Summary of Q&A at JPX IR Day 2019 Japan Exchange Group, Inc.

(Held on July 3, 2019)

Cash Equities Market and Data Services Strategies

- Q1: In relation to the Review of Tokyo Stock Exchange (TSE) Cash Equity Market Structure, are you discussing possible changes to the fee structure? How will this review affect trading value?
- A1: (Miyahara) Given that the framework for the market sections has yet to be decided in detail, we have not given any consideration to the fee structure. We would like to carefully review the market sections, listing criteria, and other relevant matters to demonstrate clear market concepts for investors and to contribute to enhanced corporate value of listed companies. From this perspective, we will commit ourselves to developing an environment and rules that motivate investors to invest and allow them to trade more easily, thereby increasing trading value.
- Q2: Are there any estimates as to how much revenue will be generated from new data services?
- A2: (Miyahara) The services are still undergoing PoC testing, which means we have yet to formulate a fee structure. We will examine acceptable fee ranges as we go along while also giving due consideration to possibly having separate fee levels for startups based on the current levels for those charged to existing market information users.
- Q3: Will JPX data services be for mainly cash equities?
- A3: (Miyahara) These services will not be limited to cash equities, because there is ample need for derivatives data, as well.(Yamaji) We have started to provide a new data service for derivatives through Amazon Web Services cloud platform and would like to expand the service range going forward.
- Q4: Information vendors may also provide data services to startups. Do you have any concerns about this?
- A4: (Miyahara) As you are aware, some startups receive data from information vendors. We will set our service rate, taking into account their service fee structures.

Derivatives Market Strategies

- Q5: TOB for Tokyo Commodity Exchange (TOCOM) seems to be behind the original schedule. Could you provide an update on the delay?
- A5: (Yamaji) The original schedule shows that we would finalize our due diligence and launch a TOB at the end of June. However, there are some matters on which we have yet to reach an agreement. Considering that these are crucial points, we have decided not to be unnecessarily hasty but to take time to iron things out. That is why we are behind schedule. However, as announced the other day, the overall schedule remains unchanged for the time being.
- Q6: In terms of the development of a comprehensive exchange, are you exploring the possibility of, after TOCOM, cooperating with other companies that operate derivatives markets such as Tokyo Financial Exchange. (TFX)?
- A6: (Yamaji) There are other exchanges operating derivatives markets in Japan such as TFX, but we are not in talks at the moment. If such talks were to arise in the future, we are open to considering such matters. For the time being, however, we would rather focus on the business combination with TOCOM.
- Q7: TOCOM has been using JPX systems since before these recent developments with JPX. If you were to, hypothetically, strengthen cooperation with TFX, would there be any obstacles in terms of systems?
- A7: (Yamaji) TFX currently uses different trading and clearing systems. Therefore, if there were ever talk of strengthening cooperation with TFX, we would proceed with the knowledge that its systems differ from ours.
- Q8: There may be cases where JPX might provide its own capital to raise the creditworthiness of TOCOM. With a group-wide target of maintaining 10% ROE, will TOCOM also be held to such standards?
- A8: (Yamaji) JPX sets a hurdle rate for capital investments, which means we would approach the matter based on whether said target can be reached. TOCOM will become JPX's wholly-owned subsidiary, and we will likely design certain management accounting mechanisms to ensure the efficiency of investment in TOCOM. However, no concrete terms have been determined yet.

(Tabata) The process of carrying out a securities/derivatives transaction starts with trading, then clearing, and finally ends with settlement. As such, trading, clearing, and settlement are operated by separate organizations in JPX Group, but we evaluate the performance of the group as a whole and not that of each individual organization.

To improve the creditworthiness of TOCOM, clearing is a key factor. The credibility of clearing organizations and overall trading improve when the right combination of factors align, including margin to be deposited, back up funds in case of default, and monitoring of financial base of clearing participants. We are considering and designing a system where the entire process can be carried out properly.

- Q9: Although trading volume at Osaka Exchange (OSE) was the second highest on record in FY2018, net income of OSE was approximately JPY 5 billion. In consideration of Japan's GDP and other similar indicators, it seems to be rather small. What measures do you think are necessary to scale up the derivatives market in order to catch up with the cash market?
- A9: (Yamaji) Although the trading volume in FY2018 was the second highest on record, the variety of products available has been changing significantly since before then.
 As such, a mere increase in trading volume does not necessarily translate into favorable financial results.

In order for the derivatives market to catch up with the cash market, we need to, ultimately, increase its overall trading volume. For this purpose, it is important to attract more diverse investor participation in the market and to list a greater variety of products. Therefore, listing of commodity products on OSE via the business combination with TOCOM will be a sizable step toward that end.

- Q10: Financial results for commodity products will be disclosed separately by OSE and TOCOM after the business combination. How should investors assess profitability and returns of the commodity business?
- A10: (Tabata) We measure investment efficiency and financial performance across our group companies in terms of EVA under our internal management accounting system. As a small change in cost allocation will sometimes bring about large changes in figures for such efficiency and performance, we would like to use this method only internally. We will continue to consider whether we can devise other ways to look at profitability and returns.

- Q11: In relation to expanding the investor base, I think you will have to say that, in reality, increases or decreases in trading volume depend more largely on market conditions than on the investor base. Regardless, what kinds of specific sales and marketing tactics are you implementing to attract domestic and overseas investors?
- A11: (Yamaji) To expand the investor base, we are engaging in various initiatives both domestically and abroad.

Domestically, for each of the three major investor segments, i.e., (i) individual investors, (ii) institutional investors, and (iii) prop traders at securities firms, we are offering, among others, seminars, training sessions for derivatives trading strategies, and lectures on risk management, respectively.

With respect to overseas investors, we have identified many major HFTs and hedge funds that have not yet participated in the OSE market. We are focusing on approaching such investors in various ways by means such as introducing information on time-limited incentive programs for newcomers. In such a way, many new investors are entering the OSE market. In this sense, we have obtained results to some extent.

- Q12: What do you think will be required to significantly expand the commodities market in terms of revenue and income after the business combination with TOCOM?
- A12: (Yamaji) I feel that it will take a considerable amount of time for this business combination to lead to raising the competitiveness of the Japanese market and allowing it to play its role as a market that delivers quality over quantity. We will also need to exert considerable effort to bolster the commodities market in Japan, whose trading volume at one point contracted to nearly a fifth of its highest levels.

Meanwhile, some investors around the world who have not yet accessed TOCOM are trading in the OSE market. Domestically, only one online broker is accessing the TOCOM market, while many online brokers are participating in the OSE market. I believe that, under a unified regulatory framework, investors who are not trading in the TOCOM market will begin to trade commodity derivatives in the OSE market.

- Q13: Some media reports have raised concerns over TOCOM's governance. I think this will be an extremely important issue in terms of the post-merger integration. What are your thoughts on the governance?
- A13: (Yamaji) With TOCOM becoming a wholly-owned subsidiary of JPX, I believe that JPX will require TOCOM to have the same level of governance as that of TSE and OSE.

Clearing Services Strategies

- Q14: What are your thoughts on the level of capital required of Japan Securities Clearing Corporation (JSCC) after JPX's business combination with TOCOM and JSCC's absorption of Japan Commodity Clearing House (JCCH), a TOCOM subsidiary? If trading volume in the TOCOM market increases, is there a possibility that the required level of capital will be raised?
- A14: (Miyama) Our view is that, even after JCCH mergers into JSCC, the current amount of capital owned by JCCH will be sufficient for the time being. If trading volume increases in the future, the size of the settlement guarantee reserves may need to be increased. However, I think that such increase is unnecessary for the time being.
- Q15: Why will JSCC clear trades of agricultural products listed on Osaka Dojima Commodity Exchange (ODE)?
- A15: (Miyama) Currently, JCCH clears trades of products listed on ODE. As such, when the clearing function of JCCH is integrated into JSCC, clearing of ODE products will be succeeded by JSCC accordingly.
- Q16: You mentioned that, in response to the international regulations on financial resources over clearing organizations, JSCC is required to have capital of JPY 80 billion on a stand-alone basis. Under circumstances where JSCC is developing new businesses and expanding existing businesses, is it correct to say that the amount of JPY 80 billion will remain unchanged?
- A16: (Miyama) Our view is that JPY 80 billion will suffice even under such circumstances.
- Q17: Some argue that JCCH has low creditworthiness. But JCCH said that it is compliant with the Principles for Financial Market Infrastructures ("PFMI"). From the standpoint of the operator of JSCC, what issues do you feel may arise?
- A17: (Miyama) JCCH has made qualitative disclosure in line with the PFMI, but had not made quantitative disclosure until recently. As some details are not sufficiently clear, we will take a closer look at matters such as what differences exist between JCCH and JSCC.