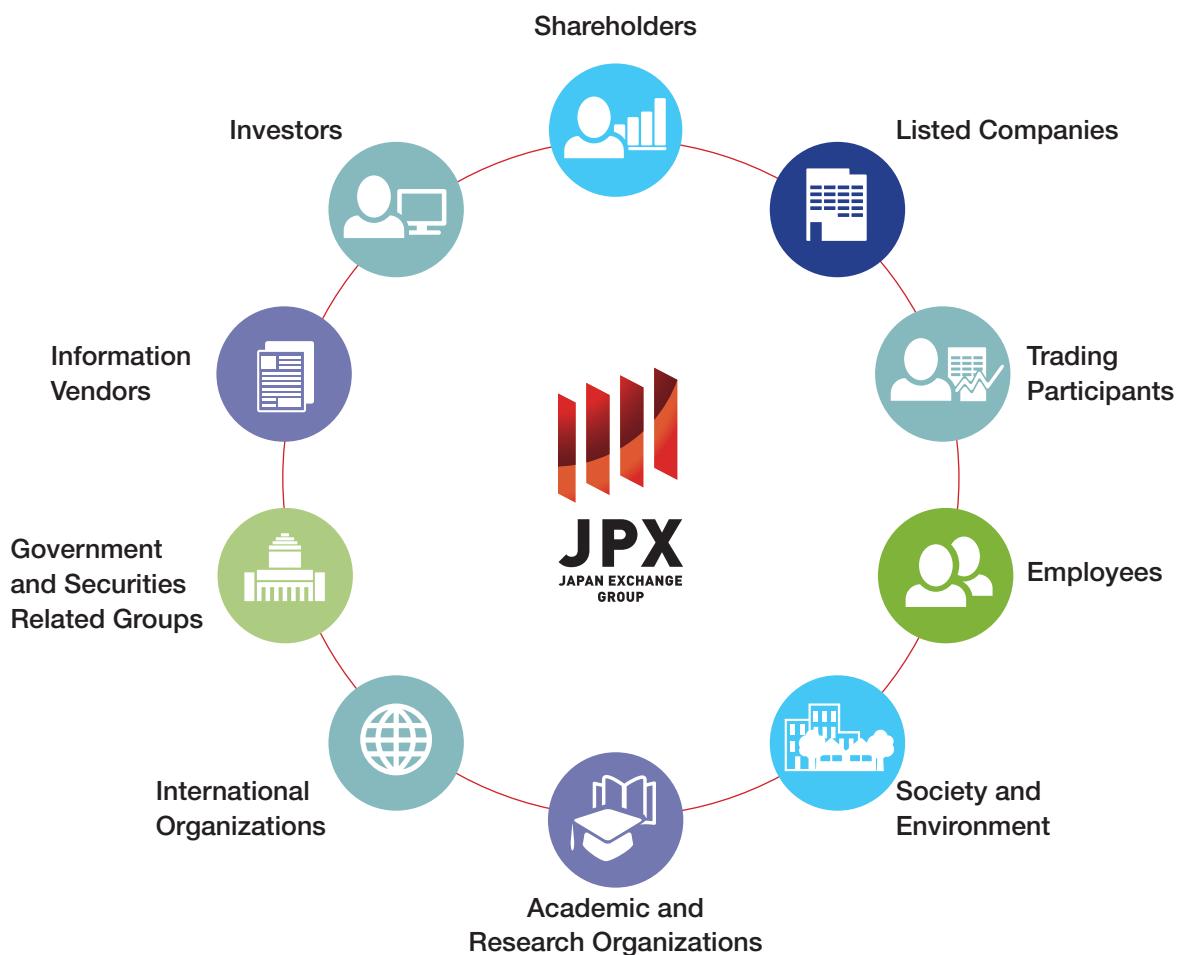
3. The Foundations of Value Creation

The foundations of JPX's corporate value creation lie in two places: establishing appropriate corporate governance, and, through dialogue, meeting the expectations of a wide range of stakeholders such as listed companies, trading participants such as securities companies, investors and other related organizations. While continuously striving to improve corporate governance so that it functions more effectively, we proactively seek dialogues with each stakeholder, and engage in various activities in our role as a member of society, beginning with the operation of our market.

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.



Corporate Governance

JPX is committed to developing its corporate governance system in the most suitable way for fulfilling its social mission as the core infrastructure of the Japanese market.

Fundamental Views

In order to conduct 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 appropriately developing its corporate governance system in light of the intent of the individual principles of Japan's Corporate Governance Code.

Corporate Philosophy and Social Mission

JPX Group operates markets that are a public asset and fulfills its social mission by pursuing the 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 investors and market users, and that maintaining and enhancing such support and confidence will build the foundations for sustainable development of its markets.

Enhanced Corporate Value

In pursuing the sustainable development of its markets, JPX must continue to accommodate the diverse needs of shareholders and other stakeholders, and through this JPX will enhance its corporate value over the medium- to long-term.

Effective Corporate Governance

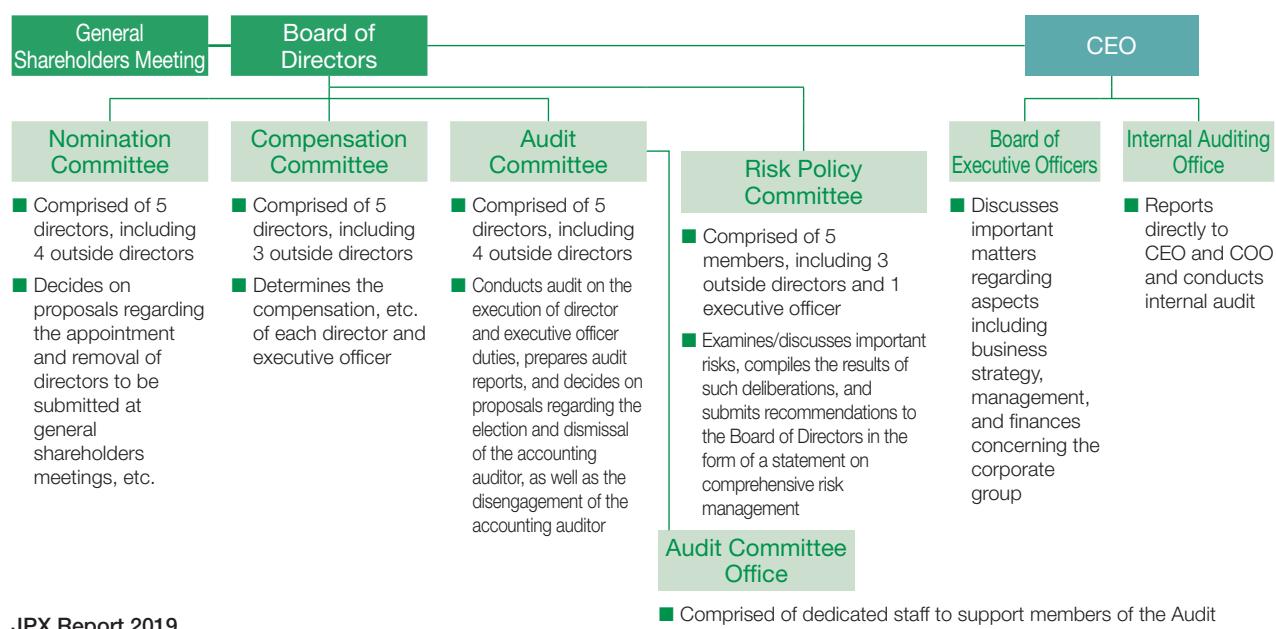
JPX strives to constantly improve its corporate governance system to further facilitate effective and useful systems, so as to support the sustainable development of its markets.

Corporate Governance System

JPX clearly segregates the management oversight and business execution functions and adopts the structure of "a company with three committees" (nomination, audit

and compensation) "to strengthen oversight and raise the transparency of management.

Corporate Governance System Diagram



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 outside directors, constituting a board majority, and an independent outside director as non-executive Chairperson.

The breakdown of the nine independent outside directors is as follows: three corporate managers, 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 in both 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 certified public accountant, are independent outside directors. JPX also has an Audit Committee Office to assist the committee members in the performance of their duties.

Board of Directors

Name	Position and Responsibilities	Areas of Expertise of Independent Outside Directors					Committee Memberships				
		Corporate management	Financial audit	Law	Research/Government Agencies	Technology	Nomination	Compensation	Audit	Independent outside directors	Risk policy
Hiroki Tsuda	Independent Outside Director Chairperson of the Board of Directors				●						
Akira Kiyota	Director and Representative Executive Officer, Group CEO	—	—	—	—	—	●	●			●
Koichiro Miyahara	Director and Executive Officer President & CEO, Tokyo Stock Exchange, Inc.	—	—	—	—	—		●			
Hiromi Yamaji	Director and Executive Officer President & CEO, Osaka Exchange, Inc.	—	—	—	—	—					
Hironaga Miyama	Director and Executive Officer President & CEO, Japan Securities Clearing Corporation	—	—	—	—	—					
Christina Ahmadjian	Independent Outside Director			●			●	●	●	●	
Nobuhiro Endo	Independent Outside Director	●			●		●			●	
Hitoshi Ogita	Independent Outside Director	●				○			○		
Hideaki Kubori	Independent Outside Director		●			●			●		○
Main Kohda	Independent Outside Director			●			●	●	●	●	
Eizo Kobayashi	Independent Outside Director	●				●	○		●		
Makoto Minoguchi	Director	—	—	—	—	—		●			
Kimitaka Mori	Independent Outside Director		●				●	●	●		
Tsuyoshi Yoneda	Independent Outside Director			●			○	●	●	●	

Note: "○" indicates the director is the chairperson of the committee.

Independent Outside Directors Committee

JPX has an Independent Outside Directors Committee as a corporate organ composed exclusively of independent outside directors to allow them to exchange information and form consensus among

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

Independent Outside Directors Committee

Objectives	For independent outside directors to exchange information and form consensus *The chairperson of the board, the 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 content of the discussions of the committee to the chairperson of the board, the CEO, and other members of management.

Risk Policy Committee

JPX has a Risk Policy Committee with the aim of further improving its corporate governance. The role of the committee, which consists mainly of outside directors, is to bring an outside perspective to risk management.

For further information on JPX's risk management systems, including information on the content of activities of the Risk Policy Committee, please refer to page 32.

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 Outside 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 the Company's Corporate Governance Report.

WEB [Corporate Governance Report](#)

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

Board Effectiveness Evaluation Cycle



Director and Executive Officer Remuneration and Factors for Determining Remuneration

Remuneration is comprised of (1) basic salary, (2) bonuses, and (3) JPX stock. 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 everyday 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) Annual incentive (bonus) An annual incentive (bonus) is paid to Executive Officers using net income (refers to net income attributable to owners of the parent company on the consolidated statement of income, hereinafter the same) as the indicator. Net income is used as the indicator for two major reasons: first, because it is a source of funds for dividends to shareholders and for investment aimed at corporate value creation, and second, because the bonus corresponds to each fiscal year, and it is therefore appropriate to base it on net income earned in the corresponding fiscal year. Specifically, the annual incentive primarily consists of an amount proportional to net income and an amount based on net income's rate of change from the preceding 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 creation 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) the Company'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.

With a view to the success of JPX Group's 3rd Medium-Term Management Plan, launched in FY2019, the Compensation Committee, which was convened on March 26 and April 19, 2019, has implemented a review of performance-linked remuneration for Executive Officers. Specifically, the committee's measures include integrating the annual incentive (bonus) linked to net income's rate of change from the preceding fiscal year into the amount that is proportional to net income. The new rules will apply from FY2019.

Compensation Paid to Directors and Executive Officers

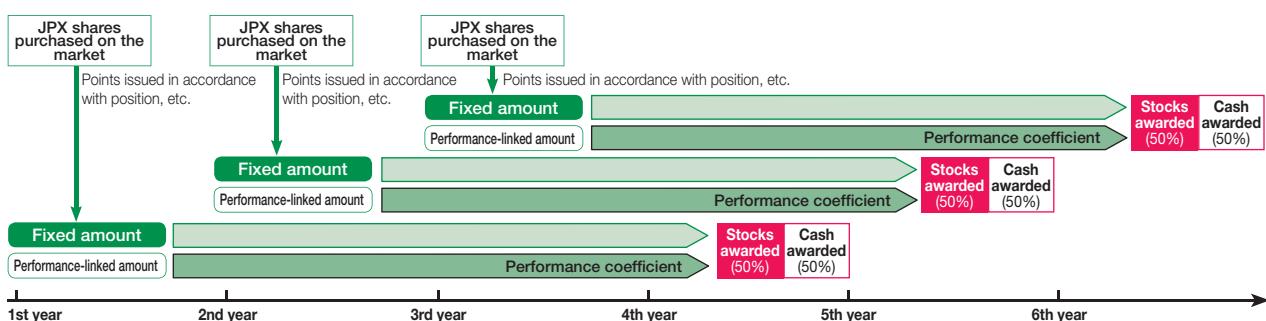
Classification	No. of Recipients	Total Amount Paid (JPY million)
Director (Outside)	10 (9)	164 (136)
Executive Officers	6	410

Notes: 1. Four Directors serving concurrently as Executive Officers do not receive compensation as Directors and are therefore not included in the number of recipients. Furthermore, one Executive Officer serving concurrently as Director of Tokyo Stock Exchange, Inc., one Executive Officer serving concurrently as Director of Osaka Exchange, Inc., and one Executive Officer serving concurrently as Director of Japan Securities Clearing Corporation do not receive compensation as Executive Officers and are therefore not included in the number of recipients.

2: The payment amounts above include the following:

(1) The amount of basic salary awarded in accordance with position and duties of each executive, in consideration of their everyday execution of duties and management participation, (2) An amount of JPY 128 million in annual incentive (bonus) for Executive Officers determined at the Compensation Committee meeting held on April 19, 2019, (3) An amount of JPY 95 million in medium- to long-term incentive (stock remuneration) for Executive Officers recorded as expenses in the fiscal year under review.

The Remuneration System



Risk Management

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

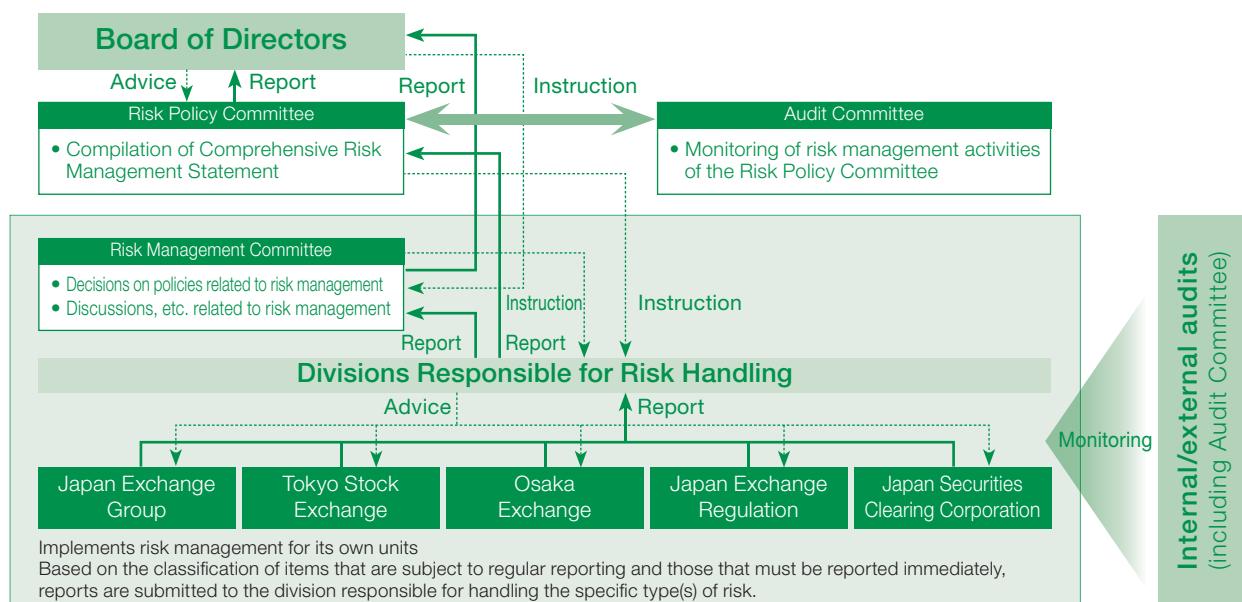
Risk Management Systems

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 the CEO, and Risk Management Committee, chaired by an outside director, 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 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.

Risk Management Systems



→ 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 errors in judgment on 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	Jeopardized 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 the necessary preventive measures. We also implement measures to ensure that we are able to respond flexibly in the event that risks materialize.

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 style="list-style-type: none"> Risk to business continuity resulting from damage to social infrastructure, including power grid failure, such as in the event of a wide-area disaster Risk that could affect market operations, etc. due to cyberattacks on JPX's systems 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
Risks that could affect JPX business performance and financial position	<ul style="list-style-type: none"> 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 Risk that the financial position of JPX will be impacted by a clearing participant default

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 the system capacity of JPX as a whole by utilizing projections to prepare for and prevent any system capacity issues that may arise.

Capacity management is not conducted by IT divisions alone, but also by the Capacity Management Committee with the CIO as chairperson. 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 management 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.

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.

To achieve said targets, in addition to its primary data center where operations normally take place, JPX also maintains a secondary (back-up) 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

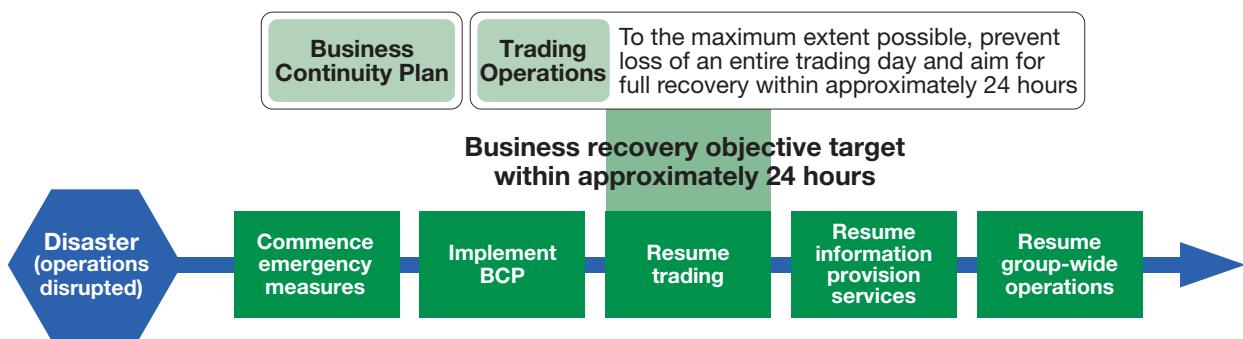
further enhance the reliability of the Japanese market, the decision was made to construct a new secondary (back-up) center in a remote area of the Kansai region, where in the case of a disaster such as a major large-scale earthquake in the Tokyo Metropolitan area, there would be little or no fear of damage to societal infrastructure causing a shortage of essential services such as electricity. The new secondary (back-up) 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.

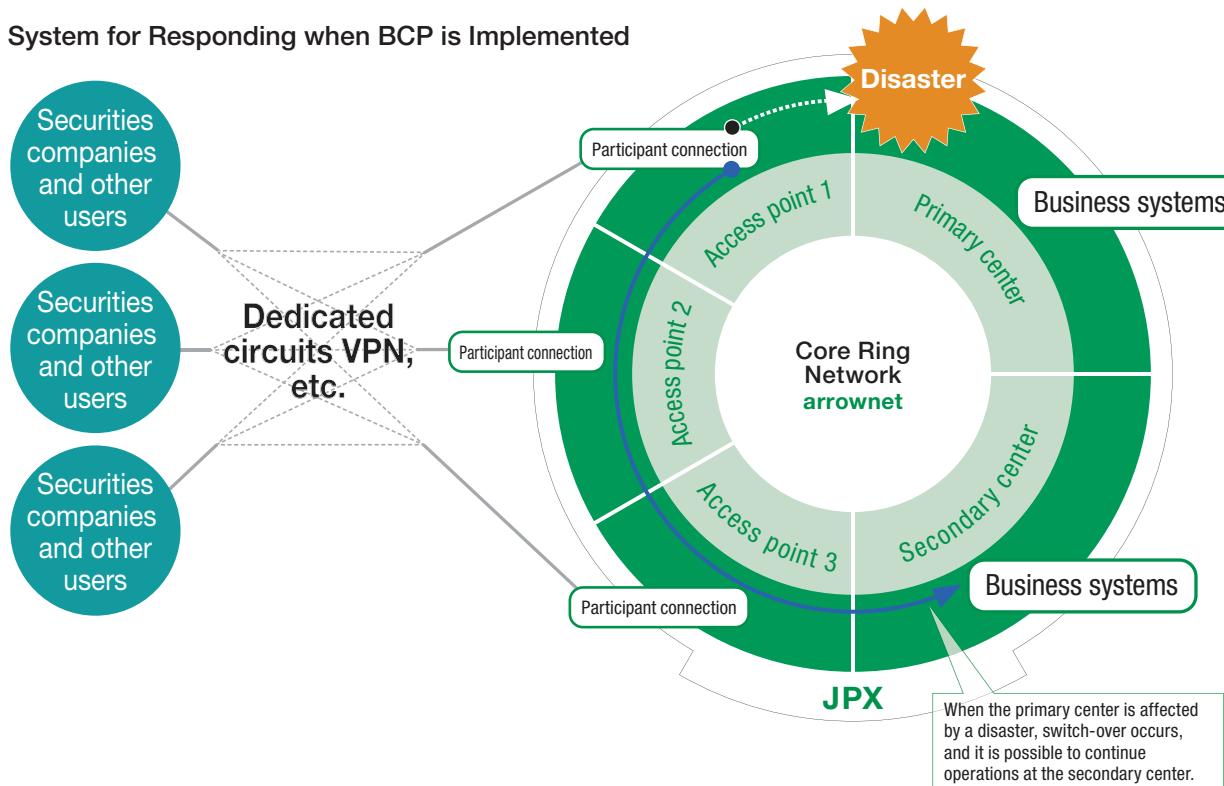
WEB [Business Continuity Plan](#)

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

Procedures for Restoring Trading Operations based on BCP after Disaster Occurs



System for Responding when BCP is Implemented



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, when trading participants that account for approximately 50% or more of securities trading can no longer participate in the market, the policy is to decide whether to suspend trading after comprehensively considering the impact on liquidity and fair and reliable price formation.

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 corporation, 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 CEO, periodically confirms and assesses the status of internal controls.

WEB 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.

WEB 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 CEO assumes responsibility for compliance and oversees all compliance-related matters. The 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.

Directors



Hiroki Tsuda

Independent Director,
Outside 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
Jul. 2004	Deputy Vice Minister
Jul. 2006	Director-General of the Budget Bureau
Jul. 2007	Administrative Vice Minister of Finance
Jul. 2008	Retired
Sep. 2008	Professor, Graduate School of Public Management, Waseda University
Jun. 2015	Outside Director of the Company (current position)
	Chairperson of the Board of Directors of the Company (current position)

No. of Company shares held:
1,400 shares



Akira Kiyota

Director and Representative Executive Officer, Group CEO

Member of the Nomination Committee	Member of the Compensation Committee
Member of the Risk Policy Committee	

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. (current position)

Significant Concurrent Position:
Director, Tokyo Stock Exchange, Inc.

No. of Company shares held:
50,193 shares



Koichiro Miyahara

Director and Executive Officer

Member of the Compensation Committee

Apr. 1979	Joined Electric Power Development Co., Ltd.
Apr. 1988	Joined Tokyo Stock Exchange
Jun. 2002	Director, General Administration Department, Tokyo Stock Exchange, Inc.
Jun. 2004	Director, Information Services Department
Jun. 2005	President, Representative Director, ICJ, Inc.
Dec. 2005	Executive Officer, Tokyo Stock Exchange, Inc.
Oct. 2007	Standing Governor, Tokyo Stock Exchange Regulation (currently Japan Exchange Regulation)
Jun. 2009	Senior Executive Officer, Tokyo Stock Exchange Group, Inc.

Jan. 2013	Senior Executive Officer of the Company Senior Executive Officer, Tokyo Stock Exchange, Inc.
Jun. 2014	Executive Vice President of the Company
Jun. 2015	Director of the Company (current position) President & CEO, Tokyo Stock Exchange, Inc. (current position)
Nov. 2015	Executive Officer of the Company (current position)

Significant Concurrent Position:
President & CEO, Tokyo Stock Exchange, Inc.

No. of Company shares held:
28,837 shares

3. The Foundations of Value Creation > Corporate Governance Initiatives

> Corporate Governance Risk Management Internal Control Systems and Compliance [Directors](#) Interview with Hiroki Tsuda, Chairperson of the Board of Directors



Hiromi Yamaji

Director and
Executive Officer

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.) (current position)
Nov. 2015 Executive Officer of the Company
(current position)
Significant Concurrent Position:
President & CEO, Osaka Exchange, Inc.
No. of Company shares held:
18,989 shares



Hironaga Miyama

Director and
Executive Officer

Apr. 1978 Joined Tokyo Stock Exchange
Nov. 2001 Director, Derivatives Department,
Tokyo Stock Exchange, Inc.
Jun. 2003 Director, Treasury Department
Jun. 2004 Director, Corporate Strategy
Department
Jun. 2005 Executive Officer
Jun. 2007 Senior Executive Officer
Jun. 2011 Managing Director
Jun. 2013 President & CEO, Japan Securities
Clearing Corporation (current position)
Apr. 2016 Executive Officer of the Company
(current position)
Jun. 2017 Director of the Company
(current position)

Significant Concurrent Position:
President & CEO,
Japan Securities Clearing Corporation
No. of Company shares held:
15,473 shares



Christina Ahmadjian

Independent Director,
Outside Director

Member of the
Compensation Committee

Member of the
Audit Committee

Jan. 1995 Assistant Professor, Columbia
Business School (Graduate School of
Business, 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. 2012 Outside Director, Mitsubishi Heavy
Industries, Ltd. (current position)
Jun. 2014 Outside Director of the Company
(current position)

Apr. 2018 Professor, Graduate School of
Business Administration, Hitotsubashi
University (current position)
Jun. 2018 Outside Director, Sumitomo Electric
Industries, Ltd. (current position)
Mar. 2019 Outside Director, Asahi Group Holdings,
Ltd. (current position)

Significant Positions:
Professor, Graduate School of Business
Administration, Hitotsubashi University
Outside Director, Mitsubishi Heavy Industries, Ltd.
Outside Director, Sumitomo Electric Industries, Ltd.
Outside Director, Asahi Group Holdings, Ltd.

No. of Company shares held:
1,400 shares



Nobuhiro Endo

Independent Director,
Outside Director

Member of the
Nomination Committee

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	Outside Director, 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) Outside Director, Sumitomo Dainippon Pharma Co., Ltd. Outside Director, Tokio Marine Holdings, Inc.

No. of Company shares held:
1,200 shares



Hitoshi Ogita

Independent Director,
Outside Director

Member of the
Nomination Committee
(Chairperson)

Member of the
Independent Outside
Directors Committee
(Chairperson)

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

Jun. 2010	Outside Director, Imperial Hotel, Ltd. (current position)
Mar. 2014	Senior Adviser, Asahi Group Holdings, Ltd. (current position)
Jun. 2016	Outside Director of the Company (current position)

Significant Concurrent Positions:
Senior Adviser, Asahi Group Holdings, Ltd.
Outside Director, Imperial Hotel, Ltd.
No. of Company shares held:
4,400 shares



Hideaki Kubori

Independent Director,
Outside Director

Member of the
Nomination Committee

Member of the
Risk Policy Committee
(Chairperson)

Apr. 1971	Registration as Attorney-at-Law (current position)
	Joined Mori Sogo (currently Mori Hamada & Matsumoto)
Apr. 1998	Representative, HIBIYA PARK LAW OFFICES (current position)
Apr. 2001	President, Daini Tokyo Bar Association, and Vice President, Japan Federation of Bar Associations
Jun. 2011	Outside Director, Tokyo Stock Exchange Group, Inc. Outside Governor, Tokyo Stock Exchange Regulation (currently Japan Exchange Regulation)
Jan. 2013	Outside Director of the Company (current position)

Jun. 2014	Outside Director, SOURCENEXT CORPORATION (current position)
Apr. 2015	Professor, Toin Law School (current position)
Apr. 2018	Outside Director, Coincheck, Inc. (current position)

Significant Concurrent Positions:
Attorney-at-law
Representative, HIBIYA PARK LAW OFFICES
Outside Director, SOURCENEXT CORPORATION
Professor, Toin Law School
Member of the Supervisory Committee,
The Norinchukin Bank
Outside Director, Coincheck, Inc.
No. of Company shares held:
1,100 shares



Main Kohda

Independent Director,
Outside Director

Member of the
Audit Committee

Member of the
Risk Policy Committee

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)
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:
1,900 shares

3. The Foundations of Value Creation > Corporate Governance Initiatives

> Corporate Governance Risk Management Internal Control Systems and Compliance [Directors](#) Interview with Hiroki Tsuda, Chairperson of the Board of Directors



Eizo Kobayashi

Independent Director,
Outside Director

Member of the
Nomination Committee

Member of the
Compensation Committee
(Chairperson)

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 (current position)

Apr. 2018	Senior Representative for Business Community Relations, ITOCHU Corporation (current position)
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Significant Concurrent Positions:
Senior Representative for Business Community
Relations, 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:
3,300 shares



Makoto Minoguchi

Director

Member of the
Audit Committee

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

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:
7,900 shares



Kimitaka Mori

Independent Director,
Outside Director

Member of the
Compensation Committee

Member of the
Audit Committee

Apr. 1980	Joined Shirwa Accountants (currently KPMG AZSA LLC)
Jun. 2000	Representative Partner, Asahi & Co. (currently KPMG AZSA LLC)
Jun. 2004	Director of financial services, KPMG AZSA & Co. (currently KPMG AZSA LLC)
Jun. 2006	Board Member, KPMG AZSA & Co.
Jul. 2011	Chairman, KPMG FS Japan
Jun. 2013	Retired from KPMG AZSA LLC
Jul. 2013	Established Mori Certified Public Accountant Office Chairman and President, The Japanese Institute of Certified Public Accountants
Jul. 2016	Advisor, The Japanese Institute of Certified Public Accountants (current position) Outside Director of the Company (current position)

Jun. 2017	Outside Corporate Auditor, MITSUI & CO., LTD. (current position) 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:
2,800 shares



Tsuyoshi Yoneda

Independent Director,
Outside Director

Member of the
Audit Committee
(Chairperson)

Member of the
Risk Policy Committee

Apr. 1976	Joined National Police Agency
Sep. 2001	General Manager, Criminal Affairs Department, 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	Outside Corporate Auditor, Marubeni Corporation (current position)

Significant Concurrent Position:
Outside Corporate Auditor, Marubeni Corporation

No. of Company shares held:
2,500 shares

Japan Exchange Group, Inc.

Akira Kiyota Director & Representative Executive Officer, Group CEO	Yoshihiro Isaka Senior Executive Officer (Global Strategy)	Koichiro Miyahara Director & Executive Officer (Management of Tokyo Stock Exchange, Inc.)	Hironaga Miyama Director & Executive Officer (Management of Japan Securities Clearing Corporation)	Atsushi Tabata Executive Officer & CFO (Treasury, Corporate Communications and Investor Relations)
Ryusuke Yokoyama Senior Executive Officer & CIO (IT Planning)	Isoo Hasegawa Senior Executive Officer (General Administration and Human Resources)	Hiromi Yamaji Director & Executive Officer (Management of Osaka Exchange, Inc.)	Satoshi Futagi Executive Officer (Corporate Strategy)	

Tokyo Stock Exchange, Inc.

Koichiro Miyahara President & CEO	Ryusuke Yokoyama Director & Senior Executive Officer (IT Administration, IT Development (Equities Trading, Information and Clearing) and IT Services)	Kazuaki Kama¹ Statutory Auditor	Isao Hasegawa Senior Executive Officer (General Administration)	Hiroki Kawai Executive Officer (Equities, Equities Business Development and Financial Literacy Support)
Yasuyuki Konuma Director & Senior Executive Officer (Listing, New Listings, Equities (Client Relationship Management), Equities Business Development and Financial Literacy Support)	Akira Kiyota Director (part-time)	Katsushi Kuroda¹ Statutory Auditor	Tatsuya Kamiki Executive Officer (IT Services and Tokyo Site Contingency)	Satoshi Takura Executive Officer (IT Development (Information))

Hiroyuki Matsuzaki
Standing Statutory Auditor

Hiroyuki Matsuzaki Standing Statutory Auditor	Yoshihiro Isaka Senior Executive Officer (Information Services)	Katsumi Ao Executive Officer (Listing)	Mikio Hinoide Executive Officer (Tokyo Site Contingency)	
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Osaka Exchange, Inc.

Hiromi Yamaji President & CEO	Tatsuya Kamiki Director & Executive Officer (IT Services)	Syunsuke Matsui¹ Statutory Auditor	Isao Hasegawa Senior Executive Officer (General Administration)	Satoshi Takura Executive Officer (IT Development (Derivatives))
Hiroyasu Ichimoto Director & Senior Executive Officer (Market Planning, Derivatives Business Development, Financial Literacy Support, Comprehensive Exchange Development and Osaka Site Contingency)	Masahiko Maruyama Standing Statutory Auditor	Ryusuke Yokoyama Senior Executive Officer (IT Administration, IT Development (Derivatives) and IT Services)	Akira Tagaya Executive Officer (Market Planning, Derivatives Business Development, Financial Literacy Support and Comprehensive Exchange Development)	Mikio Hinoide Executive Officer (Market Operations)

Yasuhiko Ogawa¹
Statutory Auditor

Yasuhiko Ogawa¹ Statutory Auditor	Yoshihiro Isaka Senior Executive Officer (Information Services)			
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Japan Exchange Regulation

Kiyoshi Hosomizo² President	Kazuo Fukuda Managing Governor (Trading Participants Examination and Inspection, Market Surveillance and Compliance)	Takeshi Hirano Standing Governor (Listed Company Compliance)	Hidetaka Kawakita² Governor	Shosaku Shimomura Standing Auditor
Yasushi Suzuki Managing Governor (Listing Examination, General Administration)		Toru Ishiguro² Governor	Hideki Kanda² Governor	Hiroyuki Matsuzaki Auditor

Japan Securities Clearing Corporation

Hironaga Miyama President & CEO	Nobuhiko Izawa³ Director (part-time)	Kazuhiko Ohashi³ Director (part-time)	Hiroshi Kagiwada¹ Standing Statutory Auditor	Takehiro Hosomura Executive Officer (Clearing Planning and OTC Derivatives Clearing Services)
Masaki Shizuka Director & Senior Executive Vice President (Listed Products Clearing Services and General Administration)	Masamichi Ishikawa³ Director (part-time)	Satoshi Futagi Director (part-time)	Kunihiko Morishita¹ Statutory Auditor	Mikio Hinoide Executive Officer (Tokyo Site Contingency)
Moriyuki Iwanaga Director & Executive Vice President (JGB Clearing Services and Comprehensive Exchange Development)	Yosuke Inaida³ Director (part-time)	Masatoshi Yoshihara³ Director (part-time)	Masao Yanaga¹ Statutory Auditor	

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

Interview with Hiroki Tsuda, Chairperson of the Board of Directors



Hiroki Tsuda

Japan Exchange Group, Inc.,
Outside Director
Chairperson of the Board of Directors

Over the course of his career, Mr. Tsuda was appointed to several key positions within Japan's Ministry of Finance, which he joined in 1972. These positions included Director-General, Tokyo Customs, Deputy Vice Minister for Policy Planning and Co-ordination, Deputy Vice Minister, Director-General of the Budget Bureau, and Administrative Vice Minister of Finance. After leaving the Ministry of Finance, Mr. Tsuda served as Professor at the Graduate School of Public Management, Waseda University from 2008. He was appointed to his current position in 2015.

I was conscious that deliberations should be centered around the future and in particular the three-year period beyond the current Medium-Term Management Plan.

The Board of Directors

Q. What are your thoughts about the current Board of Directors?

Nine of the 14 members of JPX's Board of Directors are independent outside directors. Among those members, there are corporate managers, legal experts, public accountants, researchers, ex-government officials and others. Moreover, this includes two female members, one of whom is a foreign national. This makes for a diverse Board of Directors, and I believe it is a structure which allows varied expert opinions to be easily reflected in management.

In addition, every year we conduct interviews and surveys of all directors to evaluate the effectiveness of the Board, and we make improvements based on the results of those evaluations. We think that the effectiveness of the Board of Directors is improving every year due to this method.

Q. What are your main areas of focus when conducting Board of Directors' operations?

When only company insiders are involved, opinions tend to converge, so having outside directors add their differing perspectives and arguments to discussions generates a good sense of tension within the Board. Personally I feel that the Board of Directors should be a venue for constructive dialogue by a membership that is rich in diversity, so I focus on leading discussions in a way that enables each person to actively participate. At times I also encourage other members to speak. I believe that proactively incorporating diverse opinions and proposals will help governance at JPX to evolve.

Moreover, if a discussion has not reached a mature stage, we will carry it over to the next meeting, rather than cutting it off prematurely. This way, even if opinions differ during a discussion, we can make sure that everyone can consent to the final conclusions.

The 3rd Medium-Term Management Plan

Q. How do you view the formulation process for the 3rd Medium-Term Management Plan that was announced in March of this year?

Developing a management plan is one of the Board of Directors' most important roles.

Deliberations on the general direction of the 3rd Medium-Term Management Plan began last summer, and building on those, robust discussions were held over eight months including eight meetings of the Board of Directors, leading up to the Plan's unveiling in March. The deliberations focused not just on the three year period that the plan covers, but also further into the future, with consideration of course to the pursuit of profit, but in the context that profit is an end result rather than an objective, as stated in our Articles of Incorporation. Discussions started with an analysis of the current environment surrounding JPX, and then moved on to concrete conclusions about what JPX can contribute towards the creation of an affluent society. We believe that the fact that these conclusions are reflected throughout the Medium-Term Management Plan is proof that the Board of Directors' functions worked in the way they should have.

Q. What kind of points did you struggle with in moving discussions forward?

At JPX's Board of Directors, both internal and external members routinely have free-spirited and vigorous discussions. As a result, it took blood, sweat and tears to work out how to bring everyone to a consensus. I do think that this is evidence that the Board of Directors is functioning as it should, but from the management execution side, it must have been difficult to respond to such a variety of opinions.

Q. What impressions were you left with from discussions on the Medium-Term Management Plan at the Board of Directors?

My first impression was how much the directors are deeply mindful of stakeholders. At the early stages of Medium-Term Management Plan discussions, one

director actually expressed a wish to check what kind of opinions had been received from stakeholders.

Moreover, there were differing opinions even on the specific wording which had been selected to be written on the materials, and earnest discussions were held on the best way to phrase things to make sure the Plan could be easily understood.

Secondly, I was struck by the keen awareness that all the directors have on how JPX must be a role model for corporate governance, in its position as parent company of the Tokyo Stock Exchange, which formulates the Corporate Governance Code.

Q. What are your expectations for JPX going forward?

The social and economic environment surrounding JPX is facing significant structural changes. Outside Japan, uncertainties are rising with the increasing shift toward protectionism and partisan politics, while inside Japan, the declining birthrate and aging population means that stable asset building for retirement is becoming an urgent issue. In addition, striking developments are being carried out in new technologies, led by fintech. I am expecting JPX to create value in this environment through the solid implementation of "Sail to the future, Keep the market secure", our 3rd Medium-Term Management Plan strategy. To that end, I would like the Board of Directors to continue to sufficiently deliberate on the progress of the Medium-Term Management Plan in order to fulfil its functions of directing and overseeing management.

Our view of ideal governance is something that changes in line with the times and demands of society. As the parent company of the Tokyo Stock Exchange, which formulates the Corporate Governance Code, I would like the Company to adapt to the environment and endeavor to make it so that we can go forward with a governance framework to be proud of.

Financial Education

Role of Financial Education

Japan is facing problems arising from a shrinking workforce and limitations on its social security system. Therefore, 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 literacy of each and every member of our society and by pushing for a shift from savings to investment. To this end, JPX implements various initiatives.

In Japan, households have ample monetary assets, totaling more than JPY 1.8 quadrillion; however, these assets are still not being fully utilized. The statistics of the composition of Japanese household assets show that cash and deposits account for a substantial 54% of the total, while stocks and other investments account for only 13%.

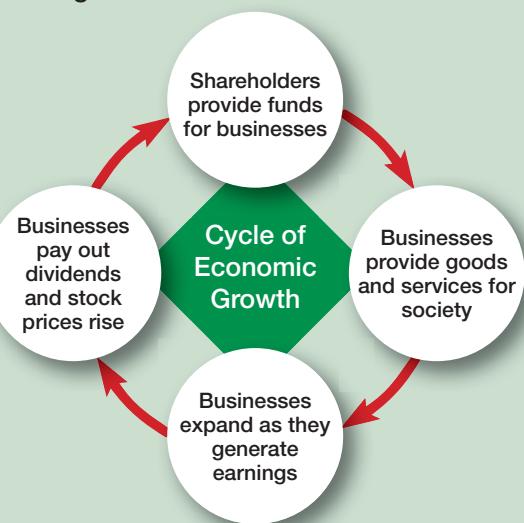
If even a portion of the household cash and deposits that account for over half of household assets were to be invested in publicly traded companies, companies could expand their businesses and provide new products and services, resulting in additional employment and

increased wages. We, thus, need to create a virtuous cycle in the Japanese economy by promoting the shift from savings to investment.

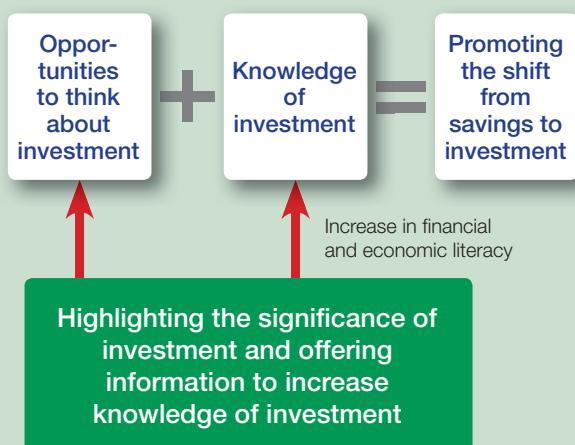
At the same time, there is no guarantee that the existing social security system will be able to continue providing sufficient financial resources for the elderly after retirement amid the major changes that arise, such as the social security system being reviewed due to low birthrates and the aging population. Each and every one of us must proactively build assets in a manner suited to our life cycles.

For this reason, JPX offers various educational programs that provide practical information on what to invest in and how to invest to people of all ages from elementary school to adults with different investment experience, including those new to investing. These programs serve as an opportunity to think about investment and motivate participants to start investing. JPX contributes to the development of the Japanese economy by providing more people with the information necessary to participate in the financial market, thereby accelerating the shift from savings to investment.

Driving the Economic Growth Cycle through Asset Utilization



Initiatives to Encourage Participation in the Market



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 remedy this situation, JPY sends staff to speak during politics and economics or civics classes at schools. They give lectures on how stock companies work and mix some role-play and skits to help students familiarize with finance and economics. During FY2018, JPY held over 110 lectures, reaching out to approximately 3,800 students in total.

These lectures are also given at TSE and OSE along with tours of the facilities to let students experience the dynamism of economics on-site. In FY2018, TSE welcomed a cumulative total of 9,700 students for 470 lectures.

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

JPX holds many events, mostly during summer vacation, for elementary and junior high school students and their families to familiarize with finance and economics. In FY2018, a total of approximately 1,600 persons participated in these events.

OSE held a program called "Learning with Children - Finance and Stocks Summer School", for fourth to sixth grade students in collaboration with the Osaka prefectural government's finance and public relations committee, Japan Securities Dealers Association, and other organizations. The students heard explanations from on-site staff as they visited key facilities in the Osaka financial and economic community.

Lectures for University Students

JPX offers lectures at universities nationwide to substantially deepen the understanding of finance, economics, and securities markets among college students who will soon be deeply involved in the Japanese economy. Students also have the opportunity to visit TSE and OSE to gain firsthand experience and attend lectures. In FY2018, more than 190 lectures were held as part of this program, attracting a cumulative total of approximately 7,500 attendees.

To help nurture the next generation of leaders, JPY holds sponsored courses at Keio University and joint courses at Sophia University and Yokohama National University. Lectures cover the latest developments in law, economics, management and accounting related to the securities market, along with the roles expected of listed companies.

In addition, JPY has also sent staff to Kansai University to give lectures on the basic mechanisms and roles of derivative products. JPY is also prioritizing lectures at major universities with a focus on life planning and asset building.

Financial Lectures for All Generations

School students*	Approx. 17,000 participants
Teachers	Approx. 1,400 participants
University students	Approx. 8,300 participants
Adults	Approx. 20,000 participants

* Includes parents and guardians of students participating in the programs for elementary and junior high school students



Economics Lectures for Parents and Children



Lecture for University Students at Keio University

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JPX Entrepreneur Experience Program

The JPX Entrepreneur Experience Program aims to give students the experience of running and managing a simulated start-up stock company that operates a bazaar stall. This entrepreneur education program involves events for participants to learn and gain the ability to think on their own initiative and, thereby, contribute to the development of more well-rounded individuals. JPX collaborates with schools and regional communities as part of JPX's activities to support financial literacy; and, in FY2018, the program reached 13 locations across Japan and drew about 1,300 participants.

In FY2015 and FY2016, as a result of this initiative, JPX received an honorable mention award from the judges of a program sponsored by the Ministry of Education, Culture, Sports, Science and Technology that recognizes companies that offer superior hands-on experience activities for young people.



JPX Entrepreneur Experience Program

Economics Lectures for School Teachers

JPX provides seminars for junior high and high school teachers mainly during summer vacation, aiming at equipping teachers with knowledge and ways of thinking that will support them in holding classes for students. In FY2018, JPX held the Summer Vacation Economics Course for Teachers and the Winter Vacation Economics Seminar for Teachers, which were attended by a cumulative total of around 970 teachers over nine days. JPX also sends staff to speak at training and study sessions for teachers.

JPX Academy

Knowledge of "finance and economics" and "asset building" is important for everyone, and there is a growing need to increase opportunities for people of all generations to learn about them.

JPX Academy offers information from a neutral point of view on financial products such as stocks, exchange traded funds (ETFs), and derivatives, as well as macroeconomic trends, the latest economic theories, and other subjects relevant to asset building and management. In FY2018, a cumulative total of over 10,500 persons participated in JPX Academy programs.



JPX Academy

Joint Projects with Securities Industry Groups

JPX collaborates with securities industry groups and organizations to offer programs to disseminate information and forge a deeper understanding of securities. In particular, JPX offers simulated stock investment programs for students from junior high schools to universities to help them learn about the relationship between stock price fluctuations and economic phenomena. A cumulative total of nearly 42,200 students from 810 schools have participated in these programs in FY2018.

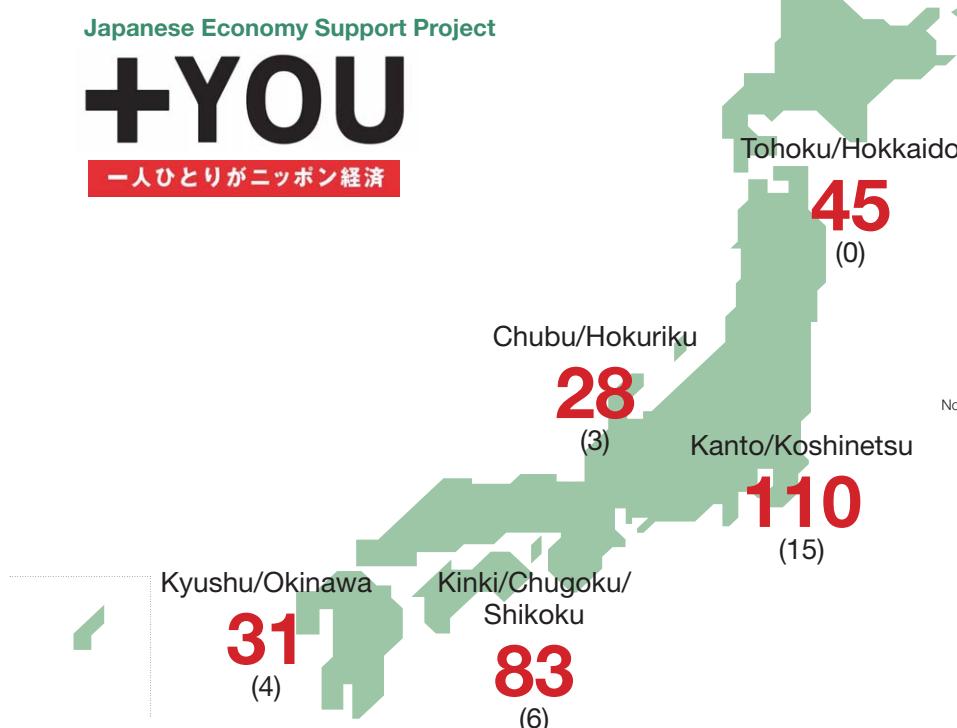
+YOU Japanese Economy Support Project

TSE has been involved in the “+YOU Japanese Economy Support Project” since FY2012 under the slogan of “imparting new energy upon Japan through the securities market”. The objective of this project is to inform as many people as possible of the true meaning and dynamics of securities investment. To achieve this objective, the project introduces the appeal of investment to those who have no interest in economics or investment.

In FY2018, JPX held 28 seminars, in which a cumulative total of approximately 3,000 individuals participated.



+YOU Seminar



Note: The numbers in red on the map indicate the total number of seminars held in each region since the start of Japan Support Nationwide Caravans (FY2012). Numbers in parentheses indicate the number of seminars held in FY2018.

Lecturer Dispatch Service for Listed Companies

To provide employees of listed companies and other organizations with opportunities to learn more about securities markets and asset building as part of training and study sessions, we began a service that dispatches staff who are well-versed in finance and capital markets as lecturers. The lectures aim to help attendees realize their own optimal asset building 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 employ your money to achieve your life plan” and “Pointers for using DC/iDeCo and NISA defined contribution pension plans.”

This service was used mainly as part of in-house training and new employee training. The lectures were held for approximately 100 companies and organizations and were attended by more than 4,700 individuals in FY2018.

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Visits to JPX Facilities

To give everyone a better firsthand understanding of securities exchanges, JPX opens its facilities to various groups and individuals from elementary school children through to university students and the general public.

In FY2018, over 63,000 persons in total visited TSE Arrows in Tokyo and OSE Gallery in Osaka.



Visits to JPX Facilities

TSE Money-bu-jpx.com

We launched TSE Money-bu (TSE's Money Club), a website for promoting asset building to retail investors, where we broadcast information daily (currently available only in Japanese).

The purpose of this website is to help as many people as possible to engage in asset building by providing information about the importance of asset building through long-term, diversified investment. The site presents stories about the role of money in familiar situations, using language that is accessible even for novice investors.

The site is also intended to disseminate information to a wider range of individuals. For example, the site includes explanatory videos, infographics which explain things in an easy-to-understand visual form, and articles especially for the elderly focusing on a future where people will live to 100 years old.



TSE Money-bu's Page

Online Courses

To provide opportunities to learn about finance and economics for those who are unable to attend seminars, from April 2018 TSE has collaborated with the NTT DOCOMO subsidiary DOCOMO gacco to offer online courses on asset building. The course in 2019 was titled "2019's the time for asset building: More ease, more benefits!" More than 15,000 people (40% of whom had had no previous investment experience) have taken the course, and 80% of those who had completed the course stated that they would like to take more advanced courses on investment and asset management.

WEB "Shift from Savings to Asset Building" online course (in Japanese only)

<http://gacco.org/jpx/shisankeisei/>

The Spread of ESG Investment

In recent years, ESG investments have been spreading rapidly. These take into consideration ESG (environment, society, and governance) elements from the perspective of evaluating corporate sustainability and corporate value over the medium- to long-term.

JPX has been making efforts to promote ESG investment, including the formulation of the Corporate Governance Code and the listing of ESG-related products. In the years to come, JPX will work together with its stakeholders to advance their efforts and, as a listed company, will promote ESG-related efforts to improve the corporate value of our own company.

Providing Information to and Promoting Dialogue with Listed Companies and Investors

To encourage mutual understanding and dialogue about ESG issues between listed companies and investors, JPX held a symposium on ESG, and in June 2019, translated into Japanese the "Model Guidance for Companies on Reporting on ESG Information" prepared by the Sustainable Stock Exchanges (SSE) Initiative. We anticipate that this will be a help to listed companies when considering ESG-related disclosure.



Harvard University Professor John Ruggie at "Responsible Business Conduct and ESG Investment" Symposium (September 2018)

Listing of ESG-Related Products and Highlighting Company Activities

To promote ESG investment, JPX calculates ESG-related indices, lists ESG-related ETFs, and has set up an infrastructure fund market and an information disclosure platform for green and social bonds. Also, to provide retail investors with opportunities and materials to consider when making investment decisions, we select and publish lists of companies on certain themes: those that encourage female participation, and those that manage employee health and productivity from a strategic perspective.



"Ring the Bell for Gender Equality" ceremony on International Women's Day (March 2019)

Promoting the Spread of TCFD Recommendations

The Task Force on Climate-related Financial Disclosures (TCFD) is a privately-led task force established in 2015 at the request of the G20 Finance Ministers and Central Bank Governors' Meeting. A final report was issued in June 2017 aimed at encouraging individual financial institutions and corporates to ascertain and disclose the financial impact of "risks" and "opportunities" brought about by climate change.

JPX announced its support for the final TCFD recommendations in October 2018. Subsequently, Mr. Mark Carney, Governor of the Bank of England and then Chair of the Financial Stability Board (FSB), and Ms. Mary Shapiro, a TCFD special advisor who was formerly Chair of the U.S. Securities and Exchange Commission (SEC), were invited to exchange views on climate change and finance. We are also promoting the spread of TCFD recommendations, through activities such as holding a symposium entitled "Company-investor Dialogue on TCFD: Future Prospects" jointly with the Financial Services Agency, and participating in the TCFD Consortium.



FSB chairman Mark Carney exchanging views on TCFD (November 2018)

Promoting International Cooperation

Contributing to International Organizations

■ World Federation of Exchanges (WFE)

An industry association composed of members from exchanges and clearing organizations around the world, WFE is engaged in making policy recommendations and conducting surveys and research about capital markets as well as in the collection and provision of statistical data. WFE also supports the development of market infrastructure by facilitating information sharing among members and by providing technical support for emerging exchanges. Recent important themes for WFE activities include regulatory dissonance and market fragmentation in international financial markets, technology-related policies including initial coin offerings (ICOs) and crypto-assets, and ESG issues in market structure.

JPX supports the work of WFE by actively participating in the activities of the WFE Board of Directors and Working Committees, in particular by serving as vice-chair of the Sustainability Working Group.

■ Asian and Oceanian Stock Exchange Federation (AOSEF)

AOSEF is a regional federation of 19 stock exchanges for the Asia-Oceania region. AOSEF aims to facilitate information sharing and provide mutual technical support among member exchanges. JPX serves as the secretariat for AOSEF, promoting research initiatives while also leading the General Assembly and Working Committee.

For recent activities, we set up discussion groups on the themes of corporate governance, investor education, and information disclosure, while exchanging information and research among members. We are also planning to launch a group on the theme of sustainability, focusing on topics in which member interest is high.



AOSEF General Assembly

Trainees from Overseas Exchanges (commissioned by JICA)

In recent years, the subject of the establishment and development of stock exchanges in rapidly growing countries in Asia has become an important topic. Commissioned by the Japan International Cooperation Agency (JICA), JPX accepts trainees from exchanges and related organizations of various countries and tailors the content of the training programs to their needs as a way of contributing to the development of their stock markets.

The training is primarily geared to core business operations, such as listing examination and management, trading, trading participant systems, clearing and settlement. Also included are discussions on the latest topics, such as fintech and sustainability, and lectures are given by the person in charge of each department. In addition to the multinational training program, more recently, JPX has provided training with a focus on nurturing the securities market of Myanmar, a country to which Japan has been providing support on the development of its capital market. JPX is also supporting the development of Myanmar's securities market by supporting the operation of Yangon Stock Exchange.



JICA Seminar

Facilitating Studies and Research

JPX Working Papers

JPX conducts studies and research on changes in the market structure and regulatory environment with a view to enhancing its competitiveness. The results of such studies are compiled and published by JPX officers and employees with contributions from external researchers. These papers are published to invite broad commentary from academia, research institutions, market users, and related parties.

In addition, we actively use JPX Working Papers to widely share, throughout the industry, knowledge obtained from fintech-related initiatives at JPX. So far, in addition to various studies on the applicability of blockchain/distributed ledger technology to financial market infrastructure, we have announced the introduction of robotics process automation (RPA) throughout the JPX Group and the use of machine translation for timely disclosure materials.

JPX Working Papers Published in FY2018

Title	
February 2019	Liquidity and Arbitrage Cost between ETF and Stocks using Agent-Based Model
	Study on Applicability of DLT in Trade Matching Processes, Phase 2
	Initiatives toward Using Blockchain and Encouraging Open Innovation in the Securities Industry
	Simulation of Chain Bankruptcy: the Effects of Asset Price Volatility and the Network Structure
December 2018	Impact on Utility of Traders by Improvement of Liquidity in Stock Secondary Markets
July 2018	Proof of Concept on Utilization of Blockchain Technology in KYC Processes

Joint Research with The University of Tokyo

JPX collaborates with The University of Tokyo to conduct research on technologies and system design for the stable and efficient operation of financial instruments exchange markets. JPX's finance research team is working with the research team under Professor Kiyoshi Izumi at the Department of Systems Innovation, School of Engineering of The University of Tokyo, to bring together their areas of expertise as a way of driving forward research into the use of artificial market simulations to virtually recreate conditions that cannot be observed in the actual market. The results of such joint research are published in the form of JPX Working Papers.

JPX Study Group on the Financial Instruments and Exchange Act

JPX provides a platform for a study group on the Financial Instruments and Exchange Act to make research outcomes on the various legal issues related to the financial instruments and exchange market broadly available in Japan and overseas.

This study group is composed of more than 20 leading researchers, who generally meet once a month to make reports and hold discussions.

Along with posting the minutes and reports of this study group on the JPX website, the reports are periodically compiled into publications that are distributed to researchers and related organizations.

WEB

JPX Working Papers

<https://www.jpx.co.jp/english/corporate/research-study/working-paper/>

1. Overview of JPX

2. Strategies for Creating Value

3. The Foundations of Value Creation

4. Financial and Corporate Data

WEB

JPX Study Group on the Financial Instruments and Exchange Act (in Japanese only)

<https://www.jpx.co.jp/corporate/research-study/research-group/index.html>

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Engagement with Shareholders and Investors

JPX is focusing its efforts 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 decisions and shares views obtained from shareholders and investors with senior management, thereby further enhancing corporate value.

Engagement with Shareholders

Shareholders Meeting

JPX sees the annual general shareholders meeting (AGM) as a valuable opportunity to engage in constructive dialogue with its shareholders, so they can deepen their understanding of the company. Therefore, every year, to allow more shareholders to attend, we hold the meeting early, avoiding the days on which many other companies hold their AGMs. JPX held its shareholder AGM for FY2018 (April 1, 2018 to March 31, 2019) on June 19, 2019, with 2,375 shareholders in attendance.

The notice of the shareholder AGM is sent out three weeks ahead of the meeting to ensure that 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, JPX is promoting the use of more color and graphics in the AGM notice as part of its efforts to present the information in a more easily understandable form.

The AGM is attended in person not only by the directors and executive officers of JPX, but also directors from subsidiaries and affiliates. This is so that the broad range of shareholder questions, which cover activities of the whole group, can be appropriately answered by the correct people, including those from subsidiaries. We also upload videos of the AGM to the JPX website for those who were unable to attend on the day.

Shareholders may send in their votes via the Internet or the Electronic Voting Platform, as well as by post. At the AGM held on June 19, 2019, approximately 90% of voting rights were exercised.

WEB Shareholders Meeting

<https://www.jpx.co.jp/english/corporate/investor-relations/shareholders/meeting/>



AGM notice



AGM venue

Engagement with Institutional Investors and Analysts

IR Meetings

JPX senior management reaches out to domestic and overseas institutional investors and analysts in face-to-face meetings. In FY2018, JPX held five separate investor roadshows across Europe, the U.S., and Asia. We are also striving to increase opportunities for dialogue with institutional investors and analysts, for example by participating in IR conferences both in Japan and abroad. Opinions received from institutional investors and analysts through such meetings are provided periodically to management and related departments, and then reflected in JPX management practices.

Earnings and Medium-Term Management Plan Presentations, JPX IR Day

In FY2018, in addition to holding two earnings presentations, JPX gave a presentation for its newly announced 3rd Medium-Term Management Plan in March 2019. The company also provided opportunities for investors to exchange views with the Group CEO and top management of the JPX subsidiaries at the JPX IR Day 2018, our second stand-alone IR event. Video and audio recordings of each meeting are made available in Japanese and English as early as the same day. In this way, JPX is committed to providing domestic and overseas investors with timely information.



IR meeting for retail investors

Engagement with Retail Investors

We held a total of 14 JPX outreach events, reaching approximately 2,500 retail investors by participating in major domestic IR events, including TSE IR Festa, face-to-face seminars held at securities company branches nationwide and live online seminars.

JPX also actively provides information to retail investors on its IR website. In addition to providing content that offers an overview of JPX in an easily understood format, we deliver documents, videos and other content from IR events in a timely manner.

WEB

For Retail Investors (in Japanese only)

<https://www.jpx.co.jp/corporate/investor-relations/individual/>

IR E-mail Distribution Service for Retail Investors (in Japanese only)

<https://www.jpx.co.jp/corporate/investor-relations/ir-mail/>



An IR event

Engagement with Market Users

Building collaborative relationships based on confidence and trust among market participants is essential for operating sustainable markets. JPX provides a range of opportunities for dialogue with market users. These dialogues allow JPX to bring more transparency to market operations and create more convenient markets.

Engagement with Trading Participants

Mutual Understanding through Dialogue

■ Market Operating Committee

TSE and OSE, operators of JPX markets, are each equipped with 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 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.



JPX
JAPAN EXCHANGE GROUP

■ Exchanges of Views with Securities Company Representatives and Others

JPX believes that communication with securities companies is very important to improve exchange operations. We hold discussion meetings and roundtables, as appropriate, with representatives of trading participants and others, as we consider them effective venues to promote mutual understanding among top management and deepen relationships of trust. We also have closer dialogue with securities companies and institutional investors on a technical level, and do our best to change the trading system in line with changes in actual trading conditions. In fact, the below changes were implemented recently based on such exchanges of views.



Revision of ETF Market Making Scheme in April 2019

Originally, the market making scheme for ETFs was a liquidity improvement measure with a focus on retail investors. However, as a result of calls from larger institutional investors for increased order volumes, we have revised the scheme for a limited number of products to ensure a volume of orders large enough for large institutional investors to trade.

Review of Trading System to Improve Market Function Scheduled for November 2019

We received requests, primarily from overseas institutional investors, to improve execution rates for Itayose* trades at the end of the afternoon session ("Obike"). As a result of exchanges of views with trading participants, we are updating our price stabilization measures (continuously contracted quotes), as well as changing the trading system in order to conduct closing Itayose with wider price ranges.

* An auction method which looks for matching buy and sell orders, then uses that price to execute all orders.

Engagement with Investors

JPX undertakes a range of activities and provides information to raise its corporate profile, build the JPX brand, and deepen public understanding of its role in securities markets.

TSE IR Festa

Since 2007, TSE IR Festa has been providing retail investors and listed companies with a venue to meet each other. Supported by many exhibiting companies and retail investors, the TSE IR Festa has grown to become one of the largest IR events in Japan. As well as IR briefings and booth exhibitions by listed companies, the event sees briefings on products such as ETFs and REITs, and seminars aimed at improving financial literacy; this way, the event can be useful not just for those with a wealth of investment experience, but also those who are just considering making a start in investment.



TSE IR Festa

JPX Concerts

As part of our cultural contribution activities, we have been holding JPX concerts focusing on classical music since 2016. In FY2018, we held a concert in Tokyo featuring a string quartet with members of the New Japan Philharmonic Orchestra. We also co-sponsored the Special Concert of Four Orchestras in Osaka Featuring Yutaka Sado at the 57th Osaka International Festival, and we were uplifted by the exquisite tones of classical music. While working to realize a richer, more affluent society, we hope that the JPX concerts will serve as a catalyst for people to feel more familiar with JPX.



JPX Concert

First and Last Trading Days of the Year

JPX holds ceremonies at the Tokyo and Osaka exchanges to celebrate the first trading day of each year and the end of the year's trading. At the end of year ceremony in Tokyo, celebrities and various people in the news grace the event as special guests and convey their messages to investors. The general public can gain attendance to the ceremonies, via a lottery or on a first-come-first-served basis, or watch recordings from the ceremonies on JPX social media.



First Trading Day of 2019

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Human Resources

Human resources are one of the prime assets for enabling JPX to sustainably increase its corporate value. In order to bring the best out of each and every employee, JPX endeavors to create workplaces where employees find it easy to work.

Human Resources Development

JPX has created an environment where employees can actively master specialized knowledge, access the latest information, and pursue a broad perspective and free and creative thinking. According to employees' length of service and job responsibilities, the programs provided vary and encompass career development training to enhance knowledge and skills; skills development training to acquire foreign languages and expertise; professional development training to obtain an MBA or other advanced degrees at overseas universities; and more.

Promoting Diversity

For JPX, "promoting diversity" means for each and every employee to have mutual respect for other employees with 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 those beliefs, JPX is promoting the development of a work environment that accepts and supports ways of working which fit with diverse values and lifestyles. From the viewpoint of supporting employees' desire to remain in the workplace, 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 illness 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 company, we are also aiming to create more comfortable workplaces and build a more robust organizational foundation for the future.

■ Supporting the Balance between Various Lifestyles and Work [Improving Maternity/Childcare and Adult Caregiving Support Systems](#)

At JPX, we are working to create comfortable working environments so that employees with limited time—for example, due to childcare, adult caregiving or treatment for illness—can make the most of their abilities. In particular, to make it possible for male employees to participate in childcare and housework, we introduced parental leave as a type of paid leave, and built an environment where employees feel comfortable using it. As a result, in FY2018 the number of male employees who took parental leave more than tripled compared with FY2015. We also introduced leave and days off exceeding the legal requirement for adult caregivers, and a system for flexible shortened working hours. Leave for adult caregivers can be taken in daily, half-daily or hourly units, and we also hold "caregiver seminars" every year in support of balancing work and caregiving. The caregiver seminars provide information and promote understanding of adult care, so that employees shouldering this burden, the number of which is expected to increase in the future, can continue to balance caregiving with work.

Human Resource Development and Training Programs



CEO Kiyota Mingles with New Employees



New Kurumin Mark

WEB

[Support Systems for Balancing Work and Childcare](#)

<https://www.jpx.co.jp/english/corporate/sustainability/csr-activities/employee/>

Career Advancement for Female Employees

From the viewpoint of boosting female employees' careers by encouraging them to participate and contribute to 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. From FY2019 onward, we plan to implement measures to give added impetus to the development of female employees. JPX has set a numerical target of at least 8% female employees in managerial positions (6.1% as of April 2019) to be achieved through the above measures by FY2022. 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.

The Re-employment System

JPX has a contingency re-employment system that enables employees to select part-time work after reaching the statutory retirement age. Through this system, JPX is working to keep valuable human resources, while making it possible for re-employed employees to continue working.

Employment of People 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 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.

Health Management

JPX believes that the health of each individual employee is essential for our employees to fully leverage their competencies. JPX is, therefore, working to maintain and promote health, while at the same time striving to grasp the health condition of all of our employees to aid early detection. JPX also provides monetary assistance for examinations to facilitate the early detection of a range of cancer types.

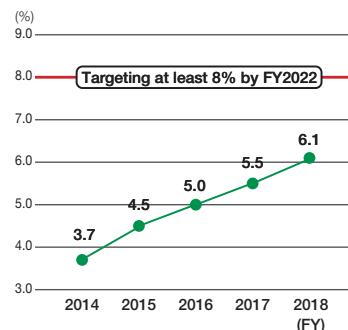
Mental Health

JPX has made both internal and external counseling available to ensure that employees can work while maintaining both their physical and mental well-being. In addition to enabling interviews with psychiatrists as needed, we also provide information on the prevention of mental illness. In recent years, we have carefully conducted mental care not only for mental disorders but also for employees returning from medical treatment.

Safety and Health Initiatives

In order to provide a safe and healthy work environment, JPX organizes a monthly health and sanitation committee, conducts workplace inspections by an occupational health physician, manages long working hours and late-night work, and conducts stress checks.

Ratio of Women in Managerial Positions



Health Promotion Seminar for Employees

3. The Foundations of Value Creation >> Initiatives for Realizing an Affluent Society

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Pick Up

Implementation of Work Style Reform Program

As a response to internal and external environmental changes, as well as human 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. With this approach, JPX is undertaking initiatives to create an environment that allows greater flexibility in work styles and create more off hours. 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 off-hour activities that will be reflected at work.

Targets for Work Style Reforms

In order to allow employees to spend more time on activities outside of work, JPX is advancing work style reforms on a company-wide scale with numerical targets for reducing overtime hours and using annual paid leave.

Work Style Reforms at JPX

Prevention of Overworking	Every month, we conduct checks into working hours, including of those at the managerial level. To prevent long working hours from harming an employee's health, we try to ascertain their health situation at an early stage based on our own standards.
Diversifying leave systems	JPX has instated systems for Professional Development Leave and Leave to Accompany Spouse in such cases 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 parenting. 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 off-hour activities	JPX supports employees who would like to engage in activities for personal development during the extra time available thanks to work style reforms. JPX is raising the amount 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 reevaluate their work ethics and behavior by offering lectures on work style reforms, running e-learning courses, regularly providing information, calling out directly to employees, and so forth.
Joining Iku-boss Enterprise Alliance	Managers or bosses will play the greatest part in achieving work style reforms, thereby creating more flexibility in employee work styles and more off hours. With the workforce becoming diverse, JPX has joined the <i>Iku-boss</i> Enterprise Alliance ¹ to help promote our work style reforms, and is working on nurturing executives and managers as <i>Iku-boss</i> , ² ideal bosses of the new generation.

Notes: 1. A network of companies that recognize the necessity of *Iku-boss*, dedicated to improving such awareness among managers and to developing them as ideal bosses of the new generation, where the life of employees diversifies.

2. A boss (male/female manager or corporate executive) who allows staff to balance work and family commitments and to pursue career development while achieving business targets, as well as enjoying his/her own work and private life.

Towards a Cheerful, Rewarding, and Harassment-Free Work Environment

JPX pays close attention to individual rights and safety in the workplace to create an environment where all employees are able to work as productively as they can without any worries. Therefore, JPX stipulates "respect for human rights and prohibition of discrimination" in its Charter of Corporate Behavior, which prohibits all forms of harassment based on gender, seniority, maternity/paternity, and any other personal attributes, as well as unfair discrimination against those who identify as LGBT. We ensure that all employees easily and safely consult with the relevant contacts in the event they are victims of or witness any type of harassment. JPX employees have access to direct consultations with HR and also a Compliance Hotline that also accept anonymous correspondence. We also provide detailed training to raise understanding of harassment and appropriate action for eliminating harassment.

We will continue these efforts to provide workplaces where employees can work with confidence and motivation and be free from discrimination or harassment in all its forms.

The Environment and Regional Communities

JPX aims to contribute toward the realization of a sustainable society and actively implements initiatives to reduce its environmental footprint. JPX also takes steps to raise environmental awareness among its employees through activities such as tree planting and community cleanup programs.

In addition, JPX actively participates in events to give back to local communities that provide it with invaluable support on a day-to-day basis.

Contributing to the Environment

■ Reducing Our Environmental Footprint

As part of its activities to reduce its environmental footprint, JPX is cutting down its power consumption for lighting, air conditioning, and other purposes. For example, JPX updated equipment in the TSE building, its main business site, after the securities industry established a voluntary power consumption reduction target for itself in 2008. JPX has also worked to raise the environmental awareness of its employees. In response to the greenhouse gas emission targets set for the five years from FY2015 to FY2019 under the Tokyo Metropolitan Environmental Security Ordinance (17% reduction from the average emissions released from FY2005 to FY2007), JPX has continued to strive to reduce power consumption, namely by replacing air-conditioning equipment and hot-water supply equipment, switching to LED lighting, and reducing lighting sources in common areas. As a result, JPX was able to reduce emissions of greenhouse gases from the TSE building in FY2018 by 10% compared with the emissions targets. (See page 60 for data.)

In addition, overall energy use at JPX, including data centers, has decreased. While the enhancement of backup systems in recent years has led to the need to expand facilities, JPX has improved the energy efficiency of its infrastructure and reduced overall energy use. Going forward, we will continue to strengthen our environmental management systems and reduce our environmental footprint in our contributions to the creation of a sustainable society.

■ Tree-Planting Program

The TSE Listing Forest began in June 2004 in Yurihonjo, Akita Prefecture. Each year, saplings are planted at the five-hectare plot with the hope that the exchange will grow and prosper along with newly planted trees.

Together with these conservation activities, JPX worked alongside the local Yajima region, which cooperated on these conservation activities, in providing financial education. At Yashima Junior High School, JPX held an on-site course entitled "How Stock Companies Work", and organized a study session with staff at the city's Yajima Branch Office to consider the importance of life planning and financial education. In the city of Yurihonjo, Akita Prefecture, an NPO established to run the JPX Entrepreneur Experience Program under its own direction has initiated projects—for example at Akita Prefectural University, Akita Prefectural Nishime High School and Akita Prefectural Yashima High School—with the cooperation of commercial enterprises, academia, government, and financial institutions. The NPO has developed a finance and economy 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.

Contributing to 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 TSE a living museum. For the event, JPX awards 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.

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Corporate Data: Environment and Employees

Energy Consumption at TSE Building (electricity and gas)

	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Energy consumption at TSE Building	Total usage										
	Electricity (kwh)	8,132,632	7,921,216	7,435,466	6,079,696	6,272,280	6,413,800	6,135,360	5,899,040	5,935,384	6,035,488
	City gas (m³)	349,994	343,707	362,622	319,200	341,276	304,248	300,295	306,467	322,579	326,926
	Per capita										
	Electricity (kwh)	10,078	9,660	9,214	7,686	7,715	7,297	7,044	6,989	7,419	7,442
	City gas (m³)	434	419	449	404	420	346	344	363	403	403
	Total emissions										
	CO ₂	3,943	3,848	3,631	3,020	3,143	3,114	3,001	3,542	3,595	3,656
	CO ₂ emission target (based on Tokyo Metropolitan Environmental Security Ordinance)	—	—	3,585	3,585	3,585	3,585	3,585	3,956	3,956	3,956
	CO ₂ emission result (based on Tokyo Metropolitan Environmental Security Ordinance)	—	—	+1%	-16%	-12%	-13%	-16%	-10%	-9%	-8%
Emissions of greenhouse gases from TSE Building	Per capita										
	CO ₂	4.89	4.69	4.5	3.82	3.87	3.54	3.44	4.19	4.49	4.51
Note: The volume of greenhouse gas emissions is calculated according to the method specified in the Tokyo Carbon Reduction Reporting Program issued in the Tokyo Metropolitan Environmental Security Ordinance.											
Figures for FY2010 through FY2014 were emission targets for the first compliance period of the ordinance. Those for FY2015 through FY2018 were for the second compliance period.											

Note: The volume of greenhouse gas emissions is calculated according to the method specified in the Tokyo Carbon Reduction Reporting Program issued in the Tokyo Metropolitan Environmental Security Ordinance.
Figures for FY2010 through FY2014 were emission targets for the first compliance period of the ordinance. Those for FY2015 through FY2018 were for the second compliance period.

Employees

	FY2014	FY2015	FY2016	FY2017	FY2018
No. of employees by gender					
All	1,001	975	1,085	1,093	1,110
Male	728 (72.7%)	716 (73.4%)	792 (73.4%)	803 (73.4%)	805 (72.5%)
Female	273 (27.3%)	259 (26.5%)	293 (26.5%)	290 (26.5%)	305 (27.4%)
Average years of service					
All	17.3	16.7	17.0	17.1	17.3
Male	15.9	15.5	15.9	15.9	16.1
Female	21.0	20.2	20.5	20.5	19.9
No. of employees in managerial positions					
Total	350	336	339	345	388
Female	13 (3.7%)	15 (4.5%)	17 (5.0%)	19 (5.5%)	24 (6.1%)
No. of new hires					
Total	12	20	25	26	26
Females/Foreign nationals	3	10	7	12	12
Ratio of annual paid leave taken	49.9%	53.7%	67.0%	67.0%	71.8%
No. of male employees taking time off for childcare (including childcare leave)	8	10	7	30	35
No. of female employees returning to work after maternity leave	94.1%	100%	100%	100%	100%

Notes: 1. As a general rule, "employees" refers to persons working at JPX. 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 an outside entity to JPX and persons on maternity/childcare leave.

2. Figures for percentage of female employees in managerial positions are as of April 1, 2019.



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Review of Operations and Financial Condition

Financial Highlights of FY2018 (IFRS)

	(JPY mil.)				
	FY2014	FY2015	FY2016	FY2017	FY2018
Operating Revenue	106,167	114,776	107,885	120,711	121,134
Operating Expenses	52,863	50,925	50,185	50,902	54,111
Operating Income	53,529	66,271	59,377	71,791	69,535
Net Income	34,427	44,877	42,124	50,484	49,057
EBITDA	65,743	77,791	71,595	82,505	82,568
Dividends per Share ¹ (JPY)	25.0	50.0	47.0	67.0	70.0
ROE	15.6%	18.2%	16.4%	19.0%	17.6%

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

Average Daily Trading Value/Volume of Main Products

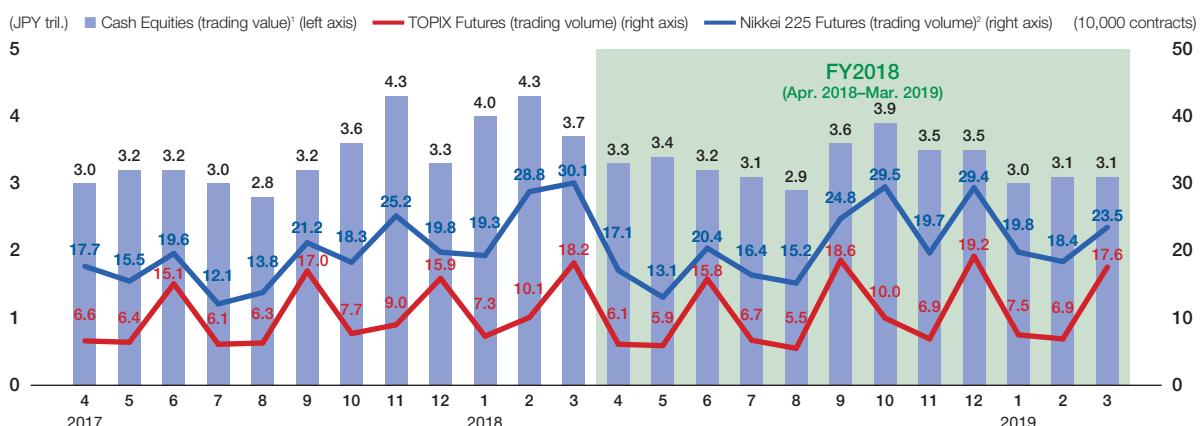
	FY2014	FY2015	FY2016	FY2017	FY2018
Cash Equities (trading value) ¹	JPY 2,856.4 billion	JPY 3,412.6 billion	JPY 2,998.7 billion	JPY 3,446.2 billion	JPY 3,306.8 billion
TOPIX Futures (trading volume)	84,785 contracts	93,824 contracts	89,966 contracts	105,287 contracts	103,896 contracts
Nikkei 225 Futures ² (trading volume)	186,565 contracts	230,435 contracts	184,250 contracts	200,646 contracts	205,046 contracts
Nikkei 225 Options ³ (trading value)	JPY 27.8 billion	JPY 30.7 billion	JPY 24.8 billion	JPY 27.0 billion	JPY 23.0 billion
10-year JGB Futures (trading volume)	36,745 contracts	34,658 contracts	28,569 contracts	35,978 contracts	42,087 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



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 FY2018, JPX recorded operating revenue of JPY 121,134 million (0.4% increase from the same period of the previous fiscal year (i.e., year on year)), and operating expenses were JPY 54,111 million (6.3% year-on-year increase). As a result, JPX recorded operating income of JPY 69,535 million (3.1% year-on-year decrease) and income before income tax of JPY 70,786 million (3.0% year-on-year decrease).

In addition, net income attributable to owners of the parent company after tax was JPY 49,057 million (2.8% year-on-year decrease).

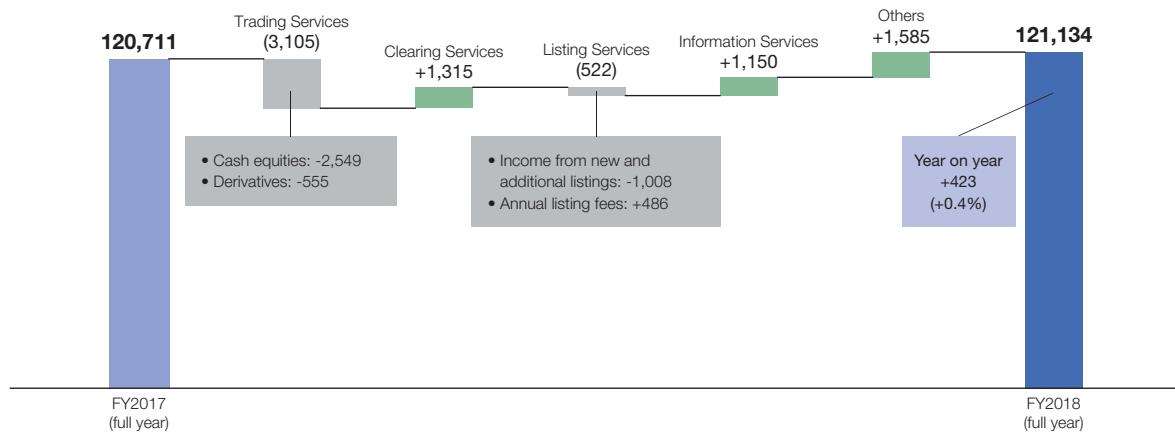
■ Consolidated Statement of Income

Operating Revenue

Operating revenue in FY2018 increased by 0.4% to JPY 121,134 million from FY2017.

Operating Revenue

(JPY mil.)



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Operating Revenue

	FY2014	FY2015	FY2016	FY2017	FY2018	
	Amount (JPY mil.)	Ratio				
Trading Services Revenue	48,698	52,471	45,703	51,766	48,660	40%
Transaction Fees	40,221	43,294	36,523	42,430	39,248	
Cash Equities	28,705	30,783	26,168	30,652	28,084	72% ¹
Derivatives	11,515	12,510	10,354	11,777	11,163	28% ¹
TOPIX Futures	1,816	1,934	1,841	2,106	2,031	
Nikkei 225 Futures (incl. Nikkei 225 mini)	4,382	5,136	4,231	4,691	4,523	
Nikkei 225 Options	3,374	3,543	2,834	3,149	2,563	
10-year JGB Futures	1,679	1,597	1,329	1,672	1,945	
Others	261	298	117	157	99	
Basic Fees	1,067	1,061	1,044	1,043	1,017	
Access Fees	4,730	5,165	4,985	4,851	4,800	
Trading System Facilities Usage Fees	2,600	2,854	3,066	3,341	3,499	
Others	79	95	84	98	95	
Clearing Services Revenue	20,092	23,140	21,454	23,473	24,788	20%
Listing Services Revenue	12,249	13,250	12,903	14,547	14,025	12%
Initial/Additional Listing Fees	4,762	5,330	4,317	5,002	3,994	
Annual Listing Fees	7,486	7,919	8,586	9,544	10,030	
Information Services Revenue	16,311	17,706	18,112	19,878	21,029	17%
Others	8,815	8,208	9,711	11,045	12,630	10%
Total	106,167	114,776	107,885	120,711	121,134	100%

Note: 1. Figures indicate percentage of Transaction Fees.

Reference: Major Stock Indexes

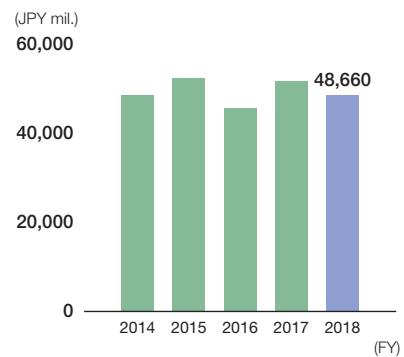
As of March 31	FY2014	FY2015	FY2016	FY2017	FY2018
TOPIX	1,543.11 pts.	1,347.20 pts.	1,512.60 pts.	1,716.30 pts.	1,591.64 pts.
Nikkei 225	JPY 19,206.99	JPY 16,758.67	JPY 18,909.26	JPY 21,454.30	JPY 21,205.81
JPX-Nikkei 400	14,022.96 pts.	12,161.79 pts.	13,522.45 pts.	15,180.09 pts.	14,176.82 pts.

1. Trading services revenue

Trading services revenue comprises “Transaction Fees” based on the value of securities traded or volume of derivatives traded, “Basic Fees” based on the types of the trading participant’s trading qualification, “Access Fees” based on the number of orders, and “Trading System Facilities Usage Fees” based on the types of trading system facilities used.

During FY2018, trading services revenue decreased 6.0% year on year to JPY 48,660 million, due mainly to a decrease in transaction fees resulting from a year-on-year decrease in trading volumes of cash equities from the previous year.

Trading services revenue

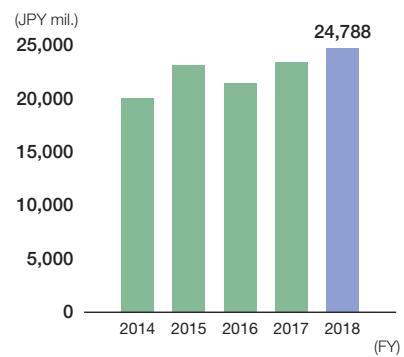


2. Clearing services revenue

Clearing services revenue comprises clearing fees related to the assumption of obligations of financial instrument transactions carried out by Japan Securities Clearing Corporation.

During FY2018, clearing services revenue increased 5.6% year on year to JPY 24,788 million.

Clearing services revenue

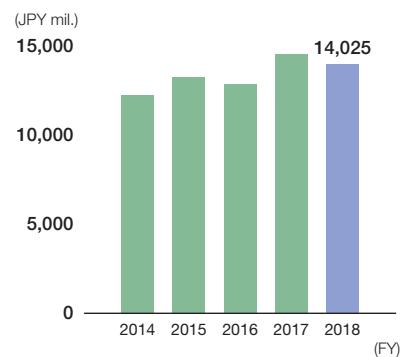


3. Listing services revenue

Listing services revenue comprises “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” received from listed companies based on their market capitalization.

During FY2018, listing services revenue decreased 3.6% year on year to JPY 14,025 million due to decreases in initial/additional listing fees, mainly resulting from a year-on-year decrease in the amount raised by listed companies.

Listing services revenue



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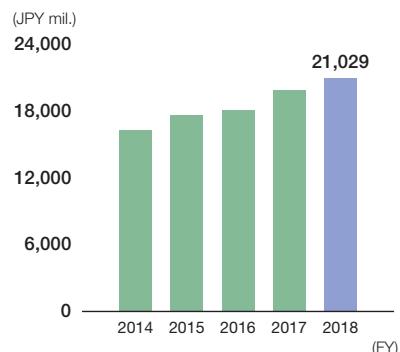
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4. Information services revenue

Information services revenue comprises revenue related to the provision of market information to information vendors, etc., which is market information fees, revenue related to the index business, and revenue related to the provision of corporate action information and other information.

During FY2018, information services revenue increased 5.8% year on year to JPY 21,029 million due mainly to increases in market information fees and index business revenue.

Information services revenue



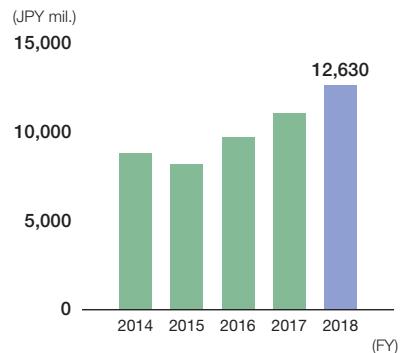
5. Other operating revenue

Other operating revenue includes the following main 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.;
- Revenue from provision of trading system and other services; and
- Revenue from system development and operations conducted by consolidated subsidiary TOSHO SYSTEM SERVICE CO., LTD.

During FY2018, other operating revenue increased 14.4% year on year to JPY 12,630 million due mainly to increases in revenue from usage fees for arrownet and usage fees related to co-location services.

Other operating revenue



Operating expenses

During FY2018, personnel expenses increased 1.6% year on year to JPY 16,584 million.

Rent expenses on real estate increased by 0.9% year on year to JPY 3,939 million.

System maintenance and operation expenses include expenses related to maintenance and management/operations of various systems including the cash equities and derivatives trading systems.

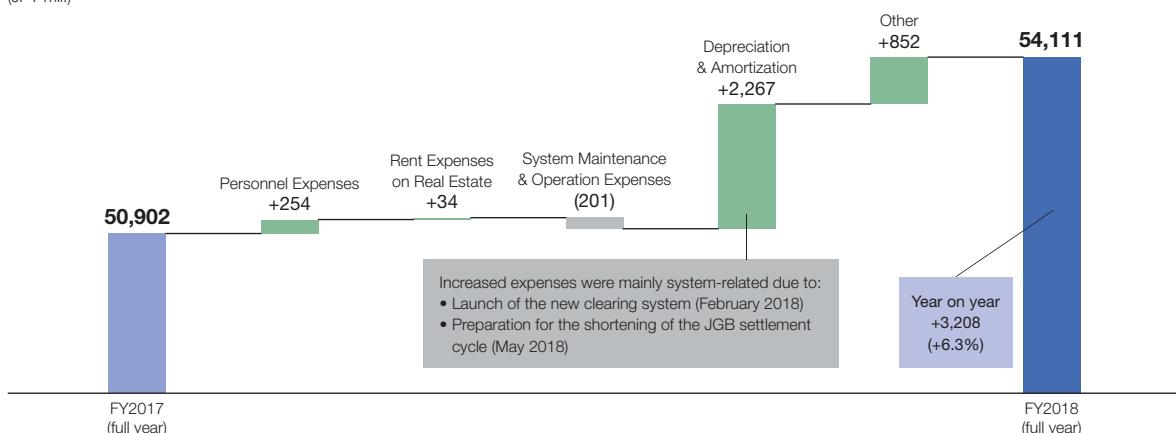
System maintenance and operation expenses decreased 1.7% year on year to JPY 11,898 million.

Depreciation and amortization increased by 24.0% year on year to JPY 11,699 million.

Other operating expenses increased by 9.3% year on year to JPY 9,989 million.

Operating Expenses

(JPY mil.)



Operating Expenses

(JPY mil.)

	FY2014	FY2015	FY2016	FY2017	FY2018
Personnel Expenses	15,265	16,437	15,614	16,329	16,584
Rent Expenses on Real Estate	5,959	4,620	4,062	3,904	3,939
System Maintenance and Operation Expenses	9,947	11,923	10,813	12,100	11,898
Depreciation and Amortization	10,803	9,973	10,983	9,431	11,699
Other	10,888	7,970	8,711	9,136	9,989
Total	52,863	50,925	50,185	50,902	54,111

Note: Starting FY2015, a portion of expenses relating to subsidiary Tosho System Service Co., Ltd. is included under "System Maintenance & Operation Expenses" rather than "Other."

Basic Policy for Allocation of Profit

JPX adopts a dividend policy with a target payout ratio of about 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 dividends for FY2019 are planned to be JPY 52 per share (JPY 26 per share at the end of the second quarter).

(As of July 31, 2019)

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Consolidated Statement of Financial Position

		(JPY mil.)				(JPY mil.)	
		As of March 31, 2018	As of March 31, 2019			As of March 31, 2018	As of March 31, 2019
Assets				Liabilities and equity			
Current assets				Liabilities			
Cash and cash equivalents	78,999	63,891		Trade and other payables	5,591	4,421	
Trade and other receivables	11,841	11,402		Loans payable	32,500	32,500	
1 Clearing business financial assets	37,311,964	49,886,377		1 Clearing business financial liabilities	37,311,964	49,886,377	
2 Specified assets for deposits from clearing participants	3,621,319	3,795,086		2 Deposits from clearing participants	3,621,319	3,795,086	
3 Specified assets for legal guarantee funds	491	490		3 Legal guarantee funds	491	490	
Income tax receivables	6,191	6,311		4 Trading participant security money	7,402	8,384	
Other financial assets	86,700	113,100		Income tax payables	14,253	9,676	
Other current assets	1,814	1,979		Other current liabilities	7,599	7,136	
Total current assets	41,119,322	53,878,639		Total current liabilities	41,001,120	53,744,073	
Non-current assets				Non-current liabilities			
Property and equipment	5,209	7,293		Loans payable	19,940	19,946	
Goodwill	67,374	67,374		Retirement benefit liabilities	7,624	7,964	
Intangible assets	34,208	33,435		Other non-current liabilities	3,392	2,914	
Retirement benefit assets	5,956	5,872		Deferred tax liabilities	4,526	3,055	
Investments accounted for using the equity method	10,407	12,474		Total non-current liabilities	35,484	33,882	
5 Specified assets for default compensation reserve funds	27,948	27,948		Total liabilities	41,036,604	53,777,955	
Other financial assets	36,252	26,634		Equity			
Other non-current assets	5,774	6,071		Share capital	11,500	11,500	
Deferred tax assets	3,887	3,661		Capital surplus	39,716	39,716	
Total non-current assets	197,019	190,766		Treasury shares	(953)	(1,213)	
Total assets	41,316,341	54,069,405		Other components of equity	10,816	7,688	
6 Retained earnings	212,691	227,317		6 Total equity	279,736	291,450	
Total equity	273,771	285,009		Total liabilities and equity	41,316,341	54,069,405	

- 1** The clearing business financial assets/liabilities pertaining to derivative transactions, etc. as of the term end of Japan Securities Clearing Corporation (JSCC), the financial instruments clearing organization.
- 2** Collateral that JSCC requires clearing participants to deposit to cover any loss JSCC incurs in the event a clearing participant defaults.
- 3** Collateral that TSE and OSE require trading participants to deposit to cover any loss incurred by an entrustor of securities trading, etc. in the event a trading participant defaults.
- 4** Collateral that TSE and OSE require trading participants to deposit to cover any loss TSE and OSE incur in the event a trading participant defaults.
- 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

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019 (JPY mil.)
Revenue		
Operating revenue	120,711	121,134
Other revenue	271	248
Total revenue	120,983	121,383
Expenses		
Operating expenses	50,902	54,111
Other expenses	15	16
Total expenses	50,918	54,127
Share of income of investments accounted for using the equity method	1,726	2,279
Operating income	71,791	69,535
Financial income	1,282	1,333
Financial expenses	83	82
Income before income tax	72,990	70,786
Income tax expense	22,355	21,253
Net income	50,634	49,533
Net income attributable to		
Owners of the parent company	50,484	49,057
Non-controlling interests	149	476
Net income	50,634	49,533
Earnings per share		
Basic (JPY)	94.17	91.58
Diluted (JPY)	—	—

Consolidated Statement of Comprehensive Income

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019 (JPY mil.)
Net income	50,634	49,533
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	(787)	87
Remeasurements of defined benefit plan	511	(102)
Share of other comprehensive income of investments accounted for using the equity method	0	(0)
Other comprehensive income, net of tax	(276)	(14)
Comprehensive income	50,357	49,518
Comprehensive income attributable to		
Owners of the parent company	50,208	49,042
Non-controlling interests	149	476
Comprehensive income	50,357	49,518

4. Financial and Corporate Data

> Review of Operations and Financial Condition Consolidated Statement of Financial Position Consolidated Statement of Income/Consolidated Statement of Comprehensive Income
Consolidated Statement of Changes in Equity Consolidated Statement of Cash Flows Economic Data/Market Data Corporate Data

Consolidated Statement of Changes in Equity

	Equity attributable to owners of the parent company				(JPY mil.)
	Share capital	Capital surplus	Treasury shares	Other components of equity	
Balance as of April 1, 2017	11,500	59,722	(13,506)	11,604	—
Net income	—	—	—	—	—
Other comprehensive income, net of tax	—	—	—	(787)	511
Total comprehensive income	—	—	—	(787)	511
Acquisitions of treasury shares	—	(2)	(7,452)	—	—
Retirement of treasury shares	—	(20,003)	20,003	—	—
Dividends paid	—	—	—	—	—
Transfer from other components of equity to retained earnings	—	—	—	—	(511)
Other	—	—	1	—	—
Total transactions with the owners	—	(20,005)	12,552	—	(511)
Balance as of March 31, 2018	11,500	39,716	(953)	10,816	—
Net income	—	—	—	—	—
Other comprehensive income, net of tax	—	—	—	87	(102)
Total comprehensive income	—	—	—	87	(102)
Acquisitions of treasury shares	—	—	(264)	—	—
Dividends paid	—	—	—	—	—
Transfer from other components of equity to retained earnings	—	—	—	(3,215)	102
Other	—	—	4	—	—
Total transactions with the owners	—	—	(260)	(3,215)	102
Balance as of March 31, 2019	11,500	39,716	(1,213)	7,688	—

	Equity attributable to owners of the parent company				(JPY mil.)
	Other components of equity	Retained earnings	Total	Non-controlling interests	Total equity
Balance as of April 1, 2017	11,604	188,634	257,955	5,815	263,770
Net income	—	50,484	50,484	149	50,634
Other comprehensive income, net of tax	(276)	—	(276)	—	(276)
Total comprehensive income	(276)	50,484	50,208	149	50,357
Acquisitions of treasury shares	—	—	(7,454)	—	(7,454)
Retirement of treasury shares	—	—	—	—	—
Dividends paid	—	(26,938)	(26,938)	—	(26,938)
Transfer from other components of equity to retained earnings	(511)	511	—	—	—
Other	—	—	1	—	1
Total transactions with the owners	(511)	(26,427)	(34,391)	—	(34,391)
Balance as of March 31, 2018	10,816	212,691	273,771	5,965	279,736
Net income	—	49,057	49,057	476	49,533
Other comprehensive income, net of tax	(14)	—	(14)	—	(14)
Total comprehensive income	(14)	49,057	49,042	476	49,518
Acquisitions of treasury shares	—	—	(264)	—	(264)
Dividends paid	—	(37,544)	(37,544)	—	(37,544)
Transfer from other components of equity to retained earnings	(3,113)	3,113	—	—	—
Other	—	—	4	—	4
Total transactions with the owners	(3,113)	(34,430)	(37,805)	—	(37,805)
Balance as of March 31, 2019	7,688	227,317	285,009	6,441	291,450

Consolidated Statement of Cash Flows

Consolidated Statement of Cash Flows

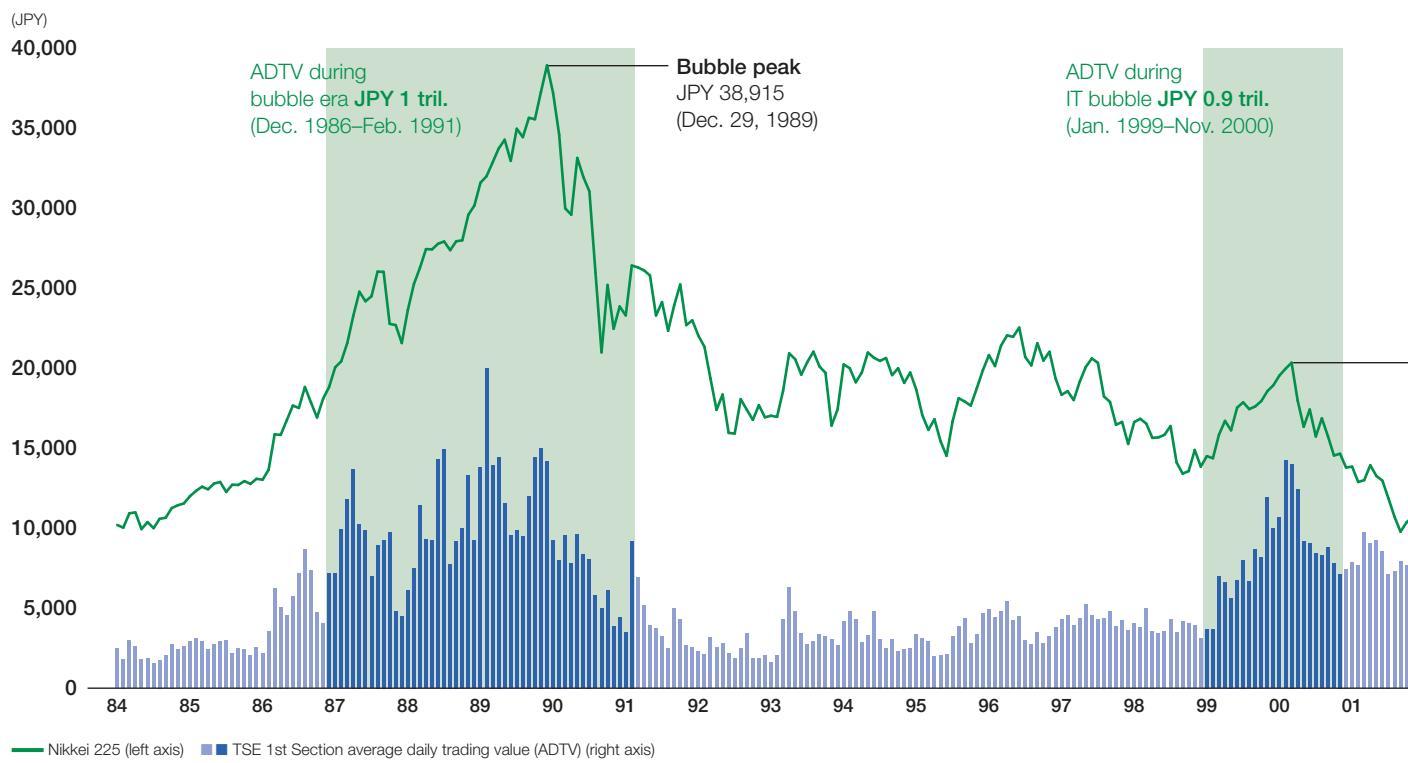
	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019	(JPY mil.)
Cash flows from operating activities			
Income before income tax	72,990	70,786	
Depreciation and amortization	10,114	12,196	
Financial income	(1,282)	(1,333)	
Financial expenses	76	75	
Share of income of investments accounted for using the equity method	(1,726)	(2,279)	
Gains on sale of property and equipment	(50)	—	
(Increase) decrease in trade and other receivables	(2,067)	439	
Increase (decrease) in trade and other payables	877	(628)	
(Increase) decrease in retirement benefit assets	(753)	83	
Increase (decrease) in retirement benefit liabilities	267	339	
Other	1,990	(1,073)	
Subtotal	80,436	78,606	
Interest and dividends received	1,493	1,546	
Interest paid	(76)	(75)	
Income taxes paid	(15,835)	(27,298)	
Cash flows generated from operating activities	66,018	52,778	
Cash flows from investing activities			
Payments into time deposits	(105,700)	(147,300)	
Proceeds from withdrawal of time deposits	93,800	120,100	
Purchase of property and equipment	(1,554)	(4,143)	
Purchase of intangible assets	(10,537)	(9,542)	
Purchase of investment securities	(2,000)	—	
Proceeds from sales of investment securities	—	9,741	
Proceeds from redemption of investment securities	—	1,000	
Other	(172)	77	
Cash flows used in investing activities	(26,164)	(30,066)	
Cash flows from financing activities			
Proceeds from loans payable	20,000	9,000	
Repayments of loans payable	(20,000)	(9,000)	
Dividends paid	(26,938)	(37,544)	
Purchase of treasury shares	(7,454)	(264)	
Cash flows used in financing activities	(34,393)	(37,809)	
Net increase (decrease) in cash and cash equivalents	5,460	(15,097)	
Cash and cash equivalents at the beginning of the year	73,553	78,999	
Effect of changes in exchange rate on cash and cash equivalents	(14)	(10)	
Cash and cash equivalents at the end of the year	78,999	63,891	

4. Financial and Corporate Data

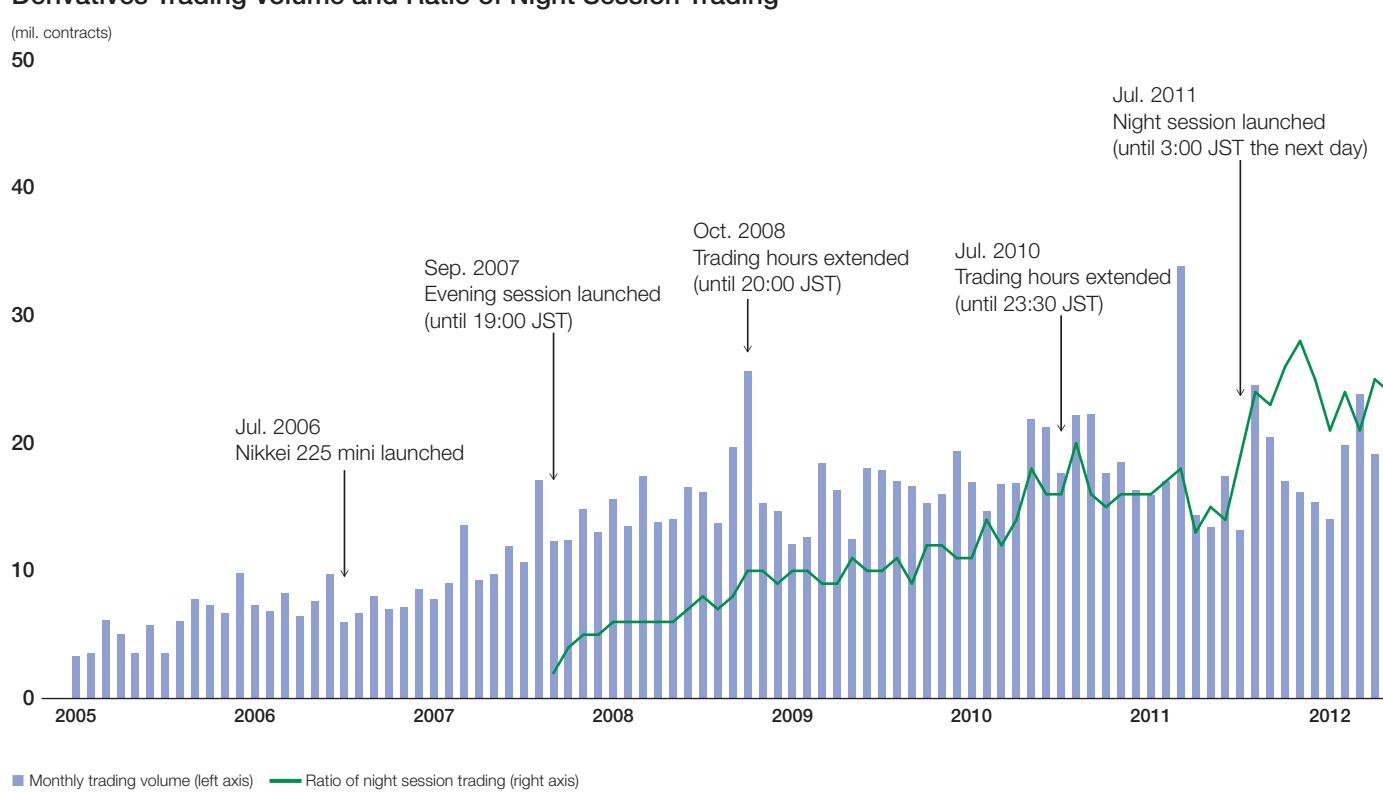
> Review of Operations and Financial Condition Consolidated Statement of Financial Position Consolidated Statement of Income/Consolidated Statement of Comprehensive Income
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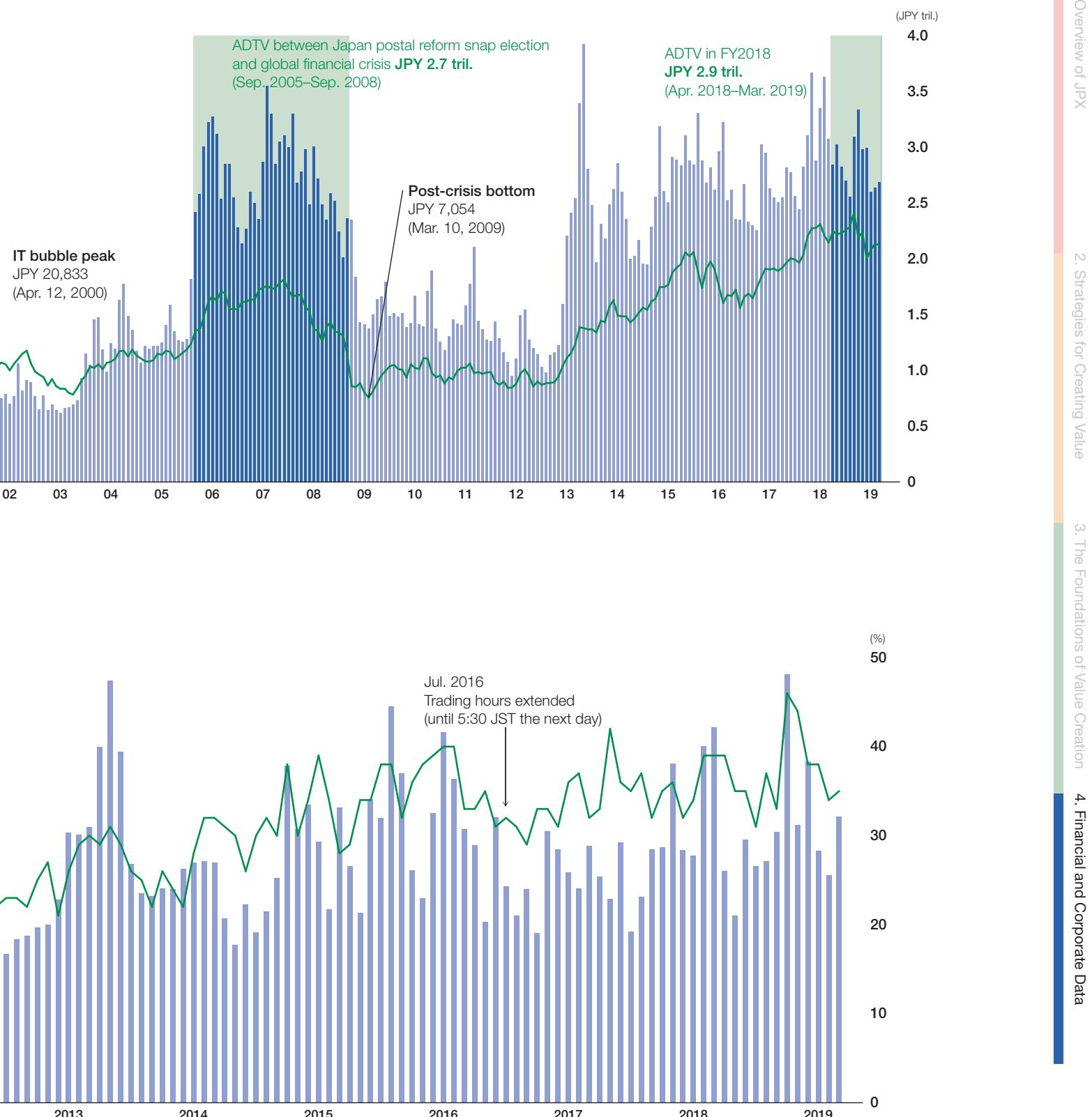
Economic Data/Market Data

Stock Market Performance



Derivatives Trading Volume and Ratio of Night Session Trading

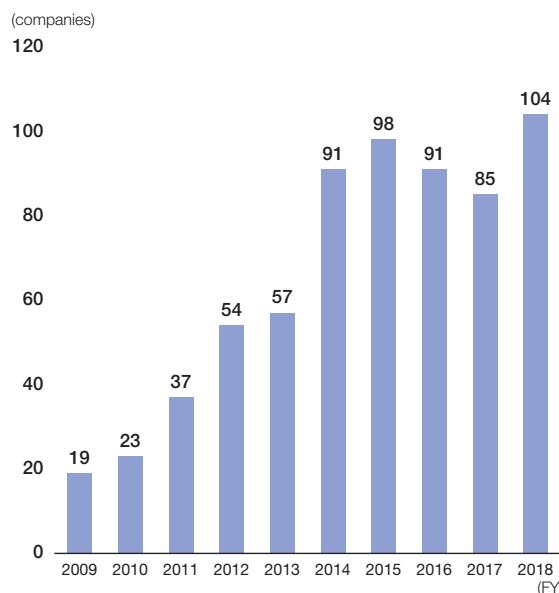




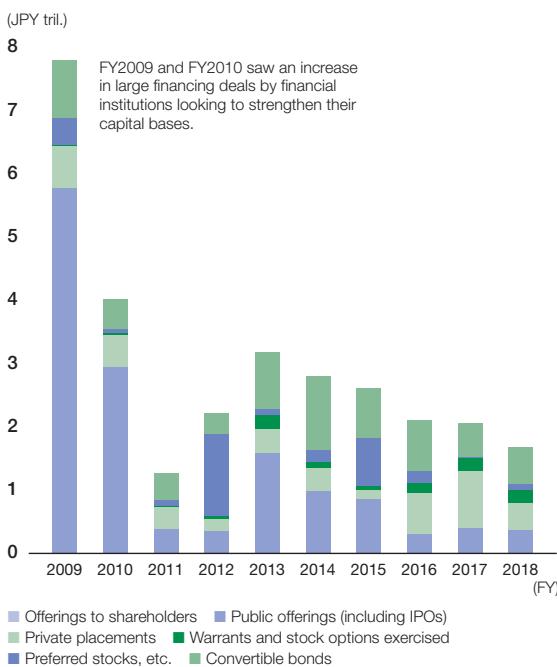
4. Financial and Corporate Data

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IPOs in Japan

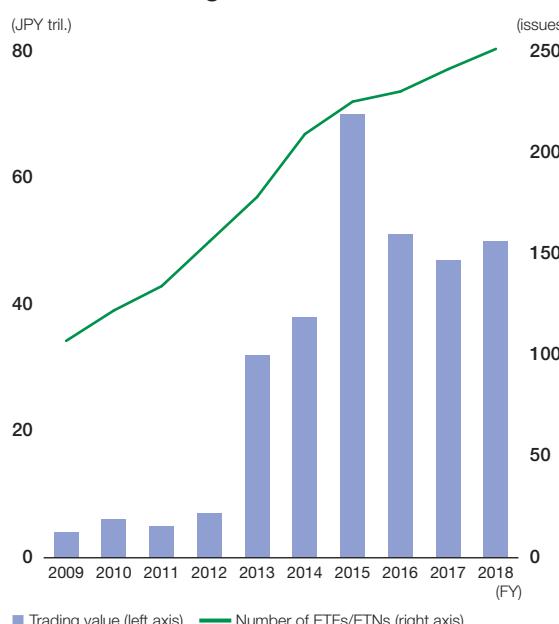


Financing by Listed Companies

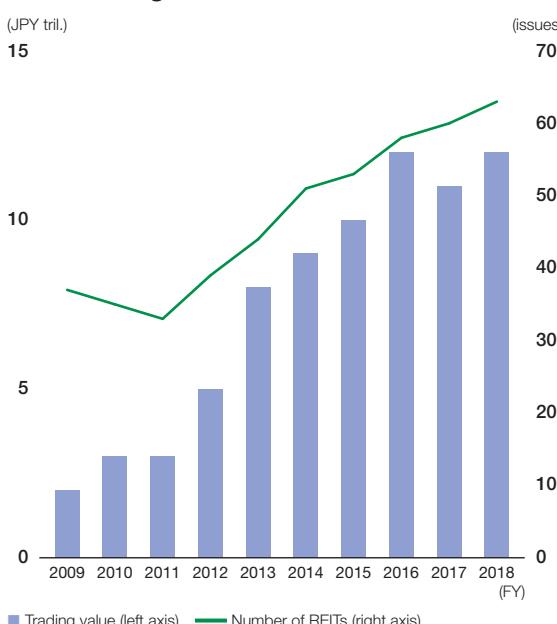


Note: Excluding straight bonds (domestic and foreign)

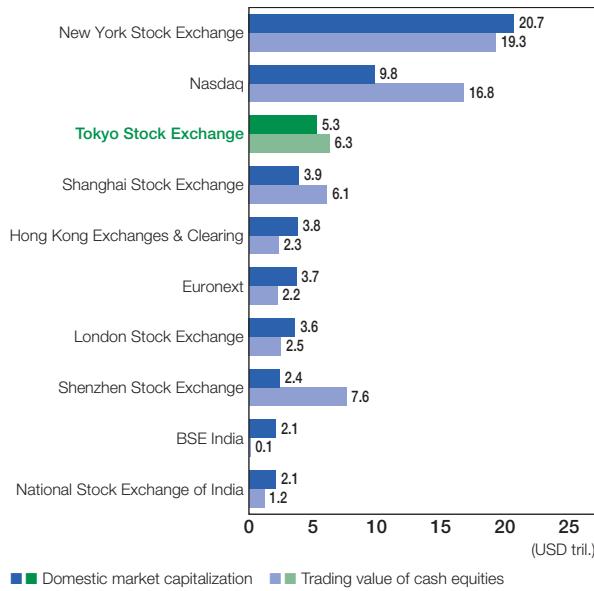
ETF/ETN Trading Value



REIT Trading Value



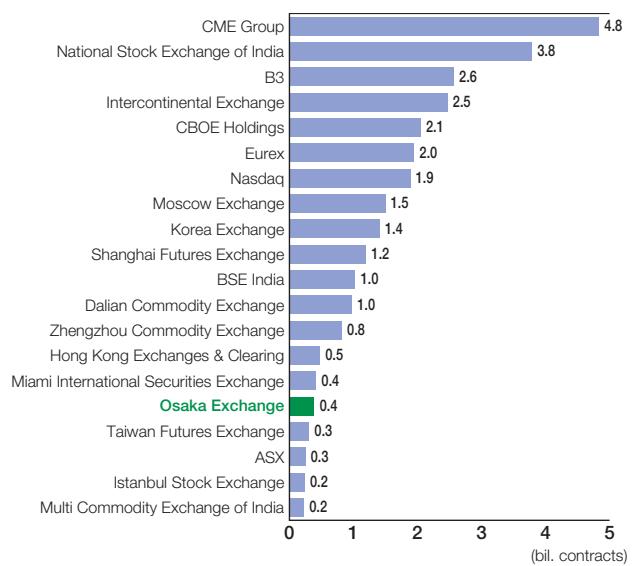
Domestic Market Capitalization, Stock Trading Value Rankings



Note: Market capitalization of domestic stocks as of end of Dec. 2018
Stock trading value includes only auction and electronic trades in 2018.

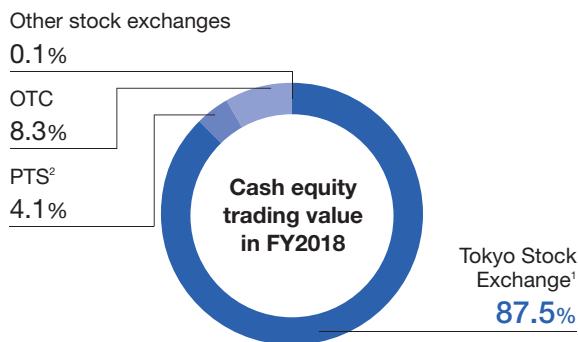
Source: WFE statistics

Derivatives Volume Rankings



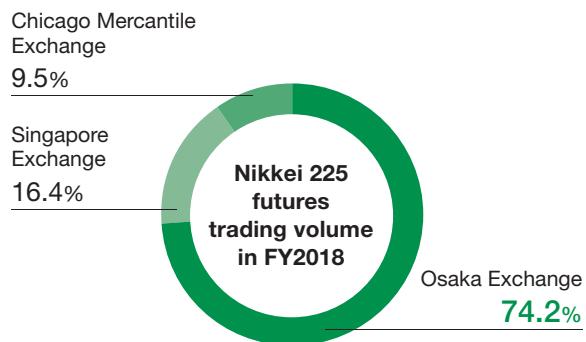
Source: Futures Industry Association, Trading Volume in 2018

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



Sources: Statistics from each exchange

4. Financial and Corporate Data

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Corporate Data

(as of March 31, 2019)

Corporate Information

Company Name:	Japan Exchange Group, Inc.
Number of Directors:	14 directors, 9 executive officers (as of June 19, 2019)
Location of Head Office:	2-1 Nihombashi-kabuto-cho, Chuo-ku, Tokyo 103-8224, Japan
Foundation:	April 1, 1949
Amount of Capital:	JPY 11,500 mil.

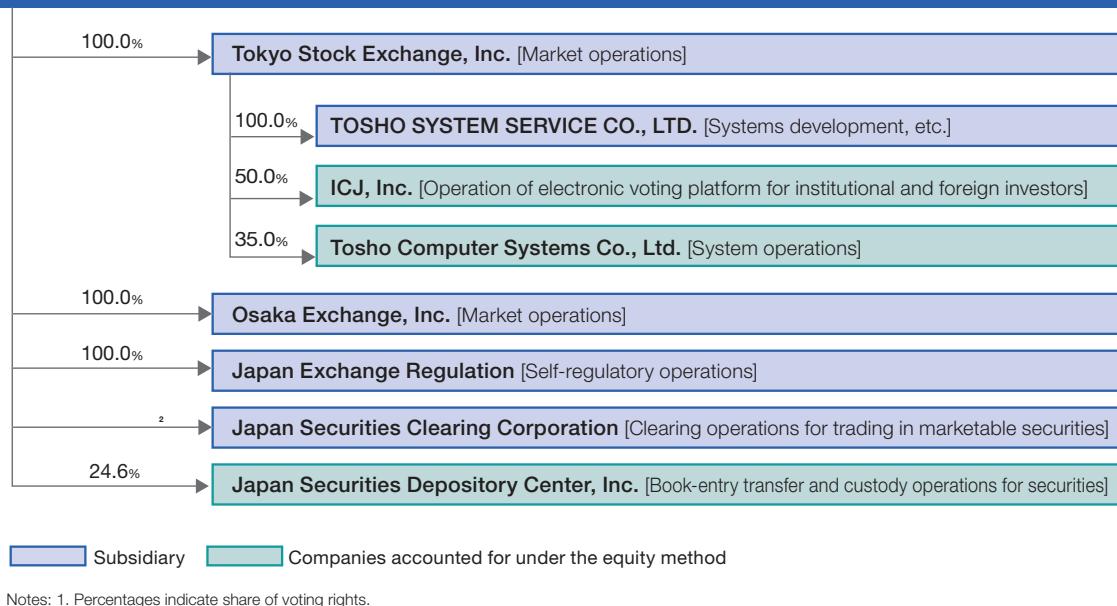
Number of Employees:	1,110 (consolidated)
Japan Exchange Group, Inc.	189
Tokyo Stock Exchange, Inc.	423
Osaka Exchange, Inc.	130
Japan Exchange Regulation	190
Other consolidated subsidiaries	178
Business Description:	Management and administration of financial instruments exchanges and other incidental businesses

Information on the Corporate Group

JPX comprises five subsidiaries and three companies accounted for under the equity method, and its primary operations are the provision and operation of markets for exchange-traded financial instruments. Specifically, these include operations such as (i) providing market facilities for

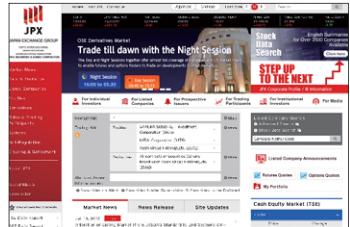
securities trading, securities index futures trading, and securities options trading, (ii) publicizing market quotations and ensuring fairness of securities trading, and (iii) providing financial instruments obligation assumption services.

Japan Exchange Group, Inc. [Management and administration of subsidiary financial instruments exchanges and a subsidiary self-regulatory organization]



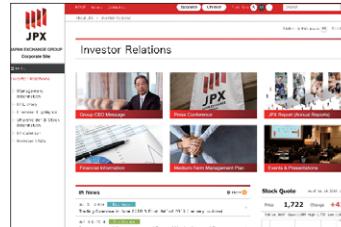
Notes: 1. Percentages indicate share of voting rights.
2. Class A shares: 99.2% / Class B shares: 100.0% / Class C shares: 60.4% / Class D shares: 52.9%

Website



About JPX

<https://www.jpx.co.jp/> (Japanese)
<https://www.jpx.co.jp/english/> (English)



Investor Relations

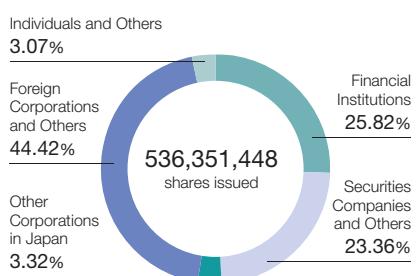
<https://www.jpx.co.jp/corporate/investor-relations/> (Japanese)
<https://www.jpx.co.jp/english/corporate/investor-relations/> (English)

Stock Information

Stock Code:	8697	Number of Shares per Share Unit:	100 shares
Listed Market:	Tokyo Stock Exchange (1st Section)	Number of Shares:	Total number of shares authorized to be issued: 2,180,000,000 shares
Business Year:	April 1 to March 31	Total number of shares issued:	536,351,448 shares
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 Shareholders:	47,745

JPX's Shareholders

Distribution of Shareholders



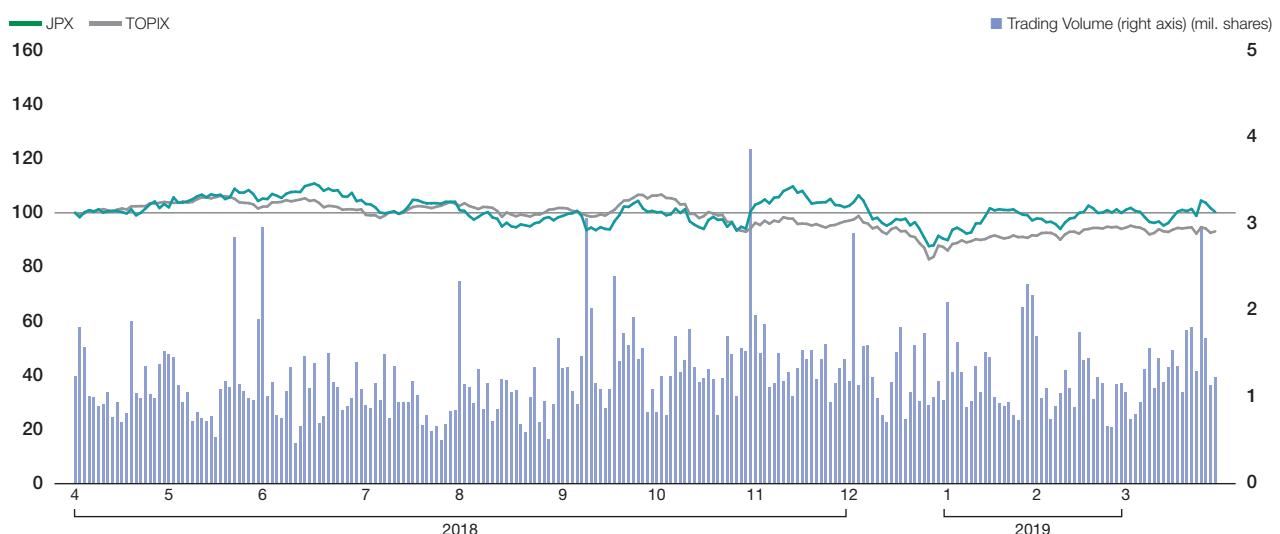
Major Shareholders

	No. of Shares Held	Shareholding Ratio (%)
1 The Master Trust Bank of Japan, Ltd. (Trust Account)	24,341,000	4.54
2 Japan Trustee Services Bank, Ltd. (Trust Account)	20,389,400	3.80
3 SMBC Nikko Securities Inc.	19,586,900	3.65
4 NORTHERN TRUST CO. (AVFC) SUB A/C NON TREATY	12,348,458	2.30
5 Japan Trustee Services Bank, Ltd. (Trust Account 7)	10,762,000	2.01
6 Japan Trustee Services Bank, Ltd. (Trust Account 5)	10,465,400	1.95
7 THE BANK OF NEW YORK 134104	9,809,900	1.83
8 Mizuho Securities Co., Ltd.	8,407,800	1.57
9 JP MORGAN CHASE BANK 385151	8,356,207	1.56
10 STATE STREET BANK WEST CLIENT-TREATY 505234	7,924,296	1.48

Notes: 1: JPX does not hold any treasury shares.

2: Shareholding ratios are calculated based on a total that includes the JPX shares held by the share delivery trust framework ESOP and the trust account relating to the stock compensation system for directors (718,620 shares).

JPX Stock Price (rebased to 100 on April 2, 2018)



About JPX Logo

The logo expresses dynamic and global growth and development.

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



JAPAN EXCHANGE GROUP

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

JAPAN EXCHANGE GROUP, INC.

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