

- Your Exchange of Choice -

Update of 2nd Medium-Term Management Plan

FY2016

FY2018

April 27, 2018 Japan Exchange Group, Inc.

Overview of 2nd Medium-Term Management Plan (FY2016 – FY2018)

- Set realization of well-balanced business portfolio as mid- to long-term vision
- Enhance revenue diversification and investment to improve stability
- Aim to accumulate operational revenue/net income via enhanced strategic investments

Concept **Core Initiatives** Satisfying diverse investor needs and encouraging mid- to long-term asset building Mid- to Long-Term Vision Well-balanced business portfolio Supporting listed companies in enhancing corporate value Highly liquid cash equities equities markets that offer a broad range of attractive products market to various investors business Fulfilling social mission by reinforcing market Maintain and infrastructure enhance trust in the market New **Derivatives** business market including OTC, **V** Creating new fields of exchange business market data, and business IT services Derivatives markets New business segments that offer deep liquidity across that accommodate diverse multiple asset classes investor needs and support

stable market operations

Progress in the First Two Years (FY2016 & FY2017)

Satisfying diverse investor needs and encouraging mid- to long-term asset building Promote asset building by retail investors **Diversify derivatives lineup** List attractive products Attract diverse institutional participants **Develop index and information business**

- No. of ETF holders up by 170K (vs the end of Jul. '15)
- ► Launched four new products, including TSE Mothers Index Futures
- ▶ Total NAV of ETFs exceeded JPY 30 tril.
- Listed four infrastructure funds
- Attracted investment in Japanese market centered on foreign investors
- ► Developed JPX-Nikkei Mid Small, JPX/S&P Capex & Human Capital index, etc.

Supporting listed companies in enhancing corporate value

Enhance effectiveness of corporate governance

Ensure stable supply of risk money

- Approx. 88% of companies appointing two or more independent directors (TSE 1st Sec. / as of Jul. '17)
- ▶ 83 IPOs

Fulfilling social mission by reinforcing market infrastructure

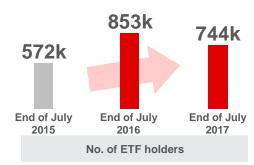
Strengthen BCP and cybersecurity Enhance risk management on market operation Support for the registration regime of HFTs **Design next-generation trading systems** Expand clearing and settlement services **Enhance self-regulatory functions**

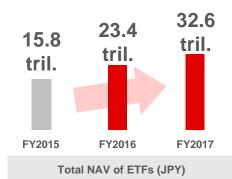
- Formulated long-term backup scheme and strengthened BCP
- Built comprehensive risk management framework
- Improved client support for smooth registration of HFTs
- Clarified concepts in trading scheme through working group deliberations
- Replaced the clearing system and prepared for shortening settlement cycles
- Adopted market surveillance leveraging Al

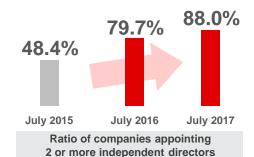
Creating new fields of exchange business

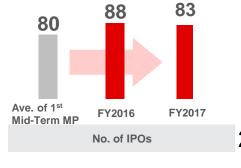
Enter into new business fields Discuss utilization of fintech Reinforce a foundation for business

- Provided trading system to TOCOM
- ► Took further steps to improve the ETF creation/redemption process
- Launched consortium for POC testing of DLT across the financial industry
- Engaged in fostering more creativity and innovation within the organization
- Advanced work style reforms









Basic Policy for Updates

Our most important mission is to stably provide market infrastructures that satisfy users without being affected by uncertainties that remain present in global politics and economy

- Review our implementation plan to accomplish 2nd Medium-Term Management Plan based on external changes, anticipated challenges, and progress and effects to date
- Modify the implementation plan with an eye on the potential changes brought about by fintech while valuing maintenance and reinforcement of market reliability and efficiency
- Conduct research and reinforce investments for new missions such as promoting ESG investments, strengthening of human resources foundation, and utilizing fintech for the next medium-term management plan

Updates to Core Initiatives

Ι	Satisfying diverse investor needs and
	encouraging mid- to long-term asset building

- > Enhance efforts to encourage asset formation by retail investors
- > Maintain and strengthen competitiveness of derivatives market
- > Strengthen functions of our cash market, especially of ETF market
- > Develop new information services such as providing API
- Supporting listed companies in enhancing corporate value
- > Promote actions to improve corporate governance of Japanese listed companies
- > Examine and improve the system for stable supply of risk money
- > Promote IPOs and enhance actions to diversify listed products
- Fulfilling social mission by reinforcing market infrastructure
- > Strengthen BCP, risk management, and cyber security
- > Enhance HFT monitoring function and HFT support
- > Work on shortening the settlement cycle of JGBs and stocks
- > Supervise listed companies to prevent corporate scandals and their recurrence
- Creating new fields of exchange business
- > Promote awareness of ESG investment in Japan as a participant in the SSE Initiative
- > Enhance utilization of fintech and monitor technological trends
- > Strengthen foundations for business and human resources

Core Initiatives (FY2018)

Ι

Satisfying diverse investor needs and encouraging mid- to long-term asset building

Overview

- > Develop approaches and enhance efforts in improving financial literacy to expand investor base
- > Enhance competitiveness of OSE derivatives market as a future growth driver
- Generate momentum in ETF market that contributes to asset building and reinforce TSE cash market

Core Initiatives

*Major revisions are underlined.

- 1 Promote asset building by retail investors
 - Develop approaches and enhance efforts to expand investor base
 - Promote education on finance and economy to improve financial literacy
 - Improve retail investors' awareness of derivatives
- Generate momentum in ETF market and reinforce TSE cash market
 - Revise schemes to enhance functions of our cash equities market and promote system development
 - Adopt ETF market making scheme and improve liquidity
 - Improve the ETF creation/redemption process
 - Attract new investors for further market liquidity

- 2 Enhance competitiveness of OSE derivatives market
 - Enhance competitiveness in light of international trends
 - Increase awareness and trading of new derivatives products
 - Improve liquidity by attracting new investors
 - Advance research and discussion of comprehensive exchange initiative
- 4 Develop index and information businesses
 - Promote JPX's indices to increase AUM linked to the indices and reinforce a sales/support team
 - Develop new indices to accommodate diverse user needs
 - Examine how to promote and expand information provision services

Supporting listed companies in enhancing corporate value

Overview

- Advance efforts to improve corporate governance in Japan
- > Encourage listed companies to incorporate investor perspectives in their management and to engage in constructive dialogue with investors
- > Offer support in listing of products that contribute to asset building and of stocks resulting from collaborative initiatives with regional financial institutions, etc.

Core Initiatives

- **Enhance effectiveness of corporate governance**
 - Review Japan's Corporate Governance Code and encourage efforts to enhance corporate governance
 - Promote constructive dialogue between listed companies and investors by developing environments conducive to the disclosure of non-financial information and encourage listed companies to adopt management policies that incorporate investors' perspectives

Ensure stable supply of risk money

- Offer support for IPOs by collaborating with regional financial institutions and relevant entities in the market
- Promote cross-border listings
- Review current sections for listed companies

List attractive products

- Expand ETF lineup to encompass various asset classes
- Aid in developing and bringing new listings to the RFIT/Infrastructure Fund markets





Fulfilling social mission by reinforcing market infrastructure

Overview

- > Ensure market operation to prepare against wide area disaster and establish a backup center
- > Strengthen supervisory/monitoring and support systems in connection to the HFT registration regime
- > Work on shortening JGB and stock settlement cycles and promote replacement of their IT system

Core Initiatives

- Strengthen BCP, cybersecurity, and risk management
 - Enhance backup capabilities at Tokyo and Osaka bases as a precaution against wide area disaster
 - Establish and maintain backup center in the Kansai region
 - Employ better and more advanced cybersecurity
- **Expand clearing and settlement services and enhance** system infrastructure
 - Ensure smooth transition to shortened (T+1) settlement cycle for JGBs
 - Make sound progress to shorten settlement cycle (to T+2) for stocks
 - Advance efforts to replace cash products clearing system.
 - Improve service level of OTC clearing services

- Engage with and support HFTs in the adoption of the new registration regime
 - Strengthen market surveillance in connection to newly adopted HFT registration regime
 - Offer support to HFTs in connection to the registration regime
 - Attract new participants
 - Expand IT network connectivity services
- Reinforce and enhance self-regulatory operations
 - Apply AI technology to market surveillance
 - Promote listed company compliance with a focus on preventing new incidents and recurrence





Creating new fields of exchange business

Overview

- > Promote awareness of ESG investment in Japan as a participant in the SSE Initiative
- > Enhance utilization of fintech in business and study trends in digital/virtual currencies
- > Strengthen foundations for business and human resources to support and develop exchange businesses by having a firm grasp of external changes

Core Initiatives

Promote ESG investment

- Promote green and social bonds on a new disclosure platform
- Develop a disclosure environment for non-financial information such as ESG
- Promote infrastructure funds to encompass such areas as renewable energy
- Develop and propagate indices related to ESG

Strengthen foundations for HR

- Train and retain diverse personnel on a consistent basis by focusing on hiring talent of all experience levels
- Advance work style reforms by streamlining operations and harnessing the capabilities of diverse personnel

Enhance utilization of fintech in business

- Further promote industry-wide POC testing on utilization of Blockchain as a platform for R&D in the financial industry
- Research and monitor trends on digital/virtual currencies and ICOs
- Enhance operational efficiency with Artificial Intelligence (AI) and Robotics Process Automation (RPA)

Strengthen foundations for business

- Strengthen foundations for global business in the form of joint projects with international exchanges and technical assistance with systems and infrastructure development
- Improve functions of research and PR
- Enhance management from ESG viewpoint such as establishment of a special organization reporting to CEO

- Expect to achieve financial targets in the last fiscal year of 2nd Medium-Term Management Plan, provided that current market conditions will remain constant
- Development of new fields such as provision of a derivative trading system and reinforcement of OTC clearing and ETF market will contribute to the achievement

	Fiscal years du	Reference		
	FY2016	FY2017	FY2018 earnings forecast [*]	Targets in the last fiscal year of 2 nd MTMP (Compared with 1st MTMP) **2
Operating Revenue (JPY)	107.8 bil.	120.7 bil.	123.0 bil.	123.0 _{bil} . (+15.0 _{bil} .)
Net Income (JPY)	42.1 bil.	50.4 bil.	48.0 bil.	48.0bil. (+8bil.)
ROE	16.4%	19.0%	Approx.17%	Approx.17% Target 10% or more as a level maintained in the mid- to long term

^{*1} The consolidated earnings forecast for the fiscal year ending March 31, 2019 is base on the assumption that cash equities daily trading value is JPY 3.45 tril. and derivatives annual trading volume is 360 mil. contracts. The consolidated earnings forecast may deviate from this level by external environments such as market conditions and other factors.

^{*2} Estimates based on 3-year trading activities during 1st MTMP from FY 2013 to FY 2015 (cash equities daily trading value JPY 3.1 tril., derivatives annual trading volume 350 mil. contracts)

Maintain the overall framework of financial policies and mid- to long-term capital policy in 2nd Medium-Term Management Plan

Invest aggressively to pursue revenue/profit expansion and stability, while balancing sound financial health and shareholder returns, and thereby achieve sustainable development of the market.

Increase profits and expand stable revenue base

Increase investment (Total capex: approx. JPY 46 bil.)

Invest to expand derivatives and new business to grow revenues

Reinforce revenue base through diversifying business portfolio

Generate profit

Sustainable Market Development

Management focus

Financial Resilience

Secure financial base to ensure stable operations as public infrastructure provider

Shareholder Returns

- Aim for approx. 60% dividend payout ratio
- Flexibly consider further shareholder returns while securing growth capex

ROE susceptible to market conditions

5yr avg. ROE before BOJ easing (FY2008-FY2012) approx.5%*

3yr avg. ROE after BOJ easing (FY2013-FY2015) approx.16%

Regardless of market conditions

Target 10% ROE that is above capital costs over the mid- to long-term

*5-year average ROE for FY2008-FY2012 is based on combined net income and equity capital of TSE and OSE before business integration.

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