(Reference Translation)

JPX IR Day 2019



Clearing Services Strategies

Total smart exchange

Hironaga Miyama, President & CEO Japan Securities Clearing Corporation

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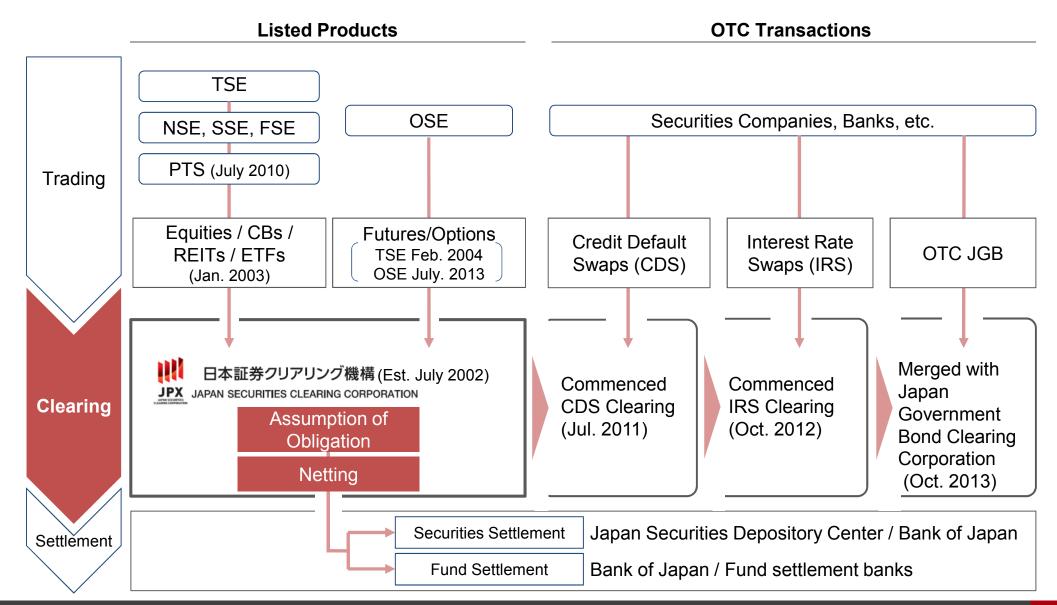


1. Outline of JSCC Business

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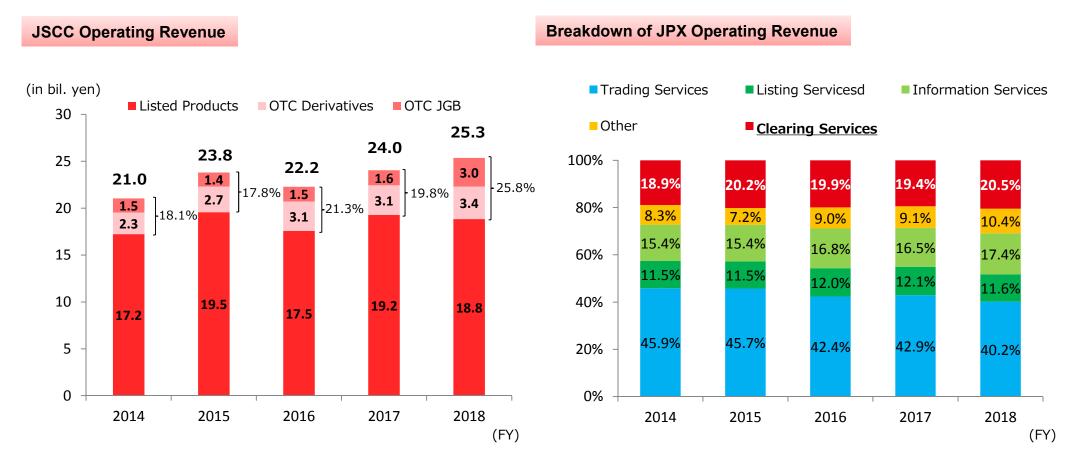
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 Started clearing services related to Listed Products in 2003, and expanded its clearing coverage to OTC Derivatives (CDS and IRS) and JGB Transactions.



(2) Status of JSCC Revenue

- JSCC's operating revenue is showing moderate expansion trend mainly from improvement of market conditions after start of Abe administration and expansion of clearing of OTC transactions.
- Share of OTC transactions (OTC Derivatives and OTC JGB) in operating revenue gradually increased, and reached approx. 26% in FY 2018.
- Share of revenue from clearing services in operating revenue of entire JPX steadily shifted at approx. 20%.





Management Policy and Core Strategies under JPX 3rd Medium-Term Management Plan

Sail to the future. Keep the market secure.

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

- ⇒Shorten stock settlement cycle & improve clearing services for better global competitiveness
- II Launch and develop a comprehensive exchange
 - ⇒Adopt measures for clearing commodity derivatives to raise reliability
- III Diversify and propel data services into the next generation
- IV Develop a foundation to support the future of our business and the society

1. Reinforcement of Basic Functions as CCP

JSCC Management Policy

2. Offering Clearing Services Responsive to New Needs

2. Future Business Strategies in each Clearing Service

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(1) Listed Products Clearing Service



- Providing Clearing Services to exchanges (Tokyo, Osaka, Nagoya, Fukuoka, Sapporo) and 2 PTSs (SBI Japannext PTS / Chi-X PTS). Clearing volume trend links to trading volume at exchanges.
- Reinforcement of basic functions and refinement of services contribute to vitalization of the market.

1. Reinforcement of Basic Functions as CCP

- Cut down on settlement risk through shortening of stock settlement cycle (T+2) (implementation scheduled on July 16).
- Sophisticate margin calculation method for Listed Derivatives to reinforce risk management.

2. Offering Clearing Services Responsive to New Needs

 As to application for ETF creation/redemption, CCP stands between investor side (securities companies, etc.) and issuer side (fund managers, etc.), thereby integrating and facilitating entire process of ETF creation/redemption from application to settlement (implementation targeted in Jan. 2021).

Benefit of introduction of clearing services related to ETF creation/redemption

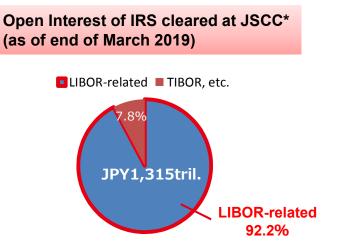
- 1 Reduce operation cost / risk
- ② Shorten period from cash equities procurement to ETF acquisition: T+4 or more ⇒ T+2
- ③ Simultaneous ETF sale and cash equity basket purchase becomes possible (currently ETF sale is not allowed until completion of settlement (T+4 or more))

Boost Activity

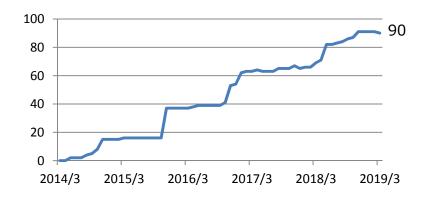
in the ETF Market

(2) OTC Derivatives Clearing Service

- JPX
- The number of clearing service users is steadily increasing since clearing launch, and the number of clients using JSCC's clearing service increased from 71 to 90 in FY 2018.
- FY 2018 operating revenue for OTC Derivatives increased approx. 10% comparing to the previous FY.
- 1. Reinforcement of Basic Functions as CCP
- To deal with interest rate benchmark reform, including discontinuation of calculation of LIBOR, that is the major benchmark for IRS, having discussion with market stakeholders on smooth transition to alternative benchmark for JSCC cleared trades (fallbacks).
- 2. Offering Clearing Services Responsive to New Needs
- Further expand clearing service users through various measures for enhancement of Clearing Participants' convenience.







* Volume on one-way basis

(3) OTC JGB Clearing Service

- JPX
- Through effect of shortening of settlement cycle (T+1) in May 2018 and increase in new users of clearing service since Dec. 2018, clearing volume in FY 2018 increased approx. 7% from the previous FY and JSCC's share in BOJ JGB DVP settlement reached 80%.
- Operating revenue increased approx. 90% comparing to the previous FY partly from fee structure revision implemented in May 2018.
- Expansion of clearing volume started from the latter half of FY 2018 is still continuing in this FY, and increase comparing to the previous FY can be expected.



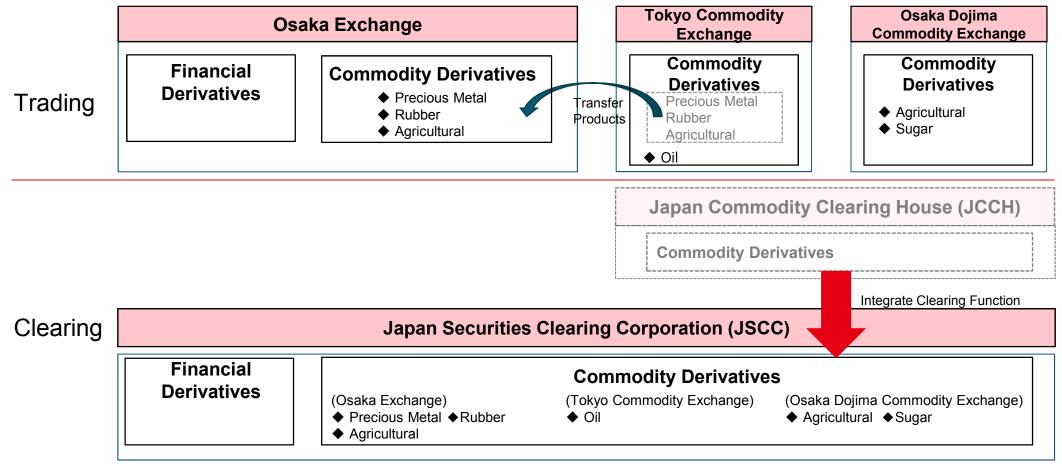
* Value on one-way basis.

(4) New Service (Launch Commodities Clearing)

JPX

2. Offering Clearing Services Responsive to New Needs

- For realization of comprehensive exchange targeted in FY2020, integrate clearing function of Japan Commodity Clearing House (JCCH) to JSCC, and launch Commodities clearing in JSCC.
- JSCC clears commodity transactions in an integrated fashion and reinforces risk management, thereby facilitate entry by financial sectors and pursue vitalization of commodity market through enhancement of reliability



Supplementary Information

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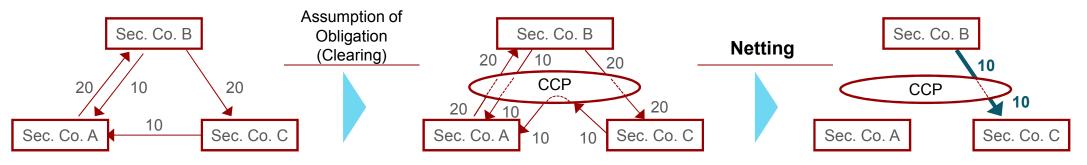
Roles of JSCC

Clearing of
TransactionsA Central Counterparty(CCP) acts as a counterparty to the seller and the buyer of a
transaction.



Netting

Netting allows for **reduced settlement amount** by offsetting the amounts to be paid and received to arrive at a single amount for each counterparty.



| Benefits of CCP Clearing | Reduced Credit Risk | Removes concerns over a transaction counterparty's credit risk |
|-----------------------------|--|---|
| | Reduced Systemic Risk | Reduces the possibility of a spillover of systemic risk from a participant default to other participants |
| | Improved Efficiency | Allows efficient use of securities/funds through netting Streamlines settlement operations |
| | Reliability in Participant Default Management | Reliable management for a participant default based on clear processes (Reliability demonstrated in handling of the past participant default) |

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