Provisional Translation

Report by the Working Group on Financial Markets under the Financial System Council

—Initiatives toward Stable Asset Building and the Development of Institutional Systems related to Markets and Exchanges—

December 22, 2016

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As of December 22, 2016

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Observers	Consumer Affairs Agency, Government of Japan	Ministry of Finance Japan	Bank of Japan
	Japan Exchange Group, Inc.	Japan Securities Dealers Association	The Investment Trusts Association, Japan
	Japan Investment Advisers Association, Tokyo (JIAA)	Trust Companies Association of Japan	Japanese Bankers Association
	The Life Insurance Association of Japan	International Bankers Association of Japan	

(* indicates members who attend the WG depending on the theme.)

*In addition to the above members, this WG has invited the following persons for opinion exchange.

○ 5th meeting (Sep. 21, 2016)

Yuta SEKI	Managing Director, Research Nomura Institute of Capital Markets Research

○ 7th meeting (Oct. 19, 2016)

Howard Smith	Managing Director and Chief Representative, Indus Capital Advisors, Inc.
Michael Ross	President- CEO, FIA Japan
Richard Clairmont	Vice President, FIA Japan

(Honorifics omitted)

Introduction

In Japan, household financial assets totaling more than 1,700 trillion yen have been accumulated. However, as more than half of those assets are held in the form of cash and deposits, the proportion of stocks, investment trusts and other investment assets is smaller than in the United States and the United Kingdom. Because of this difference, the growth of household financial assets in Japan has remained low compared with the growth of such assets in the United States and the United Kingdom, and no significant progress in household asset building can be seen in Japan.

Therefore, in order to support households' stable asset building, the government is engaging in multidimensional initiatives. First, the government is making efforts to steadily disseminate the NISA (Nippon Individual Savings Account; a tax exemption program for small-lot investments by individual investors) among households. The government is also preparing to establish an installment-type NISA, which is intended in particular to encourage small-lot, long-term, diverse and installment investments. Regarding institutional investors to which the people entrust long-term funds, the government is conducting a study on revising the Stewardship Code, a code of conduct for institutional investors, based on the idea that it is important for institutional investors to encourage investment-receiving companies to carry out deeper governance reform by promoting a shift of emphasis from form to substance through constructive dialogue conducted from the medium- to long-term viewpoint, rather than focusing exclusively on short-term trends in the companies' business performance, in order to make active contributions to medium- to long-term growth in investment returns.

To enable households' stable asset building, in addition to conducting these multidimensional initiatives, it is also an important challenge to ensure that all financial institutions, etc. involved in sales of financial products, investment advice and product development recognize their respective roles in the investment chain and make efforts to conduct business management with a customer-first approach. Other challenges are to develop and disseminate financial products suitable for long-term, diverse and installment investments.

Moreover, with the advances in information technology, financial markets and exchanges in Japan as well as in the United States and Europe are faced with a variety of changes. In particular, the share of high-speed trading has been growing in recent years amid the advances in trading systems. Developments are also found in the areas of FinTech and competition among trading venues following the abolition of the concentration rule under which securities companies were required to route orders on listed securities only to these exchanges listing them in accordance with exchange rules. It is necessary to deal with these new challenges.

In light of the above situation, at a general meeting of the Financial System Council on

April 19, 2016, the Minister of State for Financial Services requested that a broad study be conducted on various issues related to financial markets and exchanges in Japan in consideration of changes in the circumstances surrounding the markets and exchanges being brought about by the advances in information technology and other factors, in order to support the sustainable growth of the economy and households' stable asset building. In response to this request, the Financial System Council established the Working Group on Financial Markets (hereinafter referred to as the "Working Group"). This Working Group has conducted 12 rounds of deliberations on the following five topics since May 2016 while holding hearings with relevant parties: (i) households' stable asset building and Customer-Oriented Business Conduct (fiduciary duty); (ii) use of exchange-traded funds (ETFs) in households' stable asset building and the position of indexed investments; (iii) high-speed algorithmic trading; (iv) competition among trading venues and alternative trading platforms; and (v) exchanges' business scopes.

This report is a summary of the results of deliberations conducted by the Working Group.

Chapter 1: Stable Household Asset Building and Customer-Oriented Business Conduct

1. Establishment of Customer-Oriented Business Conduct (Fiduciary Duty[1])

(1) Development of Principles Concerning Customer-Oriented Business Conduct

In order to promote stable asset building, it is important for all financial institutions involved in the sales of financial products, investment advice, product development, asset administration and investment management (each, hereinafter referred to as "financial service provider") to recognize their respective roles in the investment chain and make efforts to achieve customer-oriented business conduct.

From this perspective, the Working Group held discussions on such matters as sales commissions, explanations of financial products and management of conflicts of interest while taking up example cases pointed out in relation to customer-oriented business conduct. So far, regarding these points, certain actions including revisions of laws and regulations have been made for the purpose of making financial products and systems for management of conflicts of interest easier to understand, and initiatives to protect investors have been conducted. However, it may be pointed out that the rules established through such actions have come to serve as a minimum standard, encouraging financial service providers to follow them as a matter of formality and act in a uniform manner.

Primarily, it is desirable to create a mechanism whereby financial service providers proactively exercise their creativity and compete with each other to provide high-quality and customer-oriented financial products and services with the aim of achieving best practices and where customers select financial service providers engaging in comparatively better practices.

One effective way to do so is using a principles-based approach rather than the conventional rules-based approach. Specifically, it is appropriate that the authorities formulate principles concerning customer-oriented business conduct (hereinafter referred to as the "principles"), call on financial service providers to accept the principles, and encourage them to seriously consider what is good for customers based on the principles and compete with each other to provide better financial products and services without falling into the habit of trying to do the

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1 "Fiduciary duty" has often been used to refer to the obligation that should be borne by a trustee based on a trust contract, etc. However, in the United States and Europe in recent years, it is becoming increasingly common to use this as a collective term for a broad range of roles and responsibilities that should be fulfilled by a person in charge of performing a duty in order to respond to other people's trust.

same as others.

If a principles-based approach has been found to be insufficient to bring change to the behavior of financial service providers, a new examination should be conducted, with a view to possible use of a rules-based approach.

(2) Matters to be Contained in the Principles Concerning Customer-Oriented Business Conduct

It is appropriate that the principles to be developed by the authority contain the following matters.

Development and Publication of Policy Concerning Customer-Oriented Business Conduct

I. Financial service providers should develop and publish a clear policy for realizing customer-oriented business conduct and periodically disclose the implementation status of the policy. The policy should be periodically reviewed in order to achieve improved business conduct.

(Note) When developing a policy concerning customer-oriented business conduct, financial service providers should pay attention not only to direct transaction counterparties but also final beneficiaries in the investment chain.

Pursuit of Customers' Best Interests

II. Financial service providers should maintain highly qualified expertise and professional ethics and treat their customers faithfully and fairly Financial service providers should make efforts to ensure such business conduct become established as a corporate culture.

(Note) When conducting transactions with customers, financial service providers should aim to secure their stable customer base and income by providing customer-oriented and high-quality services and pursuing customers' best interests.

Appropriate Management of Conflicts of Interest

III. Financial service providers should accurately identify the possibility of conflicts of interest arising in relation to transactions with customers, and appropriately manage them when there is the possibility of any conflict of interest arising. Financial service providers should develop a corresponding policy for such purposes in advance.

(Note) When making judgement concerning the possibility of conflicts of interest arising, financial service providers should give consideration to the effects that the following circumstances, for example, may have on their transactions or business.

- In cases where a distributor receives sales commissions, etc. in connection with sales or recommendations of financial products to customers or other related activities (hereinafter, these activities are collectively referred to as “sale or recommendation”), from the company providing the relevant financial products.
- In cases where a distributor sells or recommends, or conducts other activities in connection with, financial products provided by another company within the same group.
- In cases where there is a corporate sales division and an asset investment division within a company or within a group and where the asset investment division selects a company having a business relationship with the corporate sales division as an investment destination.

Clarification of Fees and Expenses

IV. Financial service providers should provide information in a manner that enables customers to understand the details of all fees and expenses, regardless of name, incurred by the customers, as well as what is a service corresponding to each of such fees and expenses.

Easily Understandable Provision of Important Information

V. Financial service providers should provide important information on sales or recommendations of financial products and services, in addition to the matters indicated in IV. above, in a manner understandable by customers based on the presumption that there exists an information asymmetry between customers and themselves.

(Note 1) The important information should include the following matters:

- The fundamental return, loss and other risks, and the transaction terms of financial products and services sold or recommended to customers
- The reasons for selecting financial products or services to be sold or recommended to customers (including the reasons for judging that the products or services are suited to customers’ needs and preferences)

- When there is a possibility of any conflict of interest arising in relation to financial products or services to be sold or recommended by a financial service provider to customers, details of the possible conflict of interest (including fees and expenses to be received by such financial service providers from any third party) and the effects that the possible conflict of interest may have on the transactions with the customer or such financial service provider's business.

(Note 2) When selling or recommending two or more financial products or services as a package, financial service providers should inform the customer whether it is possible to purchase the different components separately. Financial service providers should also provide important information concerning each of such components so that customers can compare the options of purchasing them as a package and purchasing them separately (Notes 2 to 5 also apply in cases where information concerning fees and expenses is provided).

(Note 3) By taking into consideration each customer's experience of financial transactions and knowledge, information provided by financial service providers to customers should be clear and plain and the financial service providers should provide information to customers honestly so as to avoid misunderstanding.

(Note 4) Financial service providers should provide information in a manner commensurate with the complexity of financial products and services they sell or recommend to customers. When selling or recommending simple and low-risk products, the manner of provision of information may be concise, but when selling or recommending complex or high-risk products, they should aim to provide information more carefully—for example by explaining the products' basic structure, such as the risk-return relationship.

(Note 5) When providing information to customers, financial service providers should classify information based on its importance and call customers attention to more important information by placing particular emphasis on such information. At the same time, financial service providers should take care to make it easy for customers to compare similar financial products and services.

Provision of Services Suited to Each Customer

VI. Financial service providers should understand customers' asset status, trading experience, knowledge, trading purpose and needs, and manufacture or sell or recommend financial products and services suited to each customer.

(Note 1) When selling or recommending two or more financial products and services as a package to customers, financial service providers should pay attention to ensure that the package as a whole is suited to the customers.

(Note 2) When arranging financial products, financial service providers involved in such arrangement should identify the attributes of customers targeted for sales in consideration of the products' characteristics and should take care to ensure that financial service providers involved in the products' sales sell the products accordingly.

(Note 3) In particular when selling or recommending complex or high-risk financial products or when selling or recommending products to a class of customers who are vulnerable to financial transaction fraud, financial service providers should more carefully examine whether it is appropriate to sell or recommend the products in light of the products' characteristics and the customers' attributes.

(Note 4) Financial service providers should strive to ensure that employees deepen their understanding of the workings of financial products they handle and they should also actively provide information to customers so that they can acquire basic knowledge concerning financial transactions in accordance with their attributes.

Frameworks for Motivating Employees Appropriately and Other Measures

VII. Financial service providers should develop frameworks for motivating employees appropriately including remuneration and performance evaluation systems and employee training designed to encourage conduct such as actions to pursue customers' best interests, fair treatment of customers, and appropriate management of conflicts of interest, and a framework for appropriately motivating employees through employee training and other means, as well as an appropriate governance system.

2. Measures to Establish Customer-Oriented Business Conduct

In order to establish customer-oriented business conduct, it is necessary to create a virtuous circle in which financial service providers compete with each other to provide better products and services, customers select financial service providers engaging in better practices and financial service providers constantly review their business management accordingly. To do so, it is appropriate to not only develop the principles that contain the matters indicated in 1.(2) above but also implement the following measures.

(1) “Visualization” of Financial Service Providers’ Practices

In order to enable customers to proactively select financial service providers which meet their needs or resolve their problems, it is important to promote “visualization” to a maximum possible extent to make financial service providers’ activities and efforts clear for customers to grasp accurately.

Therefore, as prescribed in I. above, it is first of all important for financial service providers adopting the principles to develop and publish a clear policy for realizing customer-oriented business conduct and then disclose the status of efforts concerning the policy and review the policy periodically. During this process, it is appropriate that financial service providers include their approach to the principles indicated in II to VII above (including the notes) in the policy if they accept the principles. If they do not accept the principles, it is appropriate that they explain the reasons for the non-acceptance and their alternative measures in an easily understandable manner in the policy.

(2) Customers’ Proactive Actions

In order to enable customers to appropriately analyze information provided by financial service providers, accurately evaluate financial service providers’ efforts, and select financial service providers engaging in better practices, it is important that customers act proactively.

To that end, it is considered to be important to promote improvement in customers’ financial literacy, including knowledge and understanding of investment, by actively providing them with investment education and information concerning financial products that contribute to stable asset building.

In addition, if there is a mechanism whereby a third-party entity comprised of experts, etc., such as one that is established as a private-sector voluntary initiative, evaluates the policies and their implementation status with respect to financial service providers as a whole or individually from customers’ standpoint and discloses the evaluation results, it will presumably provide guidance for customers to select financial service providers.

(3) Diversification of Providers Giving Advice or Other Services to Customers

In order to enable asset building by customers based on rational judgment, it is important to promote a diversity of providers of support for customers’ selection of appropriate financial products and services, including persons who advise customers from a standpoint independent from interested parties, such as distributors.

(4) Role of the Authorities

In order to realize customer-oriented business conduct, it is important that the authorities appropriately monitor the status of financial service providers' acceptance of the principles, the policies concerning customer-oriented business conduct they have developed and the implementation status of their policies in the processes of inspection and supervision and engage in dialogue with them with the aim of realizing best practices.

Regarding the principles, it is desirable to consider reviewing them as necessary in consideration of the implementation status by financial service providers of the principles and changes in the surrounding circumstances.

Chapter 2: Use of ETFs in Households' Stable Asset Building and the Position of Indexed Investment

1. Use of ETFs in Households' Stable Asset Building and Challenges

Long-term, installment and diverse investment is considered to be an effective means for the people to engage in stable asset building. Global diversification of investment destinations makes it possible to reap the fruits of the growth of the global economy, while the diversification of the timing of investment (installment investment) helps to reduce the risk of purchasing investment products at high prices. In addition, holding investment assets for the long term makes it possible to stabilize the investment return.

As an investment vehicle to achieve such results, ETFs (exchange-traded funds) enable diverse investment with a small amount of funds and it is also considered to be superior in terms of transparency. In addition, generally speaking, the cost of ETFs is said to be lower than the cost of similar investment trust products. From these viewpoints, ETFs may be essentially considered as investment products useful for households' stable asset building.

However, it cannot be said that ETFs are currently being sufficiently used for stable asset building by the people, so it is necessary for exchanges and other relevant parties to consider how to deal with the following challenges.

(1) Improving Liquidity of the ETF Market

It has been pointed out that one factor behind the lack of sufficient use of ETFs is the significant presence of ETFs lacking in liquidity, which are difficult for investors to buy or sell when they would like to, so it is a critical challenge to improve the liquidity of the ETF market.

Therefore, it is appropriate for exchanges and other relevant parties to consider not only introducing a market-making system while paying attention to fair trade but also revising relevant ordinances as necessary in order to develop an environment to make it easier for market makers to display bids and offers.

In addition, from the perspective of improving liquidity by facilitating smooth functioning of the price adjustment mechanism concerning ETFs, it is appropriate for relevant parties to work together to consider how to increase the efficiency of the necessary procedures so that the period concerning the creation and redemption of ETFs (current period: T+4 to T+6[2]) can be shortened.

(2) Raising the Awareness of ETFs

The low awareness of ETFs among ordinary people, including beginner investors, has been pointed out as a factor behind the lack of sufficient use of ETFs. The low awareness is considered to be due in part to the fact that some sales companies, including securities companies and banks, do not handle ETFs or are not actively recommending them even if they do.

From the perspective of raising awareness of ETFs among investors, it is important for exchanges and other relevant parties to prepare reference materials explaining the characteristics and workings of ETFs in an easily understandable manner and communicate information widely through sales companies' counters and other channels.

In addition, it is appropriate for exchanges to prepare explanatory materials that can be used by sales companies such as banks handling both investment trusts and ETFs with similar characteristics to provide information that enables customers to make comparisons.

Banks and other registered financial institutions are already allowed to engage in over-the-counter sales of ETFs (including acting as a brokerage or intermediary on behalf of securities companies) under the existing system.

(3) Measures to Promote the Use of ETFs for Long-Term, Diverse and Installment Investment

In recent years, ETF products which are suited to long-term investment or which contribute to sustainable economic growth have been developed, and it is appropriate for relevant parties to continue to devote efforts to the development of such high-quality products in the future.

As the more than 200 listed ETF products include a variety of types, it is appropriate to enhance and expand the provision of information to investors. One way to do so is to make clear which ETF products are suited to long-term investment or which offer installment service through lists displayed on exchanges' websites.

While the cost of holding ETFs is relatively low compared with the cost of holding

2 Settling a transaction four to six days after the trade date.

investment trusts, it has been pointed out that investors need to pay a commission fee on each transaction, which means that installment investment requires a heavy burden of commission fee payment. It has also been pointed out that the trading unit is relatively large in the case of ETFs. Therefore, it is appropriate for relevant parties to consider matters related to product design intended to enable small-lot, installment investment using ETFs, including what kind of commission fee system is suited to installment investment.

2. Increase in Indexed Investment and Stock Price Discovery

One way of making asset investment is indexed investment (a method of investment linked to a representative market index). Typical methods of indexed investment include investing in indexed funds and purchasing ETFs. These methods of indexed investment are used not only by individual investors but also widely among institutional investors.

Indexed investment is notable for its low investment cost. Generally speaking, the investment cost is low because indexed investment does not require enterprise value analysis concerning investment targets or investment decisions based on such analysis and also because the component issues of ETFs do not frequently change. This means that ETF trading is not based directly on individual companies' medium- to long-term value.

In relation to this, it has been pointed out that an increase in the proportion of indexed investment in asset investment by institutional investors around the world could cause market distortions by undermining stock price discovery based on companies' medium- to long-term value. In particular, it has been pointed out that when the proportion of indexed investment in the whole of a market is excessive, the process of stock price discovery may not work based on the relevant companies' medium- to long-term value, resulting in the loss of rationality of indexed investment itself.

In this respect, the following two opposing arguments have been offered:

- Even if a market distortion is caused as a result of an excessive growth of indexed investment, this factor may be automatically adjusted through an increase in active investment (a method of investment seeking to earn a higher investment return than the performance of market indexes) if the market is rational.
- As the benefits of information production activity conducted for active investment are enjoyed by market participants as a whole through the reflection of information in prices, the incentive for conducting such activity at a cost weakens. Thus, the adjustment function of an increase in active investment may not necessarily work.

In any case, it is appropriate to keep watching trading trends in the future in order to prevent a situation in which an excessive presence of indexed investment may distort the market's fundamental functions, such as stock price discovery, or the process of reflecting the results of appropriate information production activity in prices.

Chapter 3: High-Speed Algorithmic Trading

1. Circumstances surrounding High-Speed Algorithmic Trading

Advances in information technology have spurred exchanges around the world to undertake measures to minimize latencies in their markets. In Japan as well, the January 2010 launch of "arrowhead," the trading system of the Tokyo Stock Exchange (TSE), has greatly accelerated TSE's order response and information distribution speeds. In combination with the co-location service, which allows trading participants to install their servers close to the exchange's trading system, the latencies associated with transactions have been drastically reduced.

In response to these trends, the share of orders through the co-location area among all orders at the TSE in 2016 amounted to around 70%, and that of transactions executed reached 40-50%. This indicates a greater share of automatic high-speed algorithmic trading typically utilized at the co-location area to place, modify and cancel orders concerning financial products.

The term high-speed algorithmic trading would include a variety of types, from one in a narrow sense, or a passive market-making strategy,[3] to one in a broad sense not specifying particular strategies.

Under the aforementioned circumstances, securities companies' involvement with investors engaging in high-speed algorithmic trading has been limited, and the authority and exchanges have difficulty grasping the full picture of high-speed algorithmic trading and strategies used therein.

(1) Security Companies' Checking Function

Under the current law, securities companies are required to manage business operations not to go against public interests or hinder the protection of investors. For example, when accepting orders from customers, securities companies are required to check the details of customers' orders in advance. However, in the case of high-speed algorithmic trading, orders are automatically executed based on algorithms incorporated by investors into servers installed in the co-location area, leading to limited involvement of securities companies with these

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3 A passive market-making strategy refers to the strategy of profiting from the bid-ask spread by placing both purchase and sell orders in the market and becoming a counterparty to other investors. This strategy could lead to a vast volume of orders and a high cancellation rate.

investors. Amid these circumstances, it has been pointed out that there are limits to securities companies' effective fulfillment of the checking function with respect to orders placed by these investors.

(2) Examination by Exchanges

Under the current law, exchanges are required to ensure fair and smooth trading of securities and to protect investors. As part of the requirement, exchanges must examine the details of securities trading conducted by their member securities companies. In this respect, exchanges are not allowed to extend their investigative power beyond their member securities companies to directly conduct such examination of investors. In addition, since there are limits to the effectiveness of securities companies' checking function concerning orders placed by high-speed algorithmic traders, in-depth examination by exchanges is said to become increasingly difficult.

(3) Supervision and Market Surveillance by the Authority

The authority is required to ensure fairness in the issuance of securities and transactions of financial products and to facilitate the smooth distribution of securities, as well as to achieve fair price formation for financial products through the full utilization of the functions of the capital markets. Under the current law, the authority is empowered to require individual investors to submit a report if it finds suspicions of their engagement in unfair trading. Apart from these cases, however, the authority is not authorized to require reports directly from investors. As a result, in-depth checks by the authority are also said to become difficult since such checks are usually conducted through securities companies and exchanges with aforementioned limitations in their capacity for high-speed algorithmic traders.

2. Preceding Responses Concerning High-Speed Algorithmic Trading and Developments in Europe and the United States

(1) Preceding Responses

In Japan, Europe and the United States, exchanges have made revisions to their trading rules, and measures have been taken against securities companies to prevent market disruptions.

For example, exchanges have introduced rules such as circuit breaker and cancellation of erroneous orders to prevent overly volatile market conditions, etc. Also exchanges' fee structure, which imposes fees based on trading volume, is said to have some effect in curbing high-speed algorithmic trading.

Moreover, from the perspective of preventing orders that may cause market disruptions, securities companies are required to develop internal management systems and to check the details of customers' orders in advance. Securities companies are prohibited from granting their customers naked access, or unfiltered access to an exchange.

(2) Developments in Europe and the United States

In Europe and the United States, additional measures have been developed to deal with the risks posed by algorithmic trading.

In Europe, an investment firm that engages in algorithmic trading needs to be authorized by a competent authority of an EU member state under the Markets in Financial Instruments Directive (MiFID II) scheduled to be put into effect in January 2018. MiFID II requires an investment firm—an investor dealing on own account as well as securities company and investment management company, etc.—that engages in algorithmic trading to have in place effective systems and risk controls and to notify its engagement in algorithmic trading to the competent authorities of its home member state. Flagging of algorithmic orders, maintaining trading records, and providing algorithmic trading strategies to the competent authority are also required for such traders. In addition, as a result of authorization as an investment firm, an investor—as with a securities company which has been categorized as an investment firm—engaging in algorithmic trading is required to have its office in an EU member state, to have a management body that complies with the European regulatory framework, and to satisfy capital requirements (initial capital and capital adequacy requirements).

In the United States, the Commodity Futures Trading Commission has proposed that, together with certain existing registrants such as futures commission merchants, certain market participants that engage in algorithmic trading for their own accounts using the direct electronic access be required to become registered with certain organizational/system requirements, including risk controls, and reporting and recordkeeping obligations.

3. Regulatory Framework in Japan for High-Speed Algorithmic Trading

(1) Necessity of Developing Rules

High-speed algorithmic trading is said to contribute to improved liquidity and tighter spreads beneficial to general investors. Therefore, the regulatory framework should not uniformly exclude all sorts of high-speed algorithmic trading, including ones that contribute to the facilitation of market transactions, from Japanese markets.

On the other hand, concerns have been raised with respect to the impact of high-speed algorithmic trading on market stability and efficiency, fairness between investors, price discovery functions of the markets based on medium- to long-term enterprise value, and system vulnerabilities. More specifically:

- Whether high-speed algorithmic trading responds to a market event in a way that it is involved in one-sided movement in the market resulting in market disruption;
- Whether high-speed algorithmic trading causes a sense of unfairness that individual investors and institutional investors making investment decisions from the medium- to long-term perspective cannot compete with high-speed algorithmic traders and discourages those general investors from investing in the market;
- Whether high-speed algorithmic trading undermines the price discovery functions of the markets based on medium- to long-term profitability or enterprise value where high-speed algorithmic trading, some of which takes short-term strategies, accounts for the majority of market transactions.
- In the event of emergencies such as abnormal order placements/executions and a cyberattack, whether the impact would be exacerbated by high-speed algorithmic trading to spread throughout the entire market instantly and whether system vulnerabilities of high-speed algorithmic traders cause system trouble to develop into a serious market-wide problem.
- Whether high-speed algorithmic trading undermines the market integrity at a time when some cases of the inappropriate trading, such as market manipulation, are reported to use algorithms in Japan as well as in the United States and Europe.

While these concerns have been expressed, the authority and exchanges have difficulty grasping the full picture of high-speed algorithmic trading, strategies used therein, and risk controls employed in high-speed algorithmic trading. If this situation is left unattended, it could undermine efforts to create a market with sufficient depth where a variety of investors, including pension funds and individual investors, feel comfortable participating.

Therefore, it is appropriate to develop a regulatory framework in which high-speed algorithmic traders are required to be registered with the authority while giving consideration to regulatory responses taken by other jurisdictions. This framework is intended to require high-speed algorithmic traders trading in the Japanese markets to meet organizational/system requirements including risk controls, and to allow the authority to identify transactions and trading strategies of such traders.

(2) Regulatory Framework

As a regulatory framework for high-speed algorithmic traders, it is appropriate to take the following measures under the registration scheme:

- ✓ Organizational/system requirements, including risk controls
  - Proper management and operation of trading systems
  - Appropriate organizational arrangements and capital requirements
- ✓ Notification and provision of information
  - Notification of engagement in algorithmic trading to the authority
  - Flagging of algorithmic orders
  - Provision of a description of algorithmic trading strategies to the authority
  - Maintaining trading records
- ✓ Other measures
  - Submission of business reports to the authority, etc.

When introducing the framework, its effectiveness should be ensured for traders who are based overseas and trading in the Japanese markets. Therefore, it is appropriate to prohibit securities companies from accepting orders from an unregistered high-speed algorithmic trader or from a registered trader if the securities companies cannot reasonably confirm that the trader has sufficient organizational/system arrangements, including risk controls for its high-speed algorithmic trading. In addition, overseas high-speed algorithmic traders should have a designated representative or agent in Japan.

Financial Instruments Business Operators, regulated under the Financial Instruments and Exchange Act, may engage in algorithmic trading, and certain risk control and recordkeeping requirements are already in place for them. When introducing a new regulatory framework for high-speed algorithmic trading, appropriate adjustments should be made to avoid duplicative application of rules for the regulated Financial Instruments Business Operators engaging in such trading—notification of engagement in algorithmic trading to the authority would be an example of appropriate additional requirements.

The effectiveness of the regulatory framework should be enhanced by empowering exchanges, closest to the market as operators of trading systems, to directly investigate high-speed algorithmic traders, in addition to prohibiting securities companies from accepting orders in the above-mentioned situations.

In any case, it is necessary to ensure that the specifics of the above-mentioned requirements and measures can be flexibly adapted in light of future developments in Europe and the United States.

Chapter 4: Competition among Trading Venues and Alternative Trading Platforms

1. Competition among Trading Venues

In Japan, the establishment of proprietary trading systems (PTSs) has been permitted since the abolition of the concentration rule under which securities companies were required to route orders on listed securities only to these exchanges listing them in accordance with exchange rules, from the perspective of promoting competition among trading venues. A total of eight companies entered the business of handling listed stocks through a PTS, and two of them continue their operations now. Looking at the share in overall cash transactions in Japan by trading venue, the TSE has a share of around 90%, while the combined share of the two PTS operators is around 5%.

In the United States, there are more than 50 trading venues, and alternative trading platforms account for more than 30% of trading of all listed stocks. Among exchanges in the United States, even NASDAQ, the largest of them, has a share of only around 15%. In the United Kingdom, Germany and France as well, the share of exchanges is substantially lower than in Japan, with alternative trading platforms accounting for a relatively large portion of overall transactions.

Regarding competition among trading venues, the following conclusions were reached in a report issued by the Securities and Exchange Council[4] in 1997.

- It is necessary to establish rules concerning the protection of investors, including fair trade rules, and ensure competition among various trading venues so that trading can be conducted as freely as possible.
- It is expected that competition among trading venues will increase the efficiency and strengthen the functions of the market system as a whole.

Based on these conclusions, the concentration rule was abolished, the ban on alternative trading platforms was lifted, and the relevant framework including the permission of the establishment of PTSs was developed.

Subsequently, in order to meet the needs for various sorts of transactions, including block and basket transactions, the TSE offers investors a means of executing transactions during off-auction hours (ToSTNeT; Tokyo Stock Exchange Trading NeTwork). In addition, it has been pointed out that PTSs led the way in reducing the tick size, followed by exchanges, leading to an improvement of convenience for market participants.

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4 A report by the Securities and Exchange Council titled "Comprehensive Reform of the Securities Market—Toward Realizing an Affluent and Diverse 21st Century" (June 13, 1997).

In light of the above, we can see that in Japan, too, competition among trading venues has been effective to some degree in achieving its expected results, such as spurring innovations and promoting the provision of trading methods meeting users' needs. Therefore, it is presumed that the significance of competition among trading venues has not been lost.

On the other hand, in light of the fact that exchanges and alternative trading platforms together constitute Japan's market, it is important to ensure the fairness and transparency of the market as a whole through cooperation between exchanges and PTSs.

2. Margin Trading at PTSs

Margin trading is currently banned at the PTSs, and there are calls for lifting the ban.

Regarding the reasons why margin trading is banned at PTSs, the Financial Services Agency has provided the following explanations in response to public comments submitted at the time of the revision of the supervisory guidelines in 2010[5]:

- Lending of funds and stocks by PTS operators themselves in relation to margin trading cannot be permitted because (a) conflicts of interest may arise between their positions as market operators (PTS operators are responsible for implementing such measures as restricting or prohibiting margin trading when trading conditions are or could become abnormal) and as providers of funds and stocks to customers; and (b) exchanges do not lend funds or stocks in relation to margin trading from the perspective described in (a).
- In addition, the option in which member securities companies lend funds or stocks in relation to margin trading at PTSs (as they do at exchanges) cannot be permitted because it is not realistic to require PTS operators to perform self-regulatory functions comparable to those of exchanges (ex. investigation of and disciplinary actions against member securities companies) in order to ensure the appropriateness of such lending operations conducted by their member securities companies.

Therefore, one possible option is approving margin trading at a PTS on the condition that an appropriate scheme be established to resolve the above-mentioned problems. For example:

- Appropriate measures to prevent conflicts of interest are in place, such as preventing the PTS operator itself or a group company thereof from effectively acting as a provider of

5 Results of public comments on revisions to the Comprehensive Guidelines for Supervision of Financial Instruments Business Operators, etc. (March 4, 2010)

funds or stocks; and

- Regarding self-regulatory functions in relation to margin trading, measures to prevent, to the extent possible, such harmful effects as excessive speculative trading are in place. Specifically, measures similar to the following implemented at exchanges should be taken: (i) tabulation and reporting of the balance of margin transactions; (ii) regulatory measures related to margin trading (designating an issue subject to daily disclosure of the balance of margin transactions; raising the margin requirement; and restricting or suspending margin trading); and (iii) investigation of trading participants' compliance with the above-mentioned measures and disciplinary actions.

In principle, PTS operators should be responsible for implementing the above-mentioned self-regulatory functions. However, effective implementation of (i) and (ii) above would require cooperation between exchanges and PTSs. Regarding measure (iii), investigation of and disciplinary actions against trading participants, it is considered to be difficult for PTS operators themselves to directly implement the measure because they are Financial Instruments Business Operators. Therefore, it is appropriate for exchanges, the Japan Securities Dealers Association, and PTS operators to cooperate with one another regarding the measure (iii).

From the perspective of protecting investors by ensuring the fairness and transparency of the market as a whole, appropriate implementation of measures such as suspension of trading is necessary when, for example, information is released which could have a material impact on investment decisions and the details of which are unclear. If margin trading at PTSs is permitted, the appropriate implementation of such measures will become increasingly important. Therefore, relevant parties, including exchanges and PTS operators, should make necessary arrangements and consider the specifics of criteria and steps for decisions and cooperation among relevant parties towards such measures as suspension of trading.

3. Dark Pools

In recent years, the use of trading platforms without pre-trade transparency (so-called dark pools, where quotes are not disclosed) in which orders from multiple customers are electronically matched has grown in line with the advances in information technology. Dark pools are said to play roles in meeting needs of institutional investors for executing large block trades while preserving anonymity and for avoiding matching against orders placed by investors engaging in high-speed algorithmic trading. A report issued by the International Organization of Securities Commissions[6] explains that the reasons why dark pools are used by investors include minimizing market impact costs, facilitating the execution of large blocks and taking advantage of the possibility of price improvement.

At the same time, the following concerns are pointed out in the report:

- The concerns about the insufficient provision of information including execution allocation policies
- The concerns about the negative impact on market integrity due to possible differences in access to markets and trading information
- The concerns about the negative impact on the price discovery process and fragmentation of liquidity where there is a substantial number of dark orders and/or orders submitted into dark pools

Recognizing the roles and concerns of dark pools, the United States and Europe require dark pool operators to become registered as trading venues that match orders placed by multiple investors, and impose regulatory measures to clarify order execution rules and to secure the robustness of trading systems.

On the other hand, in Japan, Financial Instruments Business Operators are allowed, without authorization as a PTS operator, to operate trading systems whereby customer orders are electronically matched and then transferred to an off-auction trading hours trading network offered by the exchange. While the manner of trading in dark pools in Japan is different from that in other countries, some might be concerned as to whether current arrangement is sufficient in regulating dark pools if a problem arises with respect to the operation of a dark pool as a trading venue.

One possible option in Japan is replacing the current arrangement under which orders matched in dark pools are transferred to an off-auction trading hours trading network offered by the exchange with a new arrangement under which dark pools, like PTSs, need to be authorized and disclosure of quotation information is not required under certain conditions. However, in deliberations by the Working Group, strong support was not expressed for considering the new arrangement.

Therefore, regarding dark pools, it would be appropriate for the authority to continue striving to ensure effective supervision through the regulations of Financial Instruments Business Operators and consider revising measures as necessary if new challenges or changes

6 IOSCO, Principles for Dark Liquidity: Final Report (May 2011)

in the circumstances surrounding dark pools occur in the future.

Chapter 5: Exchanges' Business Scopes

1. Current Regulatory Framework

Market operation is considered highly public in nature and therefore Japanese exchange groups are subject to the following regulations concerning the permissible business scopes in light of ensuring sound and stable operation of the markets.

- The business scope of exchanges is limited to the operation of the exchange markets and business incidental thereto. Upon approval, however, exchanges may engage in the business exhaustively enumerated in the Financial Instruments and Exchange Act, such as the business of operating a market for carrying out transactions involving carbon dioxide equivalent quotas and that of issuing an LEI.[7]
- The business scope of exchange holding companies is limited to the business management of subsidiary exchanges, etc. and business incidental thereto.
- The business scope of exchanges' subsidiaries and sister companies (subsidiaries of exchange holding companies) is limited to the operation of the exchange markets and business incidental thereto. Upon approval, however, they may engage in business related to the operation of the exchange markets (hereinafter referred to as "related business").

What falls within the category of related business is not specified in the legal text, and the authority has approved related business according to the criteria determined by the Financial System Council in 2002[8] as follows: (i) being closely related to the business of exchanges; (ii) contributing to exchanges' smooth business operations; (iii) ensuring effective management of risks posed by the business operations of subsidiaries to exchanges; and (iv) not impairing the confidence in the fair and neutral business operations of exchanges.

2. Review on the Exchanges' Business Scopes

It is necessary to revise exchanges' permissible business scopes adapting to the changes

7 Legal Entity Identifier: a code to uniquely identify entities that engage in financial transactions.
8 A report by the First Subcommittee of the Financial System Council titled "Promotion of the Securities Market Reform" (Attachment 3, Report by the Working Group on Exchanges) (December 16, 2002).

surrounding the exchanges as illustrated below.

(1) Business Related to Off-Exchange Transactions

Following the collapse of Lehman Brothers, which led to the global financial crisis, the international community called for central clearing of over-the-counter (OTC) derivatives. Japanese exchanges' subsidiaries and sister companies are approved to engage in the business of clearing OTC derivatives and system development with respect to off-exchange business related thereto.

Such off-exchange business, however, might not strictly meet criterion (ii) in the previous section of this chapter requiring related business to contribute to exchanges' smooth business operations. Until now, approval has been granted in practice when the business will contribute to the enhancement of market functions as a whole. In consideration of these situations, it is appropriate to modify the criterion (ii) to read "contributing to the smooth functioning of the market as a whole."

(2) Response to FinTech

Innovative financial services using FinTech have been rapidly growing in recent years, and such technologies as artificial intelligence and block chains have the potential to make a significant impact on exchanges' business operations. Japanese Exchange groups are expected to work on pioneering initiatives related to such technologies, and investment in companies with such technological edge should be a workable option. Therefore, it is appropriate to add flexibility to the above-mentioned criterion (ii) so that the business "expected to contribute to exchanges' smooth business operations" can be approved as a related business.

(3) Response to Globalization

Amid the global trend of exchange groups' business diversification, Japanese exchanges may become active in investing in foreign exchanges or foreign companies engaging in business incidental thereto or related to the operation of the exchange markets. It is possible that subsidiaries of such foreign exchanges or foreign companies in which Japanese exchanges plan to invest engage in business outside the permissible business scope of

Japanese exchanges' subsidiaries. Therefore, it is appropriate to let Japanese exchange groups own foreign exchanges or foreign companies with subsidiaries engaging in business outside the scope for a certain period of time.[9]

(4) Flexible Business Operations within an Exchange Group

Currently, within the same exchange group, exchanges, clearing organization and other group companies are separately engaging in the development of respective trading systems. In order to promote synergetic and cost-reduction effects for an exchange group, more flexible business operations within an exchange group are desirable where economy of scale matters. It will be efficient to consolidate system development work within an exchange group, for example, at an entity including an exchange possessing relevant knowhow. Therefore, it is appropriate to revise the exchanges' permissible business scope so that an exchange is allowed, subject to approval, to consolidate common and/or duplicative operations such as the development of systems within the exchange group it is part of, given that the intra-group trade is appropriately managed, including from the viewpoint of the distribution of expenses.

(5) Additional Consideration after the Merger of Exchanges

In light of the dominant market share held by the Japan Exchange Group, which is formed by the merger of the Tokyo Stock Exchange Group and the Osaka Securities Exchange, it is increasingly important to ensure fair and equitable competitive conditions when approving related business in which exchanges' subsidiaries or sister companies engage. Specifically, it is appropriate to consider, for example, whether the exchange group is expected to take on the business in question for the benefit of market as a whole due to the scarcity of suitable alternative players, when the authority considers whether to grant approval to the business.

3. Clarification of Business Management Functions Assumed by an Exchange Holding Company

9 Banks and insurance companies have been allowed to own foreign companies with subsidiaries engaging in business outside the scope of their subsidiaries for up to five years in principle.

Expansion of the exchanges' permissible business scopes will elevate the importance of the group-wide business management functions. Therefore, it is appropriate to clarify the business management functions that should be performed by a holding company that sits atop an exchange group (or an exchange that sits atop an exchange group without a holding company). The following items will be appropriate examples for the contents of the business management functions required of such an exchange holding company, etc.:

- Develop group management policies and ensure their appropriate implementation.
- Manage conflicts of interest between entities within its own exchange group.
- Develop a compliance structure of its own group.

Conclusion

The above are the results of deliberations conducted by the Working Group.

In order to enhance the people’s welfare amid the ongoing population decline and aging of society, it is a critical challenge to promote stable asset building. To do so, it is a prerequisite that a relationship of trust between customers and financial service providers be built through the establishment of the Principles Concerning Customer-Oriented Business Conduct.

Circumstances surrounding markets and exchanges are changing rapidly in line with the advances in information technology. It is therefore an urgent task to update the framework, in order to realize a fair and transparent market adapted to the changes.

It is desirable that the authorities and other parties take appropriate actions in light of the above.