Principles for Financial Market Infrastructures Disclosure

TFX TOKYO FINANCIAL EXCHANGE

Contents

*As for Principle 10, 11, 12 and 24, it is described as "not applicable" in this disclosure since these principles do not apply to TFX's business.

Responding institution:

Tokyo Financial Exchange Inc.

Jurisdictions in which the FMI operates:

Japan

Authorities regulating, supervising or overseeing the FMI:

Financial Services Agency of Japan and Bank of Japan

The date of this disclosure:

September 2, 2015

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<Disclaimer>

I. Executive Summary

Tokyo Financial Exchange Inc. ("TFX") is a primary financial instruments exchange and clearing house in Japan, providing clearing services (*i.e.*, financial instruments obligation assumption business) for Interest Rate Futures contracts as well as Exchange FX Margin contracts and Exchange Equity Index Margin contracts (herein-after called "Margin contracts") listed on TFX.

TFX is engaged in financial instruments obligation assumption business (herein-after called "Clearing Business" for convenience sake) upon obtaining an approval therefore from the Prime Minister of Japan under the Financial Instruments and Exchange Act ("FIEA"). TFX is under the supervision of the Financial Services Agency of Japan ("JFSA") and also subject to oversight by the Bank of Japan ("BOJ").

The Committee on Payment and Settlement Systems-Board of the International Organization of Securities Commissions [1] ("CPSS-IOSCO") published the Principles for Financial Market Infrastructures ("PFMI") in April 2012. Based on the PFMI, the JFSA released Comprehensive Guidelines for Supervision of Financial Market Infrastructures - Clearing Organizations, Fund Clearing Organizations, Book-entry Transfer Institutions, and Trade Repositories (herein-after called "JFSA's Guidelines") in December 2013.
TFX, given the development in these new international regulations, recognizes importance of obtaining credibility as a CCP by accomplishing properly its Clearing Business under an appropriate risk management framework and establishes a robust governance structure and comprehensive risk management framework conforming to the PFMI and JFSA's Guidelines.

This document provides details to demonstrate TFX's compliance with the PFMI in accordance with the Principles for Financial Market Infrastructures: Disclosure Framework and Assessment Methodology ("DFAM"). Unless otherwise specified, this disclosure is described based on the information as of the end of June 2015.

[1] Name at the time of the PFMI's release. On September 1, 2014, the Committee on Payment and Settlement Systems ("CPSS") changed its name to the Committee on Payments and Market Infrastructures ("CPMI").

II. Summary of Changes since the Previous Update

This is an English translation of the first disclosure document released (in Japanese) pursuant to the DFAM. Certain of expressions used in the first disclosure document (in Japanese) published on 8 July 2015 have been edited and renewed without any substantive changes made thereto, in accord with the publication of its English version.

III. General Background of the FMI

Corporate Profile

TFX is a financial instruments exchange licensed to establish a financial instruments exchange market and is an approved clearing house[2] under the Financial Futures Trading Law enforced in 1989 and the FIEA enforced in 2007. TFX was established in April 1989, as a special corporation named Tokyo International Financial Futures Exchange ("TIFFE") with the capital provided by major domestic and foreign financial institutions and started the Clearing Business in June 1989.

In April 2004, TIFFE was reorganized and converted into a limited-liability and stock company in order to strengthen corporate governance as well as to enhance convenience and transparency of the market. In September 2007, as the FIEA was enforced, the company name was changed to the current name, Tokyo Financial Exchange Inc.

TFX launched Interest Rate Futures contracts in 1989, Exchange FX Margin contracts in 2005 and Exchange Equity Index Margin contracts in 2010 and started the Clearing Business for those products respectively.
TFX assumes an important clearing/settlement function in Japan's financial instruments market and provides clearing services with regard to all products listed on TFX.

[2] Article 80 and 156-19,FIEA

TFX Clearing Products

Category	Details
Interest Rate Futures contracts	Three-month Euroyen futures Options on Three-month Euroyen futures Six-month Euroyen LIBOR futures* (*Trading suspended for the time being) Over-Night Call Rate futures
Exchange FX Margin contracts	Yen Currency Pairs 13pairs Non-Yen Currency Pairs 11pairs
Exchange Equity Index Margin contracts	Nikkei 225 Margin contracts DAX® Margin contracts FTSE 100 Margin contracts

TFX Clearing Statistics

Products	URL
Interest Rate Futures contracts Exchange FX Margin contracts Exchange Equity Index Margin contracts	http://www.tfx.co.jp/en/mkinfo/report.shtml

Clearing Business

When a contract is executed between the Clearing Members, TFX automatically and immediately replaces, and acts as, the selling Clearing Member to the buying Clearing Member and buying Clearing Member to the selling Clearing Member, thus TFX becoming the counterparty to both the selling and buying Clearing Members of the contract. Thereupon, TFX acquires all the rights and assumes all the obligations of each Clearing Member relative to the other Clearing Member with respect to the contract, and pay/receive margins and settles the transaction as the counterparty to each Clearing Member. TFX has been performing such business as the Clearing Business approved under the FIEA. The obligations of the Clearing Members are assumed by TFX immediately following the transactions are executed between the Clearing Members. This framework drastically mitigates counterparty risks which might cause issues in OTC transactions.

Governance Structure

TFX establishes a robust governance structure as a major financial market infrastructure.
TFX's Board of Directors is composed of three executive board members (one President and CEO and two Managing Directors) as well as five non-executive board members. The Board of Directors makes decisions on important matters regarding fundamental management policy and business activities, and supervises the directors' performance of duties.
TFX is a company with the Board of Auditors. The Board of Auditors is composed of one Standing Statutory Auditor and two Outside Statutory Auditors. The Statutory Auditors monitor directors' performance of duties and submits an audit report to the shareholders' meeting in accordance with the Basic Policy for the Creation of Internal Control System ("Internal Control Policy").

The Market Operation Committee is composed of directors and officers of major Clearing Members and academic experts and can render opinions on request for advices from the Board of Directors on important matters in terms of financial instruments market operation. This framework enables TFX to reflect opinions and needs from market participants including Clearing Members. (*See*, Principle 2 "Governance" for further details.)

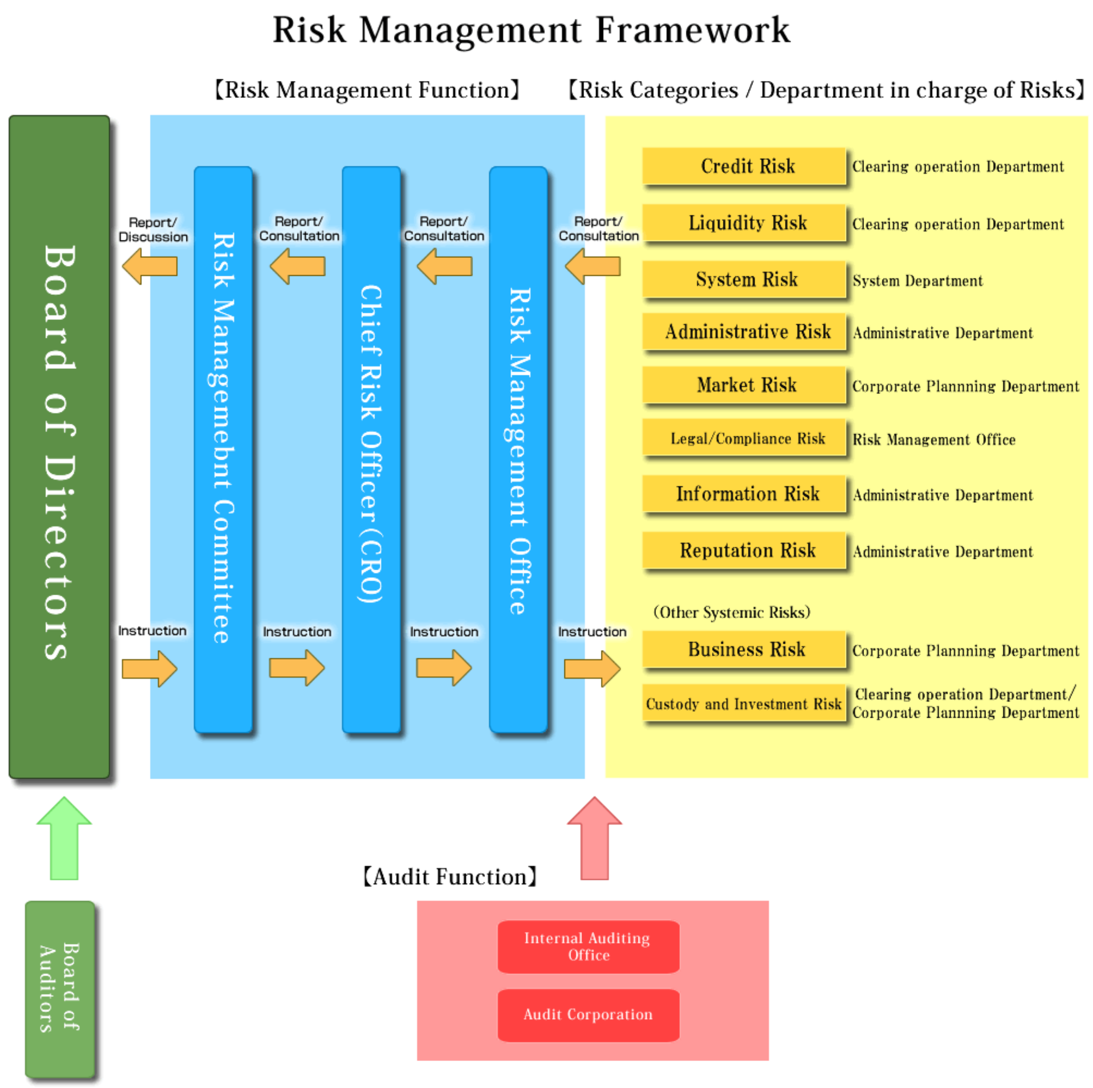
Risk Management Framework

TFX's Board of Directors has established the General Risk Management Policy, which specifically prescribes, among other things, major risks subject to management, the definition of risk management, risk management framework, and risk management method.
Furthermore, TFX's Board of Directors has established the Risk Management Committee, Chief Risk Officer ("CRO") who supervises risk management affairs and the Risk Management Office which conducts risk management operation.

The Risk Management Office compiles all the reports sent from the departments, each of which is in charge of the relevant risk management, and further reports to CRO the compiled result therefrom on a daily basis. CRO then makes a monthly report on them to the Risk Management Committee.

The Risk Management Committee has to deliberate any required matters pursuant to the Rules of the Risk Management Committee and has to make quarterly and annual reports to the Board of Directors.

The Board of Directors decides on any important matters about the risk management and has to review the General Risk Management Policy, at least once a year, for any necessary amendments or revisions thereto.



Legal Basis

TFX has been approved as a clearing house under the FIEA and provides the Clearing Business in compliance therewith as well as with the laws related to Clearing Business (*e.g.*, the Civil Code, the Companies Act, Cabinet Office Ordinance on Financial Instruments Clearing Organizations, etc.).
TFX prescribes its primary business rules in its Articles of Incorporation and Clearing Regulations in accordance with the provision of FIEA. The Clearing Regulations and major rules have been approved by JFSA. In addition, a written undertaking that every Clearing Member has submitted to TFX provides that the Clearing Members shall comply with any and all rules of TFX, and that rights and obligations between and among TFX and the Clearing Members shall be governed and interpreted by the laws of Japan. These frameworks ensure legal certainty that the TFX rules are surely applicable to the subject matters involving the market participants.

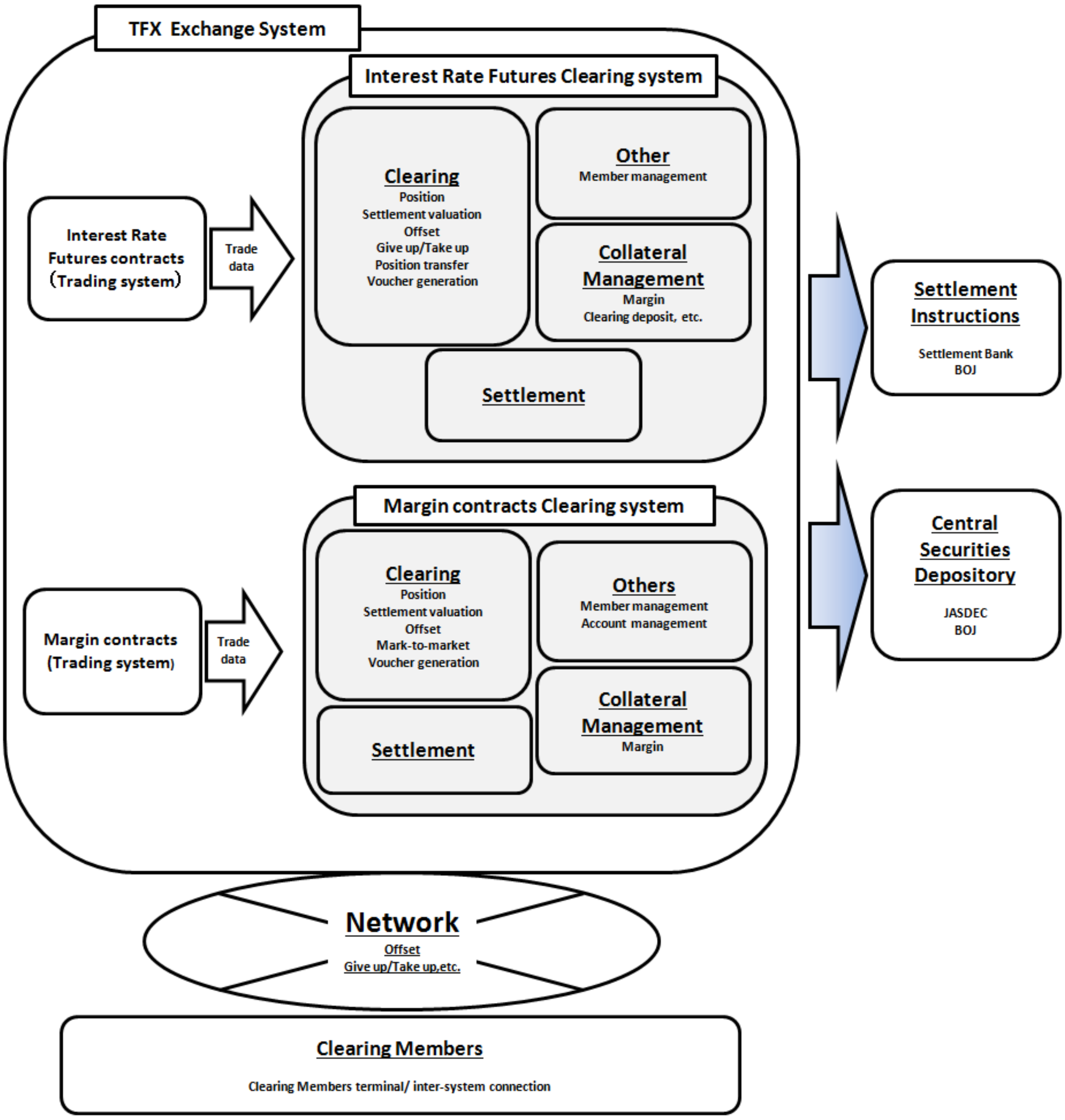
TFX identifies and verifies the possibility of conflict-of-law issues across different jurisdictions. Since certain of Clearing Members are established in European Union ("EU") countries, TFX has submitted European Securities and Markets Authority ("ESMA") an application pursuant to Article 25-1 of the European Market Infrastructure Regulation ("EMIR"). Thus, TFX has been granted as a Third-Country CCP ("TCCCP") which is permitted to provide clearing services for the Clearing Members and trading institutions established within EU.

When TFX accepts US Treasury Securities as eligible collateral, the United States of America and countries in which such collateral is held will be relevant jurisdictions, however, US Treasury Securities have never been deposited to TFX to date (*See*, Principle 1 "Legal Basis" for further details.).

TFX's System

An entire structure and overview of TFX's system is illustrated on the following page.
TFX outsources development and operation of its clearing system to outside companies and properly controls them in accordance with the Security Guidelines.

An Entire Structure and Overview of TFX's System



IV. Principle-by-Principle Summary Narrative Disclosure

General Organization

Principle 1: Legal Basis

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

Key Consideration 1:
The legal basis should provide a high degree of certainty for each material aspect of an FMI's activities in all relevant jurisdictions.

Material Aspects

The following are material aspects which require legal certainty in TFX's business as a CCP.

・Arrangements for Clearing Business
・Arrangements for settlement finality
・Netting arrangements
・Collateral arrangements
・Arrangements for default procedures
・Arrangements for linkages with other FMIs

TFX does offer neither securities settlement nor Delivery Versus Payment ("DVP").

Arrangements for Clearing Business

TFX engages in Clearing Business in accordance with the FIEA and any and all other laws related to Clearing Business (Civil Code, Companies Act, Cabinet Office Ordinance on Financial Instruments Clearing Organizations, etc.) and under the supervision of regulatory authority ("JFSA"). TFX is compliant with the JFSA's Guidelines. TFX is also subject to oversight by BOJ. TFX offers the Clearing Business based on the Clearing Regulations and other associated rules as stipulated in Article 156-7 of the FIEA. Clearing Members have to comply with the TFX rules as agreed by each Clearing Member in a written undertaking submitted to TFX.

Thus, TFX has secured legal certainty for arrangements for the Clearing Business.

Arrangements for Settlement Finality

The TFX rules clearly prescribe the cut-off time for both payment obligations and deposit of collateral. Settlements made by the cut-off time are considered to be final at the point in time where the payment process has completed. (*See*, Principle 8 "Settlement Finality" for further details.)
Thus, the Clearing Members can clearly recognize the point at which their obligations are fulfilled.

Netting Arrangements

The Clearing Regulations have specific provisions related to close-out netting arrangements for credits and debts between TFX and Clearing Members in the case of a Clearing Member's default. The FIEA also provides that such close-out netting arrangements shall prevail over general insolvency procedures.

Collateral Arrangements

TFX collateral related rules prescribe that the purpose of collecting margin from Clearing Members and their customers is to secure fulfillment of obligations with regard to their positions and that TFX shall hold the margin of the Clearing Members' own proprietary positions and their non-proprietary positions separately.
In addition, Clearing Members' collateral and customers' collateral are segregated from TFX's own assets, in compliance with the requirements of the FIEA.

Arrangements for Default Procedures

The TFX rules prescribe the procedures in the case of a Clearing Member's default.
The Clearing Regulations prevail over general insolvency procedures because the FIEA[3] provides that, in a case where insolvency proceedings have commenced in respect of a Clearing Member, the business rules set forth by the relevant Financial Instruments Clearing Organization shall determine and govern the calculation of the amount of its or the Clearing

[3] Article 156-11-2-1, FIEA

Member's claim arising out of outstanding positions or other means of settlement in relation thereto. Thus, the legal certainty has duly been secured for arrangements for default procedures.

TFX also views a recovery or orderly wind-down in the event of FMI (CCP)'s default to be a matter requiring a high degree of legal certainty, so that TFX intends to take appropriate actions, given the international regulatory development in the future in this respect.

Arrangements for Linkages with Other FMIs

Whereas TFX has already established links with BOJ, Japan Securities Depository Center, Inc. ("JASDEC"), Euroclear and LIFFE Administration and Management, the links under actual use are those with BOJ and JASDEC. (*See*, Principle 20 "FMI Links" for further details.)

Key Consideration 2:
An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.

The TFX rules, procedures and contracts (including amendments) have been developed based on the adequate and sufficient legal analysis and, when necessary, upon legal consultation with external legal counsel, and their legal conformity with all relevant laws and regulations has been verified. Additionally, when TFX's key rules are proposed to be amended, JFSA reviews and approves the amendment before the implementation, so that the conformity of the TFX rules with the applicable laws and rules are double-checked.

Furthermore, in respect of any proposed amendments to the rules that may have a significant effect on its Clearing Members, TFX hears opinions and comments from Clearing Members, the Market Operation Committee and the public, through discussions, consultations and public comments. By doing so, TFX ensures the clarity of its rules and avoids any misunderstandings of the concerned parties on the proposed amendments.

To date, no inconsistency has been identified in respect of the TFX rules, procedures or contracts with the applicable laws and regulations thereto.

Key Consideration 3:
An FMI should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way.

TFX explains to its Clearing Members and relevant authorities about the legal basis of its business when required or necessary. Also related rules and explanatory documents are publicly available on its website.

Key Consideration 4:
An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.

Effectiveness of TFX's Rules, Procedures, and Contracts

TFX clearly prescribes its basic rules for Clearing Business in the Articles of Incorporation and the Clearing Regulations, in compliance with the FIEA. A written undertaking that every Clearing Member submits to TFX sets forth matters, *inter alia*, as follows:

- Clearing Members must comply with the TFX rules;
- Rights and obligations are wholly governed by the laws of Japan; and
- All litigation between TFX and Clearing Members shall be subject to the jurisdiction of the Tokyo District Court.

The FIEA also provides that, in the case of the Clearing Member's default (herein after such Clearing Member individually or collectively called "defaulting Clearing Member(s)"), the TFX rules prevail over general insolvency procedures as for any legal matters for the rights and obligations between a defaulting Clearing Member and TFX or other members.

When a Clearing Member is subjected to the insolvency procedures in a foreign jurisdiction the foreign insolvency procedures may have an effect in Japan only on and after the issuance of an order of recognition for such procedures by the Japanese court pursuant to the "Act on Recognition of and Assistance for Foreign Insolvency Proceedings." The foreign insolvency proceedings may only be enforced on the defaulting Clearing Member's assets located in Japan upon the Japanese court's separate issuance of an order such as an administration order. Therefore, the insolvency procedures in a foreign jurisdiction commenced with respect to a defaulting Clearing Members has only a very limited effect.

As seen above, the TFX rules, procedures and contracts have a high degree of legal certainty not being void, reversed or suspended, and actions taken by TFX based on the TFX rules have never been challenged or questioned due to the legal uncertainty of the TFX rules.

Key Consideration 5:
An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.

TFX identifies and reviews the risks arising from any potential conflict of laws across jurisdictions based on the latest information obtained from Clearing Members, law firms, and JFSA etc.

Since some of Clearing Members are established in European Union ("EU") countries, TFX submitted an application based on Article25-1 of the EMIR and are recognized as a Third Country CCP ("TCCCP").

TFX conducts its Clearing Business only in Japan and does the business exclusively for products listed on its market. TFX accepts only Japanese Yen, as the settlement currency, and collateral securities actually deposited at TFX are limited to Japanese Government Bonds and stocks listed in Japan. Therefore, TFX considers that legal risk across multiple jurisdictions is highly limited.
In addition, TFX does not clear any product having a complicated risk profile such as CDS, etc.

Principle 2: Governance

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

Key Consideration 1:
An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.

The FIEA and the JFSA's Guidelines require a CCP to have sound and appropriate business operations in order to serve the objectives of ensuring the stability of financial system in Japan and protecting investors, etc. In its Corporate Philosophy Statement, TFX specifies the following objectives to serve the public interest:

(1) to establish fair, reliable and convenient financial instruments markets as a public infrastructure and contribute to a sound development of financial and economic system in Japan; and

(2) to be an advanced and comprehensive financial exchange that consistently challenges to create a new value for market participants and establishes a robust management foundation.

Additionally, TFX formulates a medium-term management plan in accordance with the Corporate Philosophy Statement and sets forth an annual business plan every fiscal year based on the medium-term management plan.

Officers and employees of TFX conduct business activities in conformity with the Corporate Philosophy Statement, the medium-term management plan, the annual business plan and the Standard of Conduct.

Key Consideration 2:
An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.

TFX is a limited-liability and stock company established under the Companies Act and a CCP which is subject to the supervision of JFSA under the FIEA.

TFX prescribes fundamental governance arrangements in the Articles of Incorporation to satisfy the requirements for a CCP under the FIEA and the JFSA's Guidelines, etc.

Governance Arrangements

TFX Board of Directors is composed of three executive directors (one President and CEO and two Managing Directors) as well as five non-executive directors. The Board of Directors makes decisions on the basic management policy of TFX and on important affairs relating to its business operations, and supervises directors' performance of duties.

TFX is a company with the Board of Auditors. The Board of Auditors is composed of one Statutory Auditor and two Outside Statutory Auditors. The Board of Auditors inspects directors' performance of duties in accordance with the Internal Control Policy and submits an audit report to the shareholders' meeting.

The names and roles of the Committees that TFX sets are as follows:

(Self-regulatory Committee)
The Self-regulatory Committee makes decisions on self-regulatory operations, based on delegation from the Board of Directors.[4]
Committee members are selected from among directors by the resolution of the Board of Directors. Two of three directors are non-executive directors.

(Discipline Committee)
The Discipline Committee responds to inquiries from the Self-regulatory Committee and provides an opinion on matters regarding self-regulatory operations.
The Self-regulatory Committee assigns committee members who have a deep insight enough to make a fair judgment.

(Market Operation Committees)
TFX has the Interest Rate Futures Market Operation Committee and the FX/Equity Index Market Operation Committee. The Committees respond to inquiries from the Board of Directors and provide opinions on important matters concerning the operations of financial instruments market. The Board of Directors assigns committee members from directors and officers of Clearing Members and experts capable of making a fair judgment about operations of financial instruments markets.

(Risk Management Committee)
The Risk Management Committee deliberates important matters with regard to risk management, including but not limited to those related to establishment of the General Risk Management Policy, and brings and reports the matters to the Board of Directors as required.

[4] It means operations that TFX conducts, as a limited liability and stock-company, to ensure fairness, transparency, and credibility in the markets. In particular, it refers to the operations such as assessment on Members' transactions, inspection of Clearing Members and assessment on trading membership qualifications. The placement of the Self-regulatory Committee and its operations are subject to the FIEA.

The Risk Management Committee is composed of the President and CEO, Managing Directors, Executive Officers and the heads of departments.

Disclosure of Governance Arrangements

TFX discloses the Articles of Incorporation that prescribe its governance arrangements and the Internal Control Policy on its website. TFX also discloses in its "Annual Report" the structures of the Board of Directors and the Board of Company Auditors as well as the company outline including its organisational chart.

> Key Consideration 3:
> The roles and responsibilities of an FMI's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its function, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.

Roles and Responsibilities of the Board of Directors

Roles and Responsibilities of the Board of Directors are set forth in the Companies Act, the Articles of Incorporation and the Rules for the Board of Directors. The Board of Directors not only determines matters regarding business operations of TFX but also supervises business activities and directors' performance of duties.

The Board of Directors receives reports regarding business activities and determines important matters as follows:

- Matters regarding management (the basic management policy, the medium-term management plan, the annual business plan, etc.)
- Matters regarding the operations of TFX markets (revisions to the Trading Regulations, the Clearing Regulations, etc.)
- Matters regarding the execution of TFX business (important matters regarding compliance, risk management, etc.)
- Matters regarding directors and officers (the appointment and removal of the Representative Director and executive directors, etc.)
- Other Matters (important matters regarding the Internal Control System, etc.)

Managing Conflicts of Interest

In order to prevent a director from harming the interest of TFX for his/her own benefit, according to the Companies Act, when the director engages in a conflict-of-interest transaction, the director is required to obtain an approval from the Board of Directors while he or she cannot exercise his/her voting right at such resolution.

If an Auditor finds that a director engages in a certain misconduct, or is likely to engage in such conduct, or that there exists any incident in violation of laws and rules or the Articles of Incorporation or any other extremely unethical or inappropriate conduct, the Auditor will report them to the Board of Directors without delay and will further report the results of the investigation to a shareholders' meeting.

The Statutory Auditors annually review if they are any transactions involving conflicts of interest, when preparing an annual audit report.

Review of Performance of the Board of Directors

Performance of the Board of Directors is reported to the annual general shareholders' meeting as a part of the annual business report.

The performance of each director is reviewed and evaluated based on business performance reports presented by the relevant director to the Board of Directors, and such review and evaluation are taken into consideration by the Nominating and Compensation Committee in determining the compensation of directors and the nomination of candidates for directors.

Key Consideration 4: The board should contain suitable members with the appropriate skills and incentives to fulfill its multiple roles. This typically requires the inclusion of non-executive board member(s).

Board Members' Competency

The FIEA requires a CCP to make its human resources composed of persons who "have sufficient knowledge and experience for conducting financial instruments obligation assumption service appropriately and certainly and have sufficient social credibility." In light of this requirement, the TFX Board of Directors nominates candidates for directors who have a wealth of experience and knowledge with regard to management, finance and law, in reference to the result of deliberation by the Nominating and Compensation Committee.

Board Member Incentives

TFX sets a reasonable standard to determine the compensation for the Board members, enough to retain their incentives to fulfill their roles.

The Board of Directors determines annually the compensation to the directors based on the responsibility and performance of each director within the total amount approved by the shareholders' meeting and also referring to the result of deliberation at the Nominating and Compensation Committee.

Key Consideration 5: The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.

Roles and Responsibilities of Management

TFX's senior management is composed of executive directors responsible for the execution of business. Their roles and responsibilities are determined by the Board of Directors as the business assignments to the respective executive directors.

The senior management is responsible for faithfully executing the business that they are in charge and improving the performance of the TFX business in accordance with the basic management policy, the medium-term management plan as well as the annual business plans.

The senior management also reports monthly TFX's financial condition and operational status to the Board of Directors and annually TFX's annual business report and financial results to the shareholders upon the Board of Directors' resolution.

Experience, Competency, and Integrity

The FIEA requires a CCP to make its human resources composed of persons who "have sufficient knowledge and experience for conducting financial instruments obligation assumption service appropriately and certainly and have sufficient social credibility".

Based on the above, TFX's Board of Directors nominates candidates for directors who have a wealth of experience and knowledge with regard to management, finance and law. TFX's senior management has sufficient experience, competency and integrity required to accomplish CCP's operation and risk management.

In accordance with the procedures provided for in Companies Act, the Board of Directors has the right to propose the dismissal of any director who is considered to be ineligible for its role due to his or her violation of law, etc. and to request a resolution for dismissal at the shareholders' meeting.

Key Consideration 6: The board should establish a clear, documented risk-management framework that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.

Comprehensive Risk Management Framework

TFX Board of Directors determines important matters regarding risk management such as an establishment of General Risk Management Policy, an introduction of the Risk Management Committee and CRO.
The Board of Directors considers appropriate measures, if necessary, when it receives 1) a periodical report on risk management status and its assessment results and 2) a non-regular report on an occurrence of critical risk event such as defaults of Clearing Members or a significant system failure.

The Board of Directors also receives a report at least once a year on the results of validation of overall risk management framework, and provides necessary instructions to make the risk management system to work sufficiently, including but not limited to an instruction to review the General Risk Management Policy. (*See*, Principle 3 "Framework for the Comprehensive Management of Risks" for further details.)

Key Consideration 7: The board should ensure that the FMI's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public..

Identification and Consideration of Stakeholders' Interests

When TFX makes important decisions on its system design, rules, overall business strategy etc., it takes into account the interest of stakeholders such as Clearing Members etc.

TFX sets the Market Operation Committee as an advisory committee pursuant to the Articles of Incorporation. The Market Operation Committee, which is composed mainly of Clearing Members, may express an opinion to the Board of Directors in response to their inquiry.
A wide range of opinions are also collected by soliciting public comments before establishing new framework and making significant rule changes.

Disclosure

TFX releases and discloses its key decisions such as the medium-term business plan, major rule revisions and others via its website.

Principle 3: Framework for the Comprehensive Management of Risks

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

Key Consideration 1:
An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.

Risks that Arise in or Are Borne by the FMI

TFX specifies the risks which it is mainly exposed to, such as credit risks, liquidity risks, system risks, administrative risks, market risks, legal compliance risks, information risks, and reputation risks. TFX has built a framework for the risk management in response to the characteristics of each risk.
Systemic risk, business risk, and custody and investment risk which are written in Principle 2 of PFMI, are also managed as compounded risk of those written above.

Comprehensive Risk Management Framework

TFX Board of Directors has established the General Risk Management Policy. Major risks subject to management, the definition of risk management, risk management framework, and risk management method are specifically provided in this Policy.

TFX has the following basic policies regarding its risk management and these policies are reviewed at least once a year or when appropriate.

- the General Risk Management Policy
- the Credit Risk Management Policy
- the Liquidity Risk Management Policy
- the System Risk Management Policy
- the Administrative Risk Management Policy

Furthermore, the TFX Board of Directors has established the Risk Management Committee, as well as CRO who heads risk management and the Risk Management Office which conducts risk management operations.

The department responsible for each risk, stated in the General Risk Management Policy, will measure, monitor and manage the assigned risk, and will make reports the results therefrom to the Risk Management Office.

The Risk Management Office compiles these reports submitted from each department and makes a daily report to CRO, who, in turn, makes a monthly report to the Risk Management Committee.

In accordance with the "Rules of Risk Management Committee," the Risk Management Committee from time to time deliberates any necessary matters, and makes quarterly reports and an annual report to the Board of Directors.

The Board of Directors determines any important matters relating to risk management and reviews a set of basic risk management policies listed above at least once a year.

Key Consideration 2:

An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.

Provision of Relevant Information

TFX makes available to the Clearing Members and Trading Members the following information to enable them to manage and control the risks by themselves:

- For Clearing Members, a real-time contract information of a Trading Member(s) who settles their contracts with the relevant Clearing Member;
- For Clearing Members, updated information about margin requirements and mark-to-market value of collateral in order for the Clearing Member to manage their risks; and
- For Trading Members, a real-time contract information.

TFX uses SPAN® system to calculate margin for Interest Rate Futures contracts and provides a SPAN® file on the website so that Clearing Members are able to calculate the margin requirements by themselves for their customers.

For Margin contracts, Margin Reference Amount is announced on TFX's official website.

Incentives for Risk Management

As a measure for taking care of a Clearing Member whose risk in Clearing Business becomes excessive, TFX is considering adopting measures such as raising margin requirements for such Clearing Member, collecting additional Clearing Deposit for their excessive risk amount, and any measure for mitigating risks of the Clearing Member, so that it provides an incentive for the Clearing Member to manage their positions proactively.

TFX holds the Market Operation Committee at which various deliberations are made among the committee members and collects public comments, in designing risk management framework, whereby TFX is making efforts to make the risk management more effective, reflecting opinions of Clearing Members and their customers to the risk management framework.

Key Consideration 3:
An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk-management tools to address these risks.

Management of Risks from Interdependencies on Settlement, etc.

TFX has interdependencies with the settlement banks, custodian banks, and liquidity providers. TFX sets standards for selecting these entities, such as credit rating, periodically monitors financial information of these companies and manages the settlement risk, custody risk, and liquidity risk arising from such interdependencies with these entities.

Management of Risks from Interdependencies on Systems

TFX identifies risks associated with IT-service providers, public utility companies, and other related parties, as set forth in the "System Risk Management Policy," and monitors and controls such risks thereunder.
In outsourcing the operation, development or administration of system, TFX selects the contractors after valuating and considering them in light of the "Security Guidelines."

Action Plan for the Risks from the Relationship with Other Entities in Emergencies (Business Continuity Plan)

TFX has set up the Business Continuity Plan ("BCP"), such that in case of the occurrence of any risks which threaten TFX's business continuity, such as major earthquakes or terrorisms, TFX may continue its business as much as possible and may minimize the impact on the Members and institutions and organisations concerned.

TFX has set up backup offices so as to continue its business in case that the main office becomes unavailable under unexpected circumstances.

Furthermore, in case that, due to wider area disaster, both the main office and the first backup office become unusable, TFX will switch the trading operation to the second back office and will continue the business.

Key Consideration 4:
An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.

TFX assumes the following risk scenarios that may potentially prevent it from being able to provide its clearing operations and services as a going concern; 1) a case where losses resulting from defaults of Clearing Members could not be sufficiently covered with the financial resources; or 2) a case where, due to its business failure, TFX suffered either a substantial decrease in its profit or an expense increase, which would consequently impair TFX's net assets.

As for the losses resulting from the Clearing Member's default, Article 156-10 of the FIEA provides, "A Financial Instruments Clearing Organization shall stipulate in its business rules that any and all losses arising out of the financial instruments obligation assumption service due to a default by a Clearing Member shall be borne by such Clearing Member and shall take any other measures for securing the appropriate performance of the financial instruments obligation assumption service." Accordingly, TFX has stipulated the Loss Compensation Mechanism in Article 40-40.3 of the Clearing Regulations to fully cover the losses resulting from the Clearing Member's defaults.

In cases where TFX`s capital is greatly impaired by its business failure, TFX is prepared to take countermeasures such as reviewing the business plan and reducing the expenses etc.

TFX will consider developing a recovery and wind-down plan by closely observing the movement of international regulations.

（*See*, Principle 15 "Business Risk" for further details.）

Management of Credit Risk and Liquidity Risk

Principle 4: Credit Risk

An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.

Key Consideration 1:
An FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current exposures, potential future exposures, or both.

Source of Credit Risk Suffered by TFX

TFX is exposed to credit exposures that arise mainly from the default of Clearing Members. In addition, credit risks caused by the default of the settlement banks and custodians of various collateral (herein-after called "Settlement and Custodian Banks") are also managed as sources of risks. TFX has a robust framework in place to manage these risks appropriately.

The Framework of Management for Credit Risks Arising from Clearing Members

TFX has set out the "Credit Risk Management Policy" and, in accordance with this policy, has established the following conservative yet robust credit risk management framework, and TFX reviews its sufficiency at least once a year:

(1) Screening of Clearing Members

When applying for a clearing membership, a Clearing Member is required to satisfy the eligibility standards, such as financial resources and personnel organisation, as stipulated in Clearing Regulations[5].

Due to these requirements, the Clearing Members are, in principal, limited to firms that have financial strength to fulfill the payment, clearing and settlement obligations owed to TFX.

The Clearing Members must always meet requirements for financial basis, such as net asset amount, net assets-capital ratios and capital adequacy ratios, prescribed as the eligibility standards for clearing membership, and periodically report their financial conditions to TFX. If a Clearing Member ceases to satisfy any of the eligibility standards, it is required to report TFX the details thereof immediately. TFX monitors financial conditions of its Clearing Members based on these reports[6].

(2) Margin System

TFX daily measures and monitors credit risks that arise from the default of Clearing Members, and requires the Clearing Members to deposit an initial margin for covering potential future exposures and a variation margin for covering current exposures. Margin payments are made between TFX and Clearing Members on a daily basis.

In addition, for Interest Rate Futures contracts, TFX may request Clearing Members to deposit intraday additional margin if necessary[7].

(3) Probable Maximum Loss Calculation and Financial Resources Framework

TFX calculates daily the amount of credit risks associated with possible defaults of its Clearing Members under extremely stressed market conditions (herein-after called "Probable Maximum Loss" (PML)), and secures financial resources to cover such amount.

Financial resources are comprised of Exchange Margin and Clearing Deposit etc. deposited by expected defaulting members, Default Compensation Reserve of TFX, and Clearing Deposit deposited by non-defaulting members. These resources will be applied to the loss suffered by TFX due to Clearing Members' defaults[8].

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[5] Chapter 2 , Clearing Regulations

[6] Article 14-4,14-5, Clearing Regulations and Article 7, Enforcement Regulations for Clearing Regulations

[7] Article 15.1(3), Regulations for Margin and Unsettled Market Derivatives Contracts

[8] Chapter 8, Clearing Regulations

The Framework of Management of Credit Risks Arising from Settlement and Custodian Banks

TFX manages credit risks arising from the Settlement and Custodian Banks according to the "Rules of Risk Management for the Settlement and Custodian Banks".

The Settlement and Custodian Banks are selected on the conditions that they have banking licenses and business offices in Japan, and satisfy the requirements prescribed by TFX.

Key Consideration 2: An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.

TFX identifies sources of credit risks, and regularly measures, monitors and control such risks as follows:

Credit Risk s Arising from Clearing Members

TFX is exposed to credit risks arising from the defaults of Clearing Members. Credit risks are comprised of current and potential future exposures. Both exposures derive from market price changes in the prices of open positions of the Clearing Members.

TFX measures current exposures of each product, at least a daily basis, by revaluating each Clearing Member's open positions by daily settlement price. Also, it measures potential future exposures of each Clearing Member's open positions daily by employing extreme but plausible stress scenarios.

In order to cover current and potential future exposures, TFX imposes variation margin for the former and initial margin for the latter on Clearing Members and pays to or receives these margins from them on a daily basis.
Moreover, TFX prevents aggregation of current exposures with the following frameworks:

- For Interest Rate Futures contracts, if price fluctuations in the market become very high, TFX may request Clearing Members to deposit additional intraday margin during the day.
- For Exchange FX Margin contracts, a Clearing Member is obligated: 1) to calculate

margin requirements of both individual customers and non-individual customers (excluding "Professional Investors"[9] as defined in the FIEA) by revaluating their positions at certain time intervals (for individual investors: less than 10 minutes, for non-individual investors: less than 5 minutes), 2) to assess and judge the sufficiency of margin deposited by the respective customers relative to the minimum amount of margin required by a Clearing Member, and 3) to forcibly close out their positions when his/her margin becomes deficient to a certain extent.

TFX can monitor, in real time, evaluated profit or loss of each Clearing Member's positions.

TFX is in the process of introducing a framework which prevents the concentration of credit exposures to a particular Clearing Member by monitoring of Clearing Members' credit exposures and, if necessary, raising required amount for Exchange Margin or Clearing Deposit, or taking other measures for mitigating such risk.

Credit Risks Arising from the Settlement and Custodian Banks

In order to manage credit risks of the Settlement and Custodian Banks, TFX has the "Rules for Risk Management of the Settlement and Custodian Banks" and monitors these Banks on an ongoing basis.

Credit risks from the Settlement and Custodian Banks may arise in relation to (1) the settlement of funds between TFX and a Clearing Member, (2) deposits made by TFX at the Settlement and Custodian Banks (*i.e.*, funds deposited by Clearing Members and TFX's own fund).

TFX manages the credit risks arising from the Settlement and Custodian Banks, by limiting them to those with sound financial standings, monitoring their financial conditions and diversifying the funds to several banks with lower credit risks.

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[9] Article 2-31 and 34-3, FIEA.

Key Consideration 3: A payment system or SSS should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see Principle 5 on collateral). In the case of a DNS payment system or DNS SSS in which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing, and settlement processes, such an FMI should maintain, at a minimum, sufficient resources to cover the exposures of the two participants and their affiliates that would create the largest aggregate credit exposure in the system.

This consideration is not applicable to TFX as it does not install an SSS.

Key Consideration 4: A CCP should cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see Principle 5 on collateral and Principle 6 on margin). In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.

Credit Risks Arising from Clearing Members and Financial Resources to Cover Them

TFX covers its current and potential future exposures to each Clearing Member with a high degree of confidence. TFX also covers its PML which is calculated on the assumption of Clearing Members' defaults with financial resources, such as Exchange Margin, Default Compensation Reserve and Clearing Deposit.

(1) Exchange Margin

① Initial Margin

TFX applies a different type of margin calculation systems depending on its products and customers' peculiarities. In any case, the margin calculated by any of the calculation systems covers potential future exposures with a high degree of confidence. (*See*, Principle 6 "Margin" for further details.)

② Variation Margin

For Interest Rate Futures contracts, open positions are marked-to-market at the close of each trading day, and a difference in the value of positions arising from mark-to-market and option premium are cleared between TFX and the Clearing Member on the next trading day as valuation margin to cover current exposures.

For Margin contracts, TFX revaluates positions held at the close of each trading day by the daily settlement price and requires Trading Members to maintain the amount larger than the required margin amount which is a sum of amount equivalent to the unrealized loss and the initial margin. With this framework, TFX covers its current and potential future exposures.

TFX validates the sufficiency of Exchange Margin by way of daily back testing.

(2) Clearing Deposit

TFX calculates its financial resources that shall be maintained against Clearing Members' defaults (herein-after called the "Financial Resources for Loss Compensation") to cover not only the default of a Clearing Member and its affiliates that would potentially cause the largest risk to TFX but also the default of Clearing Members with smaller net assets. TFX aims at covering the risk of the occurrence of chain of defaults by taking into account these defaults of Clearing Members with smaller net assets in the calculation.

The amount required for the Financial Resources of the Loss Compensation equals to the amount of PML calculated under stress scenarios that include the largest historical price change during a certain sample period. The total amount of Clearing Deposits that Clearing Members shall deposit is the amount of PML reduced by (i) Exchange Margin deposited by the estimated defaulting Clearing Members and (ii) Default Compensation Reserve saved by TFX.

The amount of Clearing Deposit to be deposited by each Clearing Member is determined by allocating the total amount of Clearing Deposit to each one according to its own risk amount, which shall be reviewed monthly and notified to each Clearing Member at the beginning of every month.

TFX may request Clearing Members to deposit an ad hoc additional Clearing Deposit when deemed necessary.

Clearing Members' Clearing Deposit will be used to cover losses of TFX and if such losses cannot be covered by the Clearing Deposit, then Clearing Members will be required to contribute additional Clearing Deposit.

In the case that Clearing Deposit is used for covering losses caused by the defaults of Clearing Members, non-defaulting Clearing Members shall replenish deficiencies in Clearing Deposit by the date TFX designates.

Handling of Eligible Securities

Clearing Members may deposit Exchange Margin, Clearing Deposit and Market Entry Deposit by cash, Japanese Government Bonds, U.S. Treasury Securities, and stocks listed on financial instruments exchanges in Japan. Provided however, Exchange Margin for Margin contracts shall be deposited by cash only.

In accordance with collateral related rules[10], TFX may take the following measures if necessary; (i) reduce hair-cut rates of eligible securities, (ii) limit acceptance of a certain eligible security, (iii) limit the use of securities as margin and (iv) any other measure that TFX deems it necessary.

Eligible securities are revaluated on a daily basis by applying hair-cut rates reflecting the potential market risk.

Governance Arrangements for Total Financial Resources

TFX assesses sufficiency of its financial resources by undertaking stress and back tests for

[10] Article 9, Enforcement regulations for Regulations for Margin and Unsettled Market Derivatives Contracts

credit risks on a daily basis in accordance with the "Credit Risk Management Policy." (*See*, Key consideration 5 of this principle for stress tests for credit risk)
The Clearing Operation Department reports the results of each test to the Risk Management Office and CRO on a daily basis, and takes countermeasures if deemed necessary.
The Risk Management Office analyses monthly the test results and CRO reports the results to the Risk Management Committee.
The Risk Management Committee reports the Board of Directors the status of credit risk management and its analysis every quarter, and the validation result on the sufficiency of its risk management framework annually.
The Board of Directors determines any important affairs relating to credit risk management and reviews the "Credit Risk Management Policy" at least once a year.

Key Consideration 5:
A CCP should determine the amount and regularly test the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions through rigorous stress testing. A CCP should have clear procedures to report the results of its stress tests to appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources. Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP should perform a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the CCP's required level of default protection in light of current and evolving market conditions. A CCP should perform this analysis of stress testing more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a CCP's participants increases significantly. A full validation of a CCP's risk-management model should be performed at least annually.

Stress Testing

TFX conducts daily stress testing on credit risks in order to determine if its Financial Resources of Loss Compensation are sufficient to cover its potential risks.

TFX stress tests include, on the assumption of an extreme but plausible market movements, the largest historical price change during a certain sample period and market movements based on hypothetical scenarios.

With these stress tests, TFX ensures that it maintains sufficient Financial Resources of Loss Compensation under stressed market conditions. (*See*, Key Consideration 6 for further details)

Results of stress tests are reported daily to the Risk Management Office and CRO. If it is determined that its Financial Resources of Loss Compensation are not sufficient, TFX will consider necessary actions such as reviewing and changing Clearing Deposit amount temporarily etc.

Status of credit risk management is reported to the Risk Management Committee monthly, and to the Board of Directors quarterly.

Review and Validation on Stress Testing

TFX conducts analysis on its stress tests at least monthly, and verifies their validity in scenarios, models and parameters. The stress tests will be reviewed as necessary when it is observed an increase in market volatility or any change in Members' conditions.

Also, TFX verifies annually overall validity of credit risk management framework, and reports the results to the Board of Directors.

Key Consideration 6:

In conducting stress testing, a CCP should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.

When conducting stress testing, TFX considers a wide range of price change scenarios that are extreme, but plausible. These scenarios are conservative ones which include the largest historical price change during a sample period and forward-looking hypothetical scenarios.

For historical scenarios, a sample period includes the time on or prior to launch of a subjected product.

These historical scenarios replicate an extreme but plausible event including the largest historical price change during a sample period.

Stress scenarios during the sample period include Gulf War (1990), the Great Hanshin-Awaji

Earthquake (1995), the Asian Financial Crisis (1997-1998), the insolvency of LTCM (1998), the September 11 attacks in the U.S. (2001), the Lehman Shock (2008), Flash Crash (2010), the Great East Japan Earthquake (2011) and European debt crisis (2011).
By including not only the largest historical price change but also hypothetical scenarios, which assume risks arising from fluctuations that cannot possibly occur under the current market environment, TFX prepares for the increase in volatilities.

TFX calculates credit exposures for the respective Clearing Members applying stress scenarios, and from its result, determines PML that is a sum of credit exposures of a Clearing Member whose credit exposures are the largest among all and those of Clearing Members with smaller net assets.

Key Consideration 7:
An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.

Allocation of Credit Losses

TFX specifies in the Clearing Regulations the priority order of application of Financial Resources for Loss Compensation and the method of requesting additional Clearing Deposit[11].
When the losses arising from defaults of Clearing Members cannot be covered by the collateral such as margin, deposited by the defaulting Clearing Members, such losses would be covered by other financial resources, such as Default Compensation Reserve of TFX and Clearing Deposit of the other Clearing Members who are not in default (herein-after called "non-defaulting Clearing Members").

Replenishment of Financial Resources

In the case that Clearing Deposit is used for covering losses caused by a Clearing Member's

[11] Chapter 8, Clearing Regulations

default, non-defaulting Clearing Members will be required in accordance with the Clearing Regulations to replenish deficiencies in Clearing Deposit by the date TFX designates,.

Principle 5: Collateral

An FMI that requires collateral to manage its or its participant's credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Key Consideration 1:
An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.

Eligible Collateral

TFX stipulates requirements of eligible collateral in its collateral related rules and accepts only collateral with low risks in terms of credit, liquidity and market.

Specifically, TFX accepts the following collateral from Clearing Members:

(1) Interest Rate Futures contracts

- Cash (Japanese Yen)
- Eligible securities (Japanese Government Bonds, Japanese municipal bonds, share certificates, corporate bonds, US Treasury Securities etc.)

(2) Margin contracts

- Cash (Japanese Yen)
- Eligible securities (Japanese government bonds, Japanese municipal bonds, share certificates, corporate bonds), provided that only cash is acceptable as Exchange Margin with respect to Margin contracts.

Acceptable government bonds are limited only to Japanese Government Bonds and US Treasury Securities, which have high credibility and high liquidity, with all ratings given by eligible credit rating agencies[12] being "A" or above. At present, no US Treasury Securities are

[12] "credit rating firm" as defined in Article 2.36 of the Financial Instruments and Exchange Act and "specified affiliated corporation" as defined in Article 116-3.2 of Cabinet Office Ordinance on Financial Instruments Business (Cabinet Office Ordinance No.52 of 2007)

deposited.

Eligible share certificates are limited only to those of companies listed on financial instruments exchange markets in Japan.

When a Clearing Member is going to deposit collateral, TFX confirms if it is eligible. TFX collateral management system verifies if collateral is eligible at the time of registration and automatically detects when collateral deposited becomes ineligible. Consequently, any Clearing Member cannot deposit ineligible collateral.

Wrong-Way Risk

The TFX rules do not allow a Clearing Member to deposit share certificates issued by the Clearing Member, its Parent Company, or its group affiliates, as collateral. By this means, TFX guards against Wrong-Way Risk with respect to collateral deposited by Clearing Members.

Key Consideration 2:
An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.

Valuation Practices

TFX values deposited collateral on a daily basis using market prices obtained from transparent public information source. Valuation of government bonds is conducted daily based on market prices such as reference prices published by Japan Securities Dealers Association.
Valuation of share certificates is conducted based on closing prices published by the relevant financial instruments exchanges as well.

Collateral Haircut Ratio

For bonds, TFX adopts haircut ratio to cover the largest historical 4-consecutive day price decline rate (100% confidence level) based on the sample data of price movements observed during the period of the past one year.
For foreign currency denominated bonds, TFX takes account of foreign exchange risk to be reflected on the haircut ratio.
Separately, as for share certificates, TFX adopts haircut ratio of 70 % in principle in accordance

with the FIEA and its associated rules.

<u>Review of Haircut Ratio</u>

TFX validates haircut ratio once a year for review. Further, TFX is prepared to reduce haircut ratio temporarily, if considerable movements in prices of eligible securities are detected.[13]

Key Consideration 3: In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.

TFX adopts conservative and stable haircut ratio which can cover extreme price movements under stressed market conditions. Consequently TFX believes that the need for procyclical adjustments is limited. (*See*, Key Consideration 2 of this Principle for Collateral Haircuts and Review of Haircuts)

Key Consideration 4: An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.

<u>Concentration Limits</u>

Concentrated holding of certain collateral assets may excessively affect the total value of the deposit if the prices of the held assets move. TFX is under deliberation of imposing limits on the number of share certificates (that can be) of a single company deposited in order to prevent this from happening.

Key Consideration 5: An FMI that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.

[13] Article 9, Enforcement Regulations for Regulations for Margin and Unsettled Market Derivatives Contracts, Article 10, Regulations for Eligible Securities for Market Entry Deposit, Article 10, Regulations for Eligible Securities for Clearing Deposit

The only cross-border collateral acceptable to TFX is US Treasury Securities, which have high liquidity and can be easily liquidated.
TFX manages the US Treasury Securities via a commercial bank in Japan which has an account at Central Securities Depositories in Europe, so that it has established the framework to issue instructions for deposit and disposal of the US Treasury Securities in a timely manner.

At present, no US Treasury Securities are deposited.

Key Consideration 6: An FMI should use a collateral management system that is well-designed and operationally flexible.

Primary Functionality of Collateral Management System

TFX reconciles the outstanding balance of the collateral and accepts and withdraws the collateral on a real-time basis, utilizing its collateral management function of the Clearing System. TFX also monitors collateral values on an ongoing basis evaluating them by applying the latest market prices and haircut ratio.

By accessing the TFX Clearing System, Clearing Members can make request for deposit/withdrawal of collateral and confirm the resulted balance on a real-time basis. In addition, the Clearing Members can recognize the dates of interest payment/redemption in respect of deposited collateral.

TFX sends instructions to transfer funds to the settlement banks' current accounts with BOJ, transfer Japanese Government Bonds, and change the payee of interest with respect to Japanese Government Bonds via data transmission from the TFX Clearing System to the BOJ-Net. By this means, TFX can maintain smooth operation even under stressed market conditions.

Principle 6: Margin

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Key Consideration 1:
A CCP should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves.

Margin System

TFX provides in-house clearing service and clears all derivative products listed and traded on the market operated by TFX. Margin requirements are calculated as per characteristics of products and attributes of customers.

Calculation Method

TFX adopts the following margin calculation methods appropriate for characteristics of products and attributes of customers. Details of the margin calculation methods and procedures to determine parameters and the Margin Reference Amount are stipulated in TFX margin related rules as published on the TFX website.

(1) Interest Rate Futures contracts

For Interest Rate Futures contracts, SPAN® margin system is used to calculate margin requirements at the portfolio base. TFX provides Clearing Members SPAN® parameters to enable them to simulate margin depending on changes in positions as well as to calculate margin requirements.

(2) Exchange FX Margin contracts

① Transactions by Individual Customers

TFX determines the Margin Reference Amount based on the maximum leverage ratio of 25 times as prescribed in the relevant laws and regulations. TFX has confirmed that the ratio fully covers confidence level of 99% or more in price movement data used in stress test with respect to at least three major currency pairs (USD/JPY, EURO/JPY, AUD/JPY). The Margin Reference Amount is weekly reviewed in principle.

② Transactions by Trading Members or non-individual customers

TFX determines the Margin Reference Amount under the TFX rules based on maximum leverage ratio of 150 times or 25 times depending on currency pairs. The Margin Reference Amount is monthly reviewed in principal.

(3) Exchange Equity Index Margin contracts

TFX determines the Margin Reference Amount to cover confidence level of 99% of the distribution of price movements, generated by a statistic method, from historical volatilities. The Margin Reference Amount is weekly reviewed in principal.

Deposit and Withdrawal of Margin

TFX calculates variation margin and initial margin requirements at least once a day, based on current market prices, to pay and/or receive them on the date of calculation or on the next following business day.

As for Interest Rate Futures contracts, TFX pays and receives margin at least daily. If the market moves abruptly in a day, TFX may require Clearing Members to deposit additional margin as an intraday margin. By this means, TFX can avoid increase in variation margin arising from significant intraday price movements.

As for Margin contracts, the margin is paid and received twice a day for a customer account and once a day for a house account. Separately, TFX requires initial margin to be deposited by a Clearing Member in advance of any new transaction, and if this requirement is not fulfilled, TFX will not accept new orders.

Key Consideration 2: A CCP should have a reliable source of timely price data for its margin system. A CCP should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.

Source of Price Data

TFX uses reliable price data in margin calculations.

TFX clears only listed products on its market and calculates margin requirements using Daily Settlement Prices (herein-after called "DSP") determined based on actual traded prices in the market. TFX adopts traded prices as DSP in principle, however, if such prices are not appropriate due to market conditions, TFX may determine DSP otherwise in accordance with procedures, thoroughly considering factors such as bid and ask prices, etc.

As all transactions which TFX clears are listed and traded on the TFX markets, the DSP never becomes unavailable.

Key Consideration 3:

A CCP should adopt initial margin models and parameters that are risk-based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. For a CCP that calculates margin at the portfolio level, this requirement applies to each portfolio's distribution of future exposure. For a CCP that calculates margin at more-granular levels, such as at the sub portfolio level or by product, the requirement must be met for the corresponding distributions of future exposure. The model should (a) use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the CCP (including in stressed market conditions), (b) have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products, and (c) to the extent practicable and prudent, limit the need for destabilising procyclical changes.

Initial Margin Model, Closeout Period and Sample Period

(1) Interest Rate Futures contracts

Margin Reference Amount (Price Scan Range) is determined by price movement range for futures and implied volatility for options, while Margin parameters are calculated based on confidence level of 99%, closeout period of 1 day, and sample period of 6 months.

TFX employs closeout period of 1 day considering high liquidity of these products.

While TFX determines Margin Reference Amount by product, margin requirements are calculated at the portfolio base taking into account inter-product and inter-contract month offsets by using SPAN® system. According to SPAN® system calculation logic, the maximum loss arising from a portfolio is calculated as initial margin requirements.

(2) Exchange FX Margin contracts

① Transactions by Individual Customers

TFX determines the Margin Reference Amount based on maximum leverage ratio of 25 times as prescribed in the FIEA and its associated rules and historical 5-trading day average price of each product. The Margin Reference Amount is weekly reviewed in principle. (Closeout period of 1 day and sample period of 5 days)

② Transactions by Trading Members or Non-Individual Customers

TFX determines the Margin Reference Amount based on maximum leverage ratio of 150 times or 25 times and historical 20-trading day average price of each product. The Margin Reference Amount is monthly reviewed in principal. (Closeout period of 1 day and sample period of 20 days)

(3) Exchange Equity Index Margin contracts

TFX determines the Margin Reference Amount to cover confidence level of 99% of the distribution of price movements generated, by a statistic method, from historical volatilities in daily price movements of each product for 24 weeks. The Margin Reference Amount is weekly reviewed in principal. (Closeout period of 1 day and sample period of 24 weeks and confidence level of 99%)

Key Consideration 4: A CCP should mark participant positions to market and collect margin at least daily to limit the build-up of current exposures. A CCP should have the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.

TFX variation margin covers current exposure. For each market, at least once a day, unsettled positions held by each Clearing Member are marked to market based on the day's DSP. As a result of mark-to-market, cash settlement variation which arises from a difference from the previous day's DSP or the traded price on the day is paid to or received from each Clearing Member as variation margin on the next following business day.

In addition, TFX adopts the following framework to avoid accumulation of current exposures arising from significant intraday price movements:

- For Interest Rate Futures contracts, in case of significant market price movements, TFX may call additional intraday margin under the Clearing Regulations.

- For Exchange FX Margin contracts, a Clearing Member is obligated: 1) to calculate margin requirements of both individual customers and non-individual customers (excluding "Professional Investors[14]" as defined in the FIEA) by revaluating their positions at certain time intervals (for individual investors: less than 10 minutes, for non-individual investors: less than 5 minutes), 2) to assess and judge the sufficiency of margin deposited by the respective customers relative to the minimum amount of margin required by a Clearing Member, and 3) to forcibly close out their positions when his/her margin becomes deficient to a certain extent.[15]

Key Consideration 5: In calculating margin requirements, a CCP may allow offsets or reductions in required margin across products that it clears or between products that it and another CCP clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer cross-margining, they must have appropriate safeguards and harmonized overall risk-management systems.

Margin Calculated at the Portfolio Level

For Interest Rate Futures contracts, TFX calculates margin requirements, using SPAN® systems based on portfolio of position by type of account, *i.e.,* either customer account or house account. The SPAN® calculation method allows to offset margin requirements between products as well as contract months based on correlation between price movements.

For Margin contracts, margin is not calculated on the portfolio base.

Cross-Margining with Other CCPs

TFX does not offer cross-margining arrangements with any other CCPs.

Robustness of Margin Calculation Method

TFX conducts daily back testing to validate the sufficiency of margin requirements. The test verifies that margin requirements calculated by various parameters sufficiently cover loss arising from actual market price movements.

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14 Article 2-31 and 34-3, the FIEA

15 Article 117.1(27), Cabinet Office Ordinance on financial instruments business, etc.

TFX reviews SPAN® parameters and the Margin Reference Amount used in margin calculation on a regular basis as follows respectively :

(1) Interest Rate Futures contracts (SPAN® Parameters) ： Monthly

(2) Exchange FX Margin contracts ：

- Individual customers: Weekly
- Non-individual customers: Monthly

(3) Exchange Equity Index Margin contracts: Weekly

Key Consideration 6: A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily back testing – and at least monthly, and more-frequent where appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model's coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.

Back Testing

The Clearing Operation Department conducts daily back testing for each Clearing Member to confirm that calculated margin requirements sufficiently cover loss arising from actual unsettled positions and market price movements. The result is reported to the Risk Management Office and CRO.

The Risk Management Office compiles monthly the results of back testing to validate the margin calculation method and parameter, and reports them to CRO and the Risk Management Committee.

The Risk Management Committee discusses any measures as necessary.

Key Consideration 7: A CCP should regularly review and validate its margin system.

TFX reviews and validates margin system as follows:

・The Risk Management Office monthly reports results of validation and analysis on the margin system to CRO and the Risk Management Committee.
・The Risk Management Committee reports to the Board of Directors, (i) risk management conditions and analysis result, on a quarterly basis, and (ii) result of validation for general framework of risk management, annually.
・The Board of Directors reviews the Credit Risk Management Policy at least once a year.

In addition to the above regular validation, TFX validates margin model and makes adjustment as necessary, when significant change in market or regulatory environment is observed or a new product with different characteristics from existing ones is added for clearing, etc.

Principle 7: Liquidity Risk

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

Key Consideration 1: An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.

TFX defines liquidity risk in the "Liquidity Risk Management Policy" as the risk of suffering loss which arises from the failure of settlement on the due date, by TFX's counterparties such as Clearing Members, settlement banks, custodian banks, liquidity providers, even though the counterparties may be able to fulfill their obligations at some point in time in the future.

The Clearing Operation Department measures and monitors on a daily basis the liquidity requirements, and ensures the liquid resources sufficient to cover them through stress tests. The results of the stress tests are reported to the Risk Management Office and CRO on a daily basis.

The Risk Management Office analyses on a monthly basis the status of liquidity risk management, and CRO reports the analysis made by the Risk Management Office to the Risk Management Committee.

The Risk Management Committee reports the status and the analysis of liquidity risk management to the Board of Directors on a quarterly basis.

The Board of Directors determines matters of importance with respect to the liquidity risk management framework and, at least once a year, reviews the "Liquidity Risk Management Policy."

> Key Consideration 2:
> An FMI should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.

TFX monitors daily its settlement operation as follows:

(1) Interest rate futures

TFX monitors the status of variation margin payments receivable from Clearing Members.

Each Clearing Member who is liable to pay variation margin has to credit the amount of the margin to its account with the Settlement Bank by 11:00a.m of the settlement date. In the event of a paying Clearing Member is in default, the Settlement Bank needs to inform TFX of the fact immediately. By this means, TFX checks the status of the settlement by Clearing Members.

The Settlement Bank which receives the payments from Clearing Members, has to credit the amount of the variation margin to TFX's account with BOJ by 11:30 a.m. of the settlement date. TFX monitors the status of settlement on an ongoing basis, through the BOJ-Net.

(2) Margin contracts

TFX monitors the status of Exchange Margin payments from each Clearing Member.

A paying Clearing Member has to send money to TFX's account with the Settlement Bank by the due time defined in the 'rules', such that the amount of balance exceeds the exchange margin requirements.

TFX accesses its accounts for margin settlement with the Settlement Banks and monitors the status of settlement properly.

Key Consideration 3:
A payment system or SSS, including one employing a DNS mechanism, should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or multiday settlement, of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation in extreme but plausible market conditions.

This consideration is not applicable as TFX is not an SSS.

Key Consideration 4:
A CCP should maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions.

<u>Sufficiency of Liquid Resources</u>

TFX verifies daily that it maintains liquid resources sufficiently enough to cover the liquidity requirements, which are calculated under the stress scenarios which include the largest price change based on historical scenarios in the adequate sample period and the price change based on hypothetical scenarios, where the extreme but plausible market conditions are taken into consideration.

These stress scenarios envision a chain reaction collapse involving a Clearing Member who requires the largest liquid resources (on a consolidated basis) and the Clearing Members with smaller net assets.

Furthermore, these stress scenarios are extremely conservative, as it assumes that the Clearing Members who would have the largest loss in the respective markets simultaneously go bankrupt.

<u>Characteristics of TFX's Clearing Business</u>

TFX maintains the liquid resources at adequate level, considering the following characteristics of the Clearing Business:

(1) Japanese yen is the only settlement currency. The settlements are made in Japan only through BOJ as well as the Settlement Banks in Japan.

(2) Deposited collateral securities are only Japanese Government Bonds and stocks listed in Japan.

(3)TFX does not clear any product with complicated risk profile, such as CDS.

Key Consideration 5: For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.

TFX maintains the following the qualifying liquid resources sufficiently enough to cover the liquidity requirements calculated under stressed market conditions which are extreme but plausible:

- Liquidity supply facilities contracted with the Settlement Banks

The liquidity supply facilities are set with several commercial banks designated as the

Settlement Banks and TFX can utilize the funds within the same day upon taking procedural steps provided in the applicable agreements.

-Exchange Margin and Clearing Deposit of Clearing Members deposited in cash

TFX holds the most of collateral deposited by cash in its bank accounts with the Settlement Banks, so that the funds are available within the same day.

Key Consideration 6: An FMI may supplement its qualifying liquid resources with other forms of liquid resources. If the FMI does so, then these liquid resources should be in the form of assets that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI does not have access to routine central bank credit, it should still take account of what collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances. An FMI should not assume the availability of emergency central bank credit as a part of its liquidity plan.

<u>Supplemental Liquid Resources</u>

As described in the Key Consideration 5, TFX secures qualifying liquid resources to sufficiently cover the liquidity requirements. In addition to this, TFX is able to apply its bank deposits held as the Default Compensation Reserve and a part of its surplus funds as supplement to qualifying liquid resources.

Key Consideration 7: An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.

Qualifying Liquid Resources

TFX's qualifying liquid resources consist of Exchange Margin and Clearing Deposit (held in bank account) deposited in cash by Clearing Members and liquidity supply facilities provided by the Settlement Banks.

Credibility of Liquidity Providers

TFX designates only sound commercial banks with strong financial bases as the Settlement Banks and manages its yen cash, diversifying them across several Settlement Banks.
The liquidity providers for TFX are selected from among the Settlement Banks and are all leading commercial banks, trust banks and co-operative banks in Japan. Each of these banks obtains a banking license under the Japanese Banking Act, etc. and is supervised by JFSA.

TFX clears only Japanese yen and requires each of the Settlement Banks, as eligibility requirements, to have a current account with BOJ, in order for it to access the funding from BOJ.

TFX comprehensively manages overall risks under the "Rules for Risk Management of the Settlement and Custodian Banks", timely recognizing the financial status of each Settlement Bank such as creditability, capital, liquid assets and avoiding to excessively concentrate credit and liquidity risks on a certain bank.
TFX intends to conduct a periodic drill for utilizing the Liquidity Supply Facilities.

Key Consideration 8: An FMI with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.

For Interest Rate Futures Contracts, TFX conducts daily money transfers with Settlement Banks through its current accounts held at BOJ.
TFX is also a direct member of Japan Government Bond book-entry system run by BOJ and keeps Japanese Government Bonds pledged as collateral by Clearing Members, etc. at TFX's account with BOJ.

Key Consideration 9:
An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.

Stress Test

TFX calculates the liquidity requirements and verifies the qualifying liquid recourses to satisfy the liquidity requirements through daily stress test.

The stress scenarios are based on the assumption of price changes under extreme but plausible market conditions and TFX has verified that it retains sufficient qualifying liquid resources even under the stressed market conditions.

By adding hypothetical scenarios to the stress scenarios as well as the largest historical price change, TFX prepares for the surge of price volatility in the future which is considered not to happen under the current market condition.

Review and Analysis of Models and Stress Scenarios

The result of stress test is reported daily to the Risk Management Office and CRO.
The Risk Management Office reports monthly the status of liquidity risk and the analysis of adequacy of scenarios, models, and parameters to the Risk Management Committee. The Risk Management Committee reports to the Board of Directors the status of liquidity risk

management and its analysis on a quarterly basis and the result of verifying adequacy of liquidity risk management framework on a yearly basis.

The Board of Directors makes decisions on matters of important with respect to liquidity risk management and, at least once a year, reviews the Liquidity Risk Management Policy.

Key Consideration 10:

An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.

The Clearing Regulations stipulates that TFX is able to take necessary measures such as changing the cut-off time for settlements and rescheduling the settlements in case settlement becomes in-executable or extremely difficult due to natural disasters, economic upheavals or the other compelling reasons.

However, even in the case of multiple clearing members' defaults, TFX will execute the settlements by the regular cut-off time stated in the regulations and will not consider changing it unless the settlement is in-executable or extremely difficult.

Settlement

Principle 8: Settlement Finality

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

Key Consideration 1:

An FMI's rules and procedures should clearly define the point at which settlement is final.

Point of Settlement Finality

The following are two major settlements:

- Settlements of Exchange Margin (deposit and withdrawal of collaterals); and
- Settlements of variation margin.

TFX conducts Yen cash settlements and securities settlements, and in both cases, settlements are considered to be final at the point where the transfer process between accounts has been executed at BOJ, the Settlement Banks and JASDEC.

The methods and cut off time of settlements are specified in the TFX rules and regulations[16].

Key Consideration 2: An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple-batch processing during the settlement day.

Final Settlement No Later Than the End of Value Date

TFX clearly defines the cut off time of settlements in the TFX rules and regulations[17]in order to secure the final settlements no later than the end of the value date.

TFX has never experienced an incident where the final settlement is postponed to the next business day.

Settlements are made on a real time basis during the day and TFX verifies the settlements are completed according to the process predetermined in the rules.

Key Consideration 3: An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.

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[16] "Japanese Yen Settlement Regulations", "Regulations for Regulations for Margin and Unsettled Market Derivatives Contracts", "Regulations for Margin and Unsettled Market Derivatives Contract for Exchange FX Margin Transactions", "Regulations for Margin and Unsettled Market Derivatives Contract for Exchange Equity Index Margin Transactions", etc.

[17] "Japanese Yen Settlement Regulations", "Japanese Yen Settlement Regulations for the Settlement Banks", "Regulations for Margin and Unsettled Market Derivatives Contracts", "Regulations for Margin and Unsettled Contracts for Exchange FX Margin Transactions", "Regulations for Margin and Unsettled Contracts for Exchange Equity Index Margin Transactions", etc.

The operational procedures for Clearing Members to carry out settlements are stipulated in TFX's clearing related rules[18].

Clearing Members cannot unilaterally revoke the settlement once executed.

Principle 9: Money Settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

Key Consideration 1:
An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.

TFX only uses Japanese Yen for the settlement currency, and conducts settlements between TFX and the Settlement Banks through current accounts with BOJ.

Nevertheless, as not all of Clearing Members have a current account with BOJ due to the variety of their business, settlements between TFX and a Clearing Member are conducted by transfers between TFX's account and the Clearing Member's account with the Settlement Bank selected by the Clearing Member among those designated by TFX.

Key Consideration 2:
If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.

Settlements between Clearing Members and TFX are conducted by transfers between the accounts with the Settlement Banks which satisfy the requirements set forth under the TFX rules and have sufficient financial bases and high credit enough to carry out the settlement business as a settlement bank.

TFX's accounts for settlements are the current accounts covered by the Japanese Deposit Insurance System, with little or no credit or liquidity risk.

[18] "Japanese Yen Settlement Regulations", "Regulations for Margin and Unsettled Market Derivatives Contracts", "Regulations for Margin and Unsettled Contracts for Exchange FX Margin Transactions", "Regulations for Margin and Unsettled Contracts for Exchange Equity Index Margin Transactions", etc.

Key Consideration 3:
If an FMI settles in commercial bank money, it should monitor, manage, and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, an FMI should establish and monitor adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational reliability. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.

In compliance with the "Rules for Risk Management of the Settlement and Custodian Banks," TFX recognizes their status on credit, capitals, liquid assets, etc in a timely manner and conducts comprehensive risk management with an attention not to concentrate credit risks or liquidity risks excessively in a certain Settlement Bank.

TFX stipulates in its settlement-related rules requirements for the Settlement Banks such as;

(i) being a licensed bank under the Banking Act of Japan, having a business office in Japan and having a current account with BOJ; and

(ii) having sound financial conditions, having credit and equity capital greater than a certain level as well as the capability sufficiently enough to perform stable operation as a settlement bank.

TFX continuously monitors the Settlement Banks for compliance with the above requirements and confirms periodically that the amount of settlement is not concentrated in a certain Settlement Bank.

Key Consideration 4:
If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.

TFX conducts money settlements through the accounts with BOJ or the Settlement Banks. TFX does not conduct money settlements on its own books.

Key Consideration 5:

An FMI's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement banks are expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the FMI and its participants to manage credit and liquidity risks.

TFX's settlement-related rules prescribe the cut-off time for the settlements between TFX and Clearing Members or the Settlement Banks.

Central Bank Money Settlement

For the settlement at the central bank, BOJ's "Rules on Current Deposit Account," Article 5 Paragraph 3 states that "instruction of fund transfer shall be irrevocable." As such transfers are irrevocable upon completion of the transfer process on the BOJ-Net, the settlements at BOJ become final at that time.

Commercial Banks Money Settlement

The settlements between TFX and Clearing Members are conducted in accordance with TFX's settlement-related rules. The rules stipulate the cut-off time for the settlements between TFX's account and Clearing Members' accounts. As the settlement is considered to be irrevocable when the funds are credited to the recipient's bank account, the settlements between TFX and Clearing Members become final at that time.

Principle 10: Physical Deliveries

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

This principle is not applicable as TFX does not engage in the delivery of physical instruments or commodities.

CSDs and Exchange -of-Value Settlement Systems

Principle 11: Central Securities Depositories

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risk associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilized or dematerialized form for their transfer by book entry.

This principle is not applicable as TFX is not a CSD.

Principle 12: Exchange-of-Value Settlement Systems

If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transaction), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

This principle is not applicable as TFX does not offer Exchange-of-Value Settlement.

Default Procedures

Principle 13: Participant-Default Rules and Procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Key Consideration 1: An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.

Participant-Default Rules and Procedures

The Clearing Regulations stipulate important matters regarding default procedures, such as the definition of a default, measures and procedures TFX will take when a Clearing Member defaults, the obligations of a defaulting Clearing Member and related parties including non-defaulting Clearing Members.
When a Clearing Member becomes insolvent or is so deemed by TFX, it will take such measures deemed necessary and appropriate and will declare that the Clearing Member is in default.

TFX will, according to its rules, will appropriately handle the unsettled positions of the defaulting Clearing Member by liquidating or transferring them to non-defaulting Clearing Members.

TFX will, as a general rule, maintain the regular settlement schedule to the extent possible and conduct settlements even when a Clearing Member's default occurs.

TFX has liquidity supply facilities arrangements with the Settlement Banks prepared for liquidity pressures triggered by the defaults of Clearing Members. Separately, as to the Margin contracts, TFX has secured sufficient funds in cash.
(*See*, Principle 7"Liquidity Risk" for further details)

Framework for Loss Compensations

In the Clearing Regulations, TFX has established a loss compensation framework in case there should be losses because of a Clearing Member's default. This protects non-defaulting Clearing Members from any effects of such losses and ensures continuous and stable implementation of the Clearing Business.
Losses resulting from a Clearing Member's default will be covered by the financial resources prepared for the market on which such losses have occurred, in accordance with the following priority of application of the financial resources:

(1) For Interest Rate Futures contract

Default of Clearing Member

	Contributor	Applied Financial Resources
1st Priority	Defaulting Clearing Member	Margin, Clearing Deposit, Market Entry Deposit, etc.
2nd Priority	TFX	Default Compensation Reserve
3rd Priority	Non-defaulting Members	Clearing Deposit
4th Priority	Non-defaulting Members	Additional Clearing Deposit

(2) For Exchange FX Margin Contract and Exchange Equity Index Margin Contract

Default of Clearing Member

	Contributor	Applied Financial Resources
1st Priority	Defaulting Member	Margin, Clearing Deposit, Market Entry Deposit, etc.
2nd Priority	TFX	1st Default Compensation Reserve
3rd Priority	Non-defaulting Members	1st Clearing Deposit
4th Priority	TFX, Non-defaulting Members	2nd Default Compensation Reserve, 2nd Clearing Deposit
5th Priority	Non-defaulting Members	Additional Clearing Deposit

Key Consideration 2:
An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.

TFX provides for the procedures applicable to a Clearing Member's default in its rules and operational manuals. According to this rules and manuals, TFX is to determine the suspension of the defaulting Clearing Member's trading and clearing, handle the defaulting Clearing Member's positions (by transferring them to non-defaulting Clearing Members or by liquidating them) and compensate the losses with available resources.
TFX specifies the roles and responsibilities of the departments and the commitment of the senior management to a series of these default procedures.

If a Clearing Member is in default, TFX shares information and works in close cooperation with JFSA, making a report to JFSA in accordance with the FIEA and its associated rules.
TFX also shares information with Clearing Members and the public respectively through appropriate media.

TFX intends to conduct at least once a year default management drills in which Clearing Members should participate, ensuring the effectiveness of default procedures.
TFX will provide feedback to the Clearing Members about the drills and make use of them in order to review and revise the current default procedures.

Key Consideration 3:
An FMI should publicly disclose key aspects of its default rules and procedures.

TFX stipulates its Clearing Member's default procedures in the Clearing Regulations and associated rules, and discloses them through the website. TFX also intends to prepare a default manual for Clearing Members, setting forth the default procedures, and distribute them to Clearing Members for their better understanding.

When a Clearing Member defaults, TFX will, to the extent reasonably possible, provide any related parties in the market with important information regarding specific countermeasures against the default including but not limited to, the measures taken as for the defaulting Clearing Member, the way of handling their own or their customers' positions, and the manner for compensating losses.

Key Consideration 4:
An FMI should involve its participants and other stakeholders in the testing and review of the FMI's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.

In order to ensure the effectiveness of default procedures, TFX intends to conduct at least once a year default management drills in which the Clearing Members should participate. Furthermore, TFX intends to make use of the results in order to review and revise the current default procedures.

When TFX is to revise the rules on default procedures, it discusses with Clearing Members and consults with the Market Operation Committee, which is comprised of key Clearing Members, in order to reflect their opinions.
TFX also invites opinions from the public as well as Clearing Members when it is to revise the important rules.

Principle 14: Segregation and Portability

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Key Consideration 1:
A CCP should, at a minimum, have segregation and portability arrangements that effectively protect a participant's customers' positions and related collateral from the default or insolvency of that participant. If the CCP additionally offers protection of such customer positions and collateral against the concurrent default of the participant and a fellow customer, the CCP should take steps to ensure that such protection is effective.

<u>**Segregated Management of Customer Positions and Margin**</u>

In accordance with the respective characteristics of each of its clearing products, TFX has adopted the following segregation arrangements for protecting positions and margin of customers:

For Interest Rate Futures Contracts, TFX manages customer positions and margin of each of the Clearing Members in an omnibus account, separated from the Clearing Member's proprietary account, considering varieties and diversity of customer types including institutional investors in or outside Japan. While customer positions and margin are managed by Clearing Members at their accounts segregated by the respective customers, TFX has the authority to require information from the Clearing Member, related to each such customer positions and margin when necessary[19].

As for Margin contracts, TFX manages customer positions and margin in segregated accounts considering that most of the customers are domestic individuals.

Rules on Transfer of Positions/Margin

TFX has the following arrangements for customers' positions and margin transfer in respect of its clearing products:

When a Clearing Member defaults, customers of the defaulting Clearing Member may transfer their own positions and margin to another Clearing Member (herein-after referred as "Transferee"). In such case the customers have to obtain consent from the Transferee to accept the transfer of their positions and margin by the time and date specified by TFX.
When the transfer is completed, the margins initially deposited with TFX via the defaulting Clearing Member are treated as having been deposited via the Transferee as the customers' agent. Claim for refund of customers' margin is to be made by the Transferee as the customers' agent.

Protection from Defaults of a Clearing Member and its Fellow Customer

In case that a Clearing Member defaults due to the default of its customer, TFX has the following arrangements to protect the other customers of the defaulting Clearing Member against risk arising from such default (herein-after called "Fellow Customer Risk"):

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[19] Article 6-5, Rule & Regulations for Regulations for Margin and Unsettled Market Derivatives Contracts, Article 4-2, Regulations for Margin and Unsettled Contracts for Exchange FX Margin Transactions, Article 5-5, Regulations for Margin and Unsettled Contracts for Exchange Equity Index Margin Transactions.

For Interest Rate Futures contracts, customers' positions and margin are managed in an omnibus account, and for Margin contracts, they are managed in principle in each individual account.

The TFX rules[20] and the "Agreement on Establishment of Transaction Account" require a Clearing Member as its customer's agent to deposit each customer's margin calculated on a gross basis with TFX. This means a Clearing Member is not allowed to offset one customer's positions with another's in margin calculation.

Even if a Clearing Member defaults, its customers' claim for refund of margins deposited with TFX will be executed as specified in the TFX rules[21] and the Agreement on Establishment of Transaction Account. These arrangements avoid the Fellow Customer Risk to occur.

While Clearing Members manage each of the customers' positions and margin in the individual account, TFX has the authority to order the defaulting Clearing Members to provide details of customer positions and margin. The defaulting Clearing Member which has been so ordered must promptly provide TFX with the requested information.

Legal Basis and Effectiveness

The FIEA stipulates that, in the event of commencement of insolvency procedures such as special liquidation proceedings, bankruptcy proceedings, rehabilitation proceedings and reorganisation proceedings for a defaulting Clearing Member, the Clearing Regulations shall apply, in preference to the above general insolvency procedures, to settlements of outstanding obligations between the defaulting Clearing Member and TFX[22], which confirms the validity of the Clearing Regulations in relation to the insolvency procedures of Clearing Members.

If a Clearing Member defaults, in accordance with the Clearing Regulations, the proprietary positions of the defaulting Clearing Member are to be liquidated and customers' positions of the defaulting Clearing Member are to be transferred to the other Clearing Members or liquidated.

[20] Chapter2, Regulations for Margin and Unsettled Market Derivatives Contracts, Agreement concerning Establishment of Interest Rate Futures Transactions Account, Chapter2, Regulations for Margin and Unsettled Contracts for Exchange FX Margin Transactions, Agreement concerning Establishment FX Margin Transactions Account, Chapter2, Regulations for Margin and Unsettled Contracts for Exchange Equity Index Margin Transactions, Agreement concerning Establishment of Equity Index Margin Transactions Account .

[21] Article 15, 16, 17, Agreement concerning Establishment of Interest Rate Futures Transactions Account etc. " Article 13, 14, Agreement concerning Establishment of FX Margin Transaction Account, Article 13, 14 Agreement Concerning Establishment of Equity Index Margin Transaction Account.

[22] Article 156-11-2-1,FIEA

Key Consideration 2:
A CCP should employ an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral. A CCP should maintain customer positions and collateral in individual customer accounts or in omnibus customer accounts.

Please refer to Key Consideration 1 of this Principle as for the account structure to segregate customer positions and margin from those of Clearing Members.
The customers' margin is deposited with TFX to secure the performance of obligations of the customers and to cover the possible loss arising from customers' positions.
Customer margin is protected from the Fellow Customer Risk as the Clearing Member is not allowed to apply margin of one customer to another's loss.

Key Consideration 3:
A CCP should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.

As described in the preceding Key Consideration 1 of this Principle, TFX allows the transfer of customer positions and margin in accordance with TFX's arrangement for portability of customer accounts. When the positions and margin transfer are completed, the margin initially deposited with TFX via the defaulting Clearing Member is treated as being deposited via the Transferee as the customer's agent. Claim for refund of customers' margin is to be made by the Transferee as the customer's agent.
TFX conducted a series of transfer of customer accounts without any problem during the 2008 Lehman Brothers Crisis, which demonstrates the effectiveness of TFX's arrangements.

Key Consideration 4:
A CCP should disclose its rules, policies, and procedures relating to the segregation and portability of a participant's customers' positions and related collateral. In particular, the CCP should disclose whether customer collateral is protected on an individual or omnibus basis. In addition, a CCP should disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.

Disclosure on TFX's arrangements for Segregation and Portability

The arrangements for the segregation and transfer with regard to customers positions and margin are specified in TFX clearing-related rules[23]. These rules are publicly available on TFX's website.

TFX discloses on its website that customers' margins are managed in an omnibus account for Interest Rate Futures contracts, and that those for Margin contracts are managed as a general rule in each individual account.

Disclosure on Legal or Operational Constraints

(1) Legal constraints

The FIEA stipulates that in the event of commencement of insolvency procedures such as special liquidation proceedings, bankruptcy proceedings, rehabilitation proceedings and reorganisation proceedings for a defaulting Clearing Member, the Clearing Regulations will apply, in preference to above general insolvency procedures, to the settlement of outstanding obligations between the defaulting Clearing Member and TFX. Thus, in relation to the insolvency procedures, legal admissibility of the Clearing Regulations is ensured.

If a Clearing Member defaults, in accordance with the Clearing Regulations the proprietary positions of the defaulting Clearing Member are to be liquidated, customers' positions and margin of the defaulting Clearing Member are to be transferred to the other Clearing Members or liquidated. For these reasons, TFX recognizes no legal constraints on segregation and portability of positions and margin.

(2) Operational constraints

TFX discloses operational conditions and constraints on segregation and portability of positions and margin in TFX rules and manuals for Clearing Members.

As to Margin contracts, because of certain peculiar nature of the data to be transferred, it will require a certain interval of time to process the data through its system and complete

[23] Regulations for Margins and Unsettled Market Derivatives Contracts, Regulations for Margins and Unsettled Contracts of Exchange FX Margin Transactions for clearing of FX Margin Contracts, Regulations for Margins and Unsettled Contracts for Exchange Equity Index Margin Transactions for clearing of Equity Index Margin Contracts.

the transfer. TFX describes these operational constraints in the manual addressed to Clearing Members and separately explains the same to them for a clear disclosure purpose in this respect.

Business Risk Management and Operation Risk Management

Principle 15: General Business Risk

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

Key Consideration 1:
An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.

Identification, Monitoring and Management of Business Risks

General business risks at TFX are defined as the risks of suffering losses that may arise from TFX's business strategies or business execution and operation and exclude credit risks and liquidity risks arising from Clearing Members' defaults. While general business risks could be caused by various factors, TFX manages the business risks arising from its business strategies and managerial judgment as described below.

TFX develops a medium-term management plan covering three (3) fiscal years as its business strategies and obtains an approval on it of the Board of Directors. Furthermore, TFX develops its annual business and budget plans for each fiscal year based on the medium-term management plan and obtains an approval on them from the Board of Directors.
Progress of these business plans, as well as the financial status resulting therefrom, are reported monthly to the Board of Directors. The Board of the Directors and the Board of Auditors manage and monitor the status of the business execution and the profit or loss.

The Board of Directors also determines important matters in management including new listing or delisting of products and an investment plan such as system renewal etc. through sufficient consideration of risks involved and the investment efficiency of these measures.

In addition, any business risk arising from operational risks, system risks, legal risks, reputation risks, etc. are managed properly in accordance with each risk management policy and rules.

Key Consideration 2:
An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery of orderly wind-down, as appropriate, of its critical operations and services if such action is taken.

TFX holds liquid net assets funded by equity so that it can continue operations and services as a going concern even if it incurs general business losses.
The amount of the liquid net assets funded by equity maintains at least 6 months of operating expenses.
TFX ensures that it holds sufficient equity to sustain its operations and to meet capital requirements and it reports its financial conditions to the Board of Directors monthly.

Key Consideration 3:
An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.

TFX holds liquid net assets funded by equity maintaining at least 6 months of operating expenses.
These assets are managed and held separately from financial resources held to cover the risks arising from Clearing Members' defaults.

TFX will consider developing "a recovery and wind-down plan" through discussions with regulators, Clearing Members and other related parties, based on "the international standards for FMI recovery and resolution" published by CPMI-IOSCO and Financial Stability Board in October 2014.

Key Consideration 4: Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.

TFX holds its liquid net assets to cover general business risks in Japanese Yen cash deposited at banks or in the form of Japanese Government Bonds.
These are assets of high quality and high liquidity, even in stressed market conditions. Custodian banks are chosen in accordance with the strict standards set forth in the "Rules for Funds Management". (*See*, Principle 16 "Custody and Investment Risk" for further details.)

Key Consideration 5: An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.

TFX may take the following measures if its capital decreases significantly or falls below the level required to cover 6 months of operating expenses. Currently, TFX is considering a viable plan to implement these measures:

- Thorough review of expenses;
- Review and revision of Clearing Fee;
- Thorough review of business and operations; and
- Injection of additional capital, etc.

Principle 16: Custody and Investment Risks

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Key Consideration 1:
An FMI should hold its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.

Custodian for Clearing Members' Assets

TFX manages and holds cash deposited as collateral from Clearing Members at banks in accordance with its Management Rules for the Exchange Margin.

Non-cash collateral is held at a segregated account under the name of TFX in BOJ and JASDEC, both of which are central securities depositories ("CSDs").

Custodian for TFX's Assets

TFX holds a part of its own assets, which should be held as liquid assets to cover general business risks in the form of bank deposit with the Settlement Banks in accordance with its Rules for Fund Management.

As for the rest of its own assets held for purposes other than to cover general business risks, TFX holds cash assets with bank deposits and non-cash assets in BOJ and JASDEC in accordance with the Rules for Funds Management.

TFX monitors and ensures that custodian banks satisfy standards such as the credit rating stipulated in the Rules for Funds Management.

Key Consideration 2:
An FMI should have prompt access to its assets and the assets provided by participants, when required.

Access to TFX's Own Assets

TFX holds cash of its own assets at ordinary deposits or term deposits with the Settlement Banks and can readily withdraw the cash.

TFX deposits non-cash assets of its own with BOJ and JASDEC and has an immediate access to them.

Access to Clearing Members' Assets Deposited as Collateral

While TFX holds cash collateral deposited by Clearing Members separately from its own assets at the Settlement Banks as bank deposits or money trust, it holds non-cash collateral deposited by Clearing Members in a segregated account at BOJ and JASDEC, maintaining it separately from TFX's own assets (at both organisations). In either case, TFX is able to utilize the collateral at once when necessary.

Although there is no collateral held abroad (*i.e.*, U.S. Treasury Securities) so far, TFX is equipped with the procedures necessary for the immediate access once such collateral is deposited.

Legal Basis

Japanese legal system provides for the legal basis for TFX to exercise the rights regarding assets deposited as collateral, which ensures TFX's stable access to collateral. (*See*, Principle 1"Legal Basis" for further details)

Key Consideration 3: An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.

Credit Risks and Concentration Risks

All of TFX's custodian banks are the Settlement Banks. In accordance with the "Rules for Risk Management of the Settlement and Custodian Banks," TFX recognizes their statuses on credit, capitals, liquid assets, etc. in a timely manner and conducts comprehensive risk management not to concentrate credit risks or liquidity risks excessively in particular Settlement Banks.

TFX stipulates requirements for the Settlement Banks in its settlement-related rules as follows:

(i) Being a licensed bank under the Banking Act of Japan, having a business office in Japan and having a current account with BOJ; and

(ii) Having a sound financial condition with the credit and equity capital greater than a certain level and having enough capability to perform stable operation as a Settlement Bank.

TFX monitors and ensures regularly that each bank designated as the Settlement Bank satisfies these standards and that the settlement amount is not concentrated in certain banks.

The accounts that TFX has opened for cash settlement at the Settlement Banks are current accounts, which are wholly protected by the Deposit Insurance System.

Key Consideration 4:
An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.

Investment Strategy

TFX conducts and manages the investment of its own assets under the investment plan approved by the Board of Directors, in accordance with the Rule for Funds Management.
TFX's investment status is reported to the Board of Directors monthly. The consistency with overall risk management strategy is thus confirmed.
TFX manages the Exchange Margin deposited by Clearing Members in line with the Management Rules for the Exchange Margin.

Principle 17: Operational Risk:

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

Key Consideration 1:
An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.

Identification of Operational Risk

TFX manages operational risks by dividing them into administrative risks and system risks.

Administrative risks are identified as the possibility of incurring losses due to its officers and employees failing to conduct administrative work properly, causing accidents or committing illegal acts in the course of the administrative work process, and are deemed to be caused by various factors such as information systems and internal procedures, in addition to human errors.

System risks are identified as the possibility of incurring losses to TFX and parties connected to the Exchange System, because of TFX computer system / network breakdown , malfunction, or as inadequacies or because of inappropriate or unauthorized use of TFX computer system.

TFX sets the "Administrative Risk Management Policy" and the "System Risk Management Policy", which provide the definitions of the risks, framework and methods for the risk managements, and controls the risks according to these policies.

The Frameworks of Management for Administrative Risks

TFX's framework requires that while each business department takes the responsibility for administrative risks arising from its allocated business activities, the department in charge of administrative risks oversees the respective business departments' risk management.
Each department identifies and evaluates its respective administrative risks arising from its operations and draws up the necessary risk reduction measures, and then the department in charge of the administrative risks compiles these findings and reports them to the Risk Management Office and CRO.

The director responsible for the department in charge of the administrative risks reports the status of the administrative risks to the Risk Management Committee regularly and when necessary. The Risk Management Committee reports major issues, if any, related to the administrative risks, to the Board of Directors every quarter.

The Board of Directors determines any major issues related to the administrative risk management, and further reviews the suitability of the administrative management frameworks. The "Administrative Risk Management Policy" is reviewed and updated at least once every year.

The Frameworks of Management for System Risks

The system department manages the system risks in accordance with the "System Risk Management Policy," "Security Policy," and "Security Guidelines."

In the system development process, user departments and Clearing Members also participate in the comprehensive tests in accordance with development plans.

The director in charge of TFX's system department reports the status of system risks to the Risk Management Committee regularly and when necessary.
When the system failure occurs, the emergency measures will be taken immediately to prevent the spread of damages. TFX draws up measures to prevent the recurrence through investigating the cause of the failure.

The Management of Outsourced Contractor

When outsourcing system operation, development or administrative processes, TFX selects outsourcing contractors in accordance with the Security Guidelines. In outsourcing agreements, TFX clearly specifies the role-sharing, responsibility, the power of supervision, sub-contract procedures, and manages outsourcing contractors through the periodical monitoring so that outsourcing task should be adequately performed.

The Management of "the Single Point of Failure"

In accordance with the "Security Guidelines," when developing system, TFX avoids the single point of failure by requiring/implementing more than double redundant configurations.
TFX reviews the specifications to make sure that all the requirements are included appropriately, and further tests the developed system to check if it is programmed according to the specifications. As such, TFX does not view that there exist any potential single points of failure in its systems.

BCP (Business Continuity Plan)

TFX has the frameworks for the contingency to respond appropriately and promptly and secure business continuity in accordance with the "System Risk Management Policy" and the BCP in emergency such as a large scale natural disaster.

In the BCP, TFX clearly stipulates (i) the recovery procedures for responding to the occurrence of emergency situations and (ii) the operation restoration targets. The operation restoration targets provide that critical systems for important operations should be recovered within two hours.

TFX has the following frameworks and infrastructures in preparation for a disaster:

- Secondary Data Center (herein-after called "Disaster Recovery Site (DR Site)")
- Backup Offices (first Backup Office and second Backup Office)
- Communications Structures
- Personnel Assignment
- Manuals
- Testing and Training

Framework to Secure Necessary Personnel and Personnel Compliance

TFX conducts the "Human Resource Development Program" to cultivate the employees capability. As part of this program, TFX aims to cultivate human resources capability through on-the-job trading by seconding of employees to market divisions, risk management divisions at other financial institutions.

TFX specifies the compliance codes that the officers and employees should observe as their rules of conduct and seeks to improve the personnel's compliance of applicable laws and regulations by fully disseminating the applicable rules to them.

Key Consideration 2:
An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk-management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.

Roles, Responsibilities, Frameworks

The Board of Directors has adopted the "Administrative Risk Management Policy" and the "System Risk Management Policy," which specify the risk management frameworks, including but not limited to, the roles and responsibilities, etc. for the management of operational risks. In addition, the Board of Directors makes a decision about important matters related to the operational risk management, and annually reviews the said Policies.

Assessment, Audit, and Validation

While the respective business departments manage their administrative risks, they identify their risks and evaluate the control methods and procedures, and draw up the necessary risk reduction measures once a year, the department in charge of the administrative risks complies those findings and reports them to the Risk Management Office.
The Risk Management Committee reviews the validity of both the administration risk management framework and the system risk management framework at least once a year and reports the review result to the Board of Directors. The Board of Directors then reviews the validity of operational risk management frameworks, in reference to the report received.

The Internal Auditing Office audits that the operations of each business department have been performed properly in accordance with the applicable rules and procedures. In addition to this, the system is subjected to the external audit, through which external auditors review and verify that the systems or applications thereof are developed and managed under TFX's adequate and sufficient control and governance.

Key Consideration 3:
An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.

The "System Risk Management Policy" specifies an objective to minimize losses to TFX and Clearing Members by limiting potential losses caused by the system failure and the unauthorized use of system.
To achieve the above objective, the systems are designed to have the processing capacity above their historical peak, so that TFX makes sure on a daily basis that the processing ability and capacity are adequate to respond to any unanticipated sudden increase in the processing.
Furthermore, in accordance with the "Security Guidelines," TFX manages all the exceptional events that may have occurred during the system processing, and makes necessary improvements to it accordingly.

Key Consideration 4:
An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.

TFX prepares the following measures to keep sufficient processing capacity of its systems:

- When replacing critical systems or implementing a large-scale system change, TFX secures the replaced or changed systems to withstand sufficient processing ability and capacity in light of estimates for future trading volumes during the expected system lifetime; and
- After the system goes live, TFX analyzes trends and reviews the necessity for expanding ability and capacity according to increments in the number of products and trading volumes. Adequacy of system capacity is monitored on an ongoing basis through monitoring standards set during developments. Alerts and events are generated when capacity thresholds are breached. Alerts will be sent and incident tickets are

generated when the pre-set thresholds are breached, by which issues are managed.

Key Consideration 5:
An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.

Physical Security

TFX's data center which houses TFX's clearing system satisfies all the requirements set by the Center for Financial Industry Information Systems (FISC), called, the "Security Guidelines on Computer Systems for Banking and Related Financial Institutions," which is recognized as the standard for Japanese financial market safety.

The outsourcing agreement stipulates that the data center's administrators shall comply with the Security Guidelines. TFX checks and verifies through monthly reports received from the data center's administrators that the physical security measures are undertaken pursuant to the Guidelines and any issues as for the potential vulnerabilities and threats are appropriately addressed.

Information Security

TFX sets the "Security Policy" and the "Security Guidelines". The "Security Policy" is to provide the policy for the basic actions regarding the protections and usages of the information assets which include not only the information that systems hold but also the systems themselves. The "Security Guidelines" is to set forth the requirements that certain specified measures have to satisfy.

The "Security Policy" provides for the basic terms, such as definitions and classifications of the information assets, information security management frameworks and the security guidelines of information systems.
TFX verifies that the information assets are properly managed in accordance with the "Security Policy." Also, the "Security Policy" is periodically evaluated to make it more appropriate.
The "Security Guidelines" specify as security measures the requirements for HR measures, physical measures, technical measures, as well as for the management of the outsourcing contractors.
The "Security Guidelines" have been prepared in compliance with the "Security Guidelines of

FISC" and is reviewed and revised from time to time as needs arise upon evaluation of any revisions made to the Security Guidelines of FISC.

Key Consideration 6:
An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.

The Objective of Business Continuity Plan ("BCP")

TFX sets objectives for BCP as follows:

- To pursue actions to minimize the systemic impacts to the Clearing Members and related parties by continuing its operations as much as possible when the risks of natural disasters, such as earthquakes and epidemics, and failures of social infrastructure, such as electric power and communications or an act of terrorism are actualized; and
- To quickly and efficiently recover the operations, should TFX be compelled to suspend its operations.

Designing the Business Continuity Plan

The BCP specifies the recovery procedures in the case of the risk events causing the suspension of the Exchange operations. These procedures include those for the business operations at the Backup Offices and the switch operations to the DR (Disaster Recovery) site.
It is designed that the time for the recovery of vital information systems for TFX's important operations should be less than two hours.

Other than the above, as part of the crisis management system, TFX sets the "Initial Response Rules in the Event of a Large Scale Natural Disaster" and the "Contingency Plan for System Failure and Other Emergencies (herein-after called "Contingency Plan")," and provides therein the policies for handling an emergency situation such as the occurrence of a large-scale disaster by which TFX is prevented from using its systems or other settlement-related systems.

Secondary Site

While TFX has the DR site as a secondary data centre and the two Backup Offices as a secondary business office, they are geographically separated from its main data centre and main business office, and are connected to power utility of different zones and linked through geographically diverse telecommunications infrastructure.

TFX's Backup Offices have the sufficient systems and data that are ready for its business continuity. For the risk events such as a large-scale natural disaster, TFX has established a framework that can distribute necessary personnel to operate its business continuously.

The first Backup Office is located in the area having a suitable distance from the main office for the purpose of swift switchover, and the second Backup Office is located in the same building as the DR site.

TFX has set up the necessary frameworks for restoring the systems within the targeted recovery time.

Review and Testing

BCP sets forth the BCP drills and the education and training, and the following drills are conducted annually:

- BCP drills to operate the systems at site of the Backup Offices
- drills to test that staff can reach at the Backup Offices within certain designated time limits
- emergency contact network drills by the entire personnel
- data center switching drills

TFX participates, along with the other FMIs such as BOJ, in an industry-wide BCP drill organized by the Japanese Bankers Association (herein-after called "JBA") and Tokyo Foreign Exchange Market Committee.

These drills assume a wide-area disaster and involve a broad scope of participants in the financial markets.

Through the results from these drills, TFX continually develops BCP as necessary and confirms its effectiveness.

Key Consideration 7:
An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other FMIs.

<u>Management of Risks to TFX's Operations from Major Members and Other Entities</u>

BCP and the Contingency Plan provide for the recovery procedures in the case of the risk events causing the suspension of TFX's operations.

TFX has a close relationship with Clearing Members, BOJ, the Settlement Banks, Ippan Shadan Hojin JBA Tibor Administration, infrastructures providers, such as electric power providers. The Contingency Plan provides for the respective countermeasures against failures of systems provided by these counterparties.

TFX provides the test environment to enable the Members to connect and test their backup systems. Accordingly, the Members can test the ability to restore their systems connected to TFX.

<u>Measures for Risks that TFX May Pose to Other FMI</u>

TFX has prepared the Contingency Plan through discussions with mutually dependent FMIs as to the way to deal with the TFX system failure in order to avoid impacts of such failures on those FMIs as much as possible.

When the risk is realised, TFX will minimize the impacts to the Clearing Members and organisations concerned by:

- continuing the business operations as much as possible in accordance with BCP; and
- seeking to recover them quickly and efficiently when TFX is compelled to stop them.

Principle 18: Access and Participation Requirements

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

Key Consideration 1:
An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.

TFX has established the clearing qualifications, i.e., "Interest Rate Futures Clearing Membership", "FX Margin Clearing Membership", and "Equity Index Margin Clearing Membership" (collectively, the "Clearing Membership"), each of which is required for an entity to become a counterparty to TFX's relevant Clearing Business.

Major requirements for the Clearing Membership are as follows,[24] and the requirements are rationally aligned with the nature of the relevant Clearing Business:

(i) Geographic basis; having its office or branch in Japan;
(ii) Trading membership; possessing a trading membership for the relevant product to be cleared;
(iii) Personnel; (a) being licensed as a financial instruments firm or a registered financial institution under the FIEA; and
(b) having the knowledge and capacity sufficiently enough to perform businesses as a Clearing Member; and
(iv) Financial resources; satisfying certain financial requirements, such as net assets, etc.

JFSA has approved the Business Rules that stipulate the requirements for the clearing qualifications. TFX further discloses on TFX's website the participation criteria.

Upon receipt of an application for a Clearing Membership, TFX shall examine an applicant according to the qualification criteria[25] for each type of Clearing Membership.
In the examination process, TFX pays special attention not to treat the applicant in a

[24] Article 5, Clearing Regulations
[25] Article 4-2, Clearing Regulations

discriminatory manner[26].

TFX has established no qualification limitations on the attributes of indirect customers such as the Clearing Members' customers.

Key Consideration 2:
An FMI's participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks, and publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavor to set requirements that have the least restrictive impact on access that circumstances permit.

Legality and Reasonability of Criteria of Membership

TFX has established reasonable qualification requirements for the acquisition of Clearing Membership for each of TFX's Clearing Business, which is aligned with the risks and nature of the relevant Clearing Business.

TFX ensures, in principle, to provide an equal access to all Members of the same Clearing Membership. Entities eligible to be TFX's Clearing Member include banks and financial instrument trading brokers (securities companies) etc., and TFX has established eligibility criteria based on indicators of financial soundness, depending on the differences in the applicable industry.

For an applicant whose net asset amount is less than TFX's required level, TFX allows such applicant to access the Clearing Business on the condition that it obtains a guarantee from its parent company.

Under Equity Index Margin Clearing Membership, there are two types of Clearing Members; i.e., a Clearing Member entitled to brokerage for clearing with TFX of non-Clearing Members' contracts ("Clearing Member with Clearing Brokerage Power"), and a Clearing Member not entitled to such clearing brokerage ("Clearing Member without Clearing Brokerage Power"). The membership criteria for the Clearing Member with Clearing Brokerage Power are stricter than those for the Clearing Member without Clearing Brokerage Power.

[26] Article156-9, FIEA

Amendment to and Disclosure of the Membership Criteria

The Membership criteria are amended as needed according to changes in the regulatory environment surrounding financial markets, and the revision to the relevant laws. The membership criteria are publicly available on TFX's website, and can be accessed by all current and potential Clearing Members.

Key Consideration 3: An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.

Monitoring Clearing Members' Compliance with Qualification Criteria

TFX continuously monitors Clearing Members for their compliance with the qualification criteria for the Clearing Members, as described below.

Clearing Members are obliged to report their compliance with the qualification criteria for the Clearing Members to TFX periodically and in a timely manner.[27]
In particular, from a viewpoint of financial soundness, Clearing Members are required to report their financial conditions to TFX annually, and TFX continuously monitors the soundness of Clearing Members. Before taking any actions, such as amendment to the articles of incorporation, merger, succession of the business, acts which have an impact on the Member's management and business structure, the Clearing Members are required to notify TFX of the details thereof.
Additionally, in accordance with TFX's Inspection Regulations, TFX inspects Clearing Members' business conditions and operations.
Based on the above measures, TFX makes a continual follow-up by requiring a Clearing Member to submit additional reports or documents[28], as necessary,

Suspension and Orderly Exit of a (Clearing) Members

If TFX determines that a Clearing Member's conditions of business or assets are inappropriate

[27] Chapter2 Section4-2, Clearing Regulations
[28] Article 14 -6, Clearing Regulations

in light of the operation of the relevant market, TFX may recommend the Clearing Member to take appropriate actions, and may request a report from the Clearing Member for the actions it took[29].

When TFX determines that a Clearing Member does not satisfy qualification criteria for the Clearing Member or has violated the TFX rules, TFX will take disciplinary measures against the Clearing Member, according to the method which is prescribed in the Clearing Regulations[30].
These measures include the suspension from access to all or part of TFX's Clearing Business and revocation of the clearing qualification for the relevant Clearing Membership.
As a Clearing Member must as well be a Trading Member under the qualification criteria, disciplinary measures against a Trading Member will be determined by the Self-Regulatory Committee following the consultation to the Disciplinary Committee.

The Discipline Committee is composed of a number of experts and professionals, such as lawyers, who work autonomously from TFX and Clearing Members.

A Member whose Clearing Membership has been deregistered shall perform all outstanding obligations owed to the other Clearing Members, non-Clearing Members and TFX, by appropriating money, securities or other equivalents deposited at TFX, in accordance with the TFX rules[31]. By these rules, TFX ensures the Clearing Member's orderly exit from its market.

When TFX has imposed any disciplinary measure on a Clearing Member including the suspension of, or restriction on the access to TFX's Clearing Business and/or revocation of the relevant Clearing Membership, TFX notifies such effect to all the other Clearing Members and Non-Clearing Members, and releases the notice on TFX's website.[32]
When a Clearing Member's Clearing Membership is deregistered, TFX gives a public notice on such deregistration and notifies it to all the other Clearing Members and Non-Clearing Members[33].

[29] Article15-8, Clearing Regulations
[30] Chapter2 Section5, Clearing Regulations
[31] Article14-2, Clearing Regulations
[32] Article15-11, Clearing Regulations
[33] Article14, Clearing Regulations

Principle 19: Tiered Participation Requirements

An FMI should be reviewed in the context of Principle 14 on segregation and portability, Principle 18 on access and participation requirements, and other principles, as appropriate.

Key Consideration 1:
An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.

(1) Tiered Participants of TFX

A Clearing Member is a direct participant with Clearing Membership who can act as a direct counterparty to TFX performing its Clearing Business, and who requires to be a financial instruments firm or a registered financial institution under FIEA.

TFX's indirect participants are classified as follows:

- Customer of Clearing Member that opens an account with the Clearing Member;
- Non-Clearing Member that is entitled to trading qualification but not to clearing qualification; and
- Customer of Non-Clearing Member that opens an account with the Non-Clearing Members.

The business category of indirect participants may vary, and includes brokers, banks, asset management companies (investment management business operators, investment advisory and agency operators), hedge funds, market makers, and individuals.

(2) Gathering Information on Indirect Participants

TFX has the right to request a Clearing Member to submit documents concerning information on each customer's positions and margin, as TFX deems necessary.[34] The Clearing Member is obliged to submit promptly such documents to TFX, whenever TFX requests.

TFX further obliges a Non-Clearing Member to periodically report its financial conditions to

[34] Article 6-5, Regulations for Margin and Unsettled Market Derivatives Contracts, Article 4-2 Regulations for Margin and Unsettled Contracts for Exchange FX Margin Transactions, and Article 5-5Regulations for Margin and Unsettled Contracts for Exchange Equity Index Margin Transactions.

TFX.[35] In any other case where TFX determines as necessary for TFX's operational reasons, TFX has the right to request a Non-Clearing Member to submit a report or documents concerning the Member's business or financial conditions.[36]

See, Key Consideration 3 and 4 of this Principle as for the risks to TFX arising from tiered participation arrangements.

Key Consideration 2: An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.

A Clearing Member is a direct counterparty to TFX performing its Clearing Business. By monitoring and assessing the Clearing Member's proprietary/customer positions, TFX is able to identify noted dependencies between the Clearing Member and its indirect participants.

TFX is also able to assess Non-Clearing Members' position status relative to the related Clearing Member's financial soundness, and confirm whether there is any impact for the Clearing Member if the related Non-Clearing Member defaults or bankruptcies occur, by receiving periodical reports on financial conditions from the Clearing Member and Non-Clearing Members respectively.

In particular, for Margin contracts, TFX is able to easily identify noted dependencies between a Clearing Member and its indirect participants, as TFX adopts the account structure in which TFX can monitor position/margin by each of the individual indirect participants' accounts.[37].

Key Consideration 3: An FMI should identify Indirect Participants responsible for a significant proportion of transactions processed by the FMI and Indirect Participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the FMI in order to manage the risks arising from these transactions.

[35] Article 57, Trading Member Regulations.
[36] Article 58, Trading Member Regulations.
[37] See Principle 14 for details on Segregation and Portability

Monitoring of Members for Compliance with Qualification Requirements

Since a Clearing Member is the direct counterparty to TFX performing the Clearing Business, the Clearing Member is responsible for meeting its obligations to TFX, even when indirect participants of the Clearing Member have not performed their obligations to the Clearing Member.

If a Clearing Member has excessively large positions (including positions of indirect participants) in light of the Clearing Member's financial conditions, the risk to TFX that the Clearing Member would fail to fulfill its obligations will increase. In order to manage such risk, TFX is able to request the Clearing Member or the Trading Member under the TFX rules to submit additional information concerning their indirect participants, as TFX deems necessary.

TFX plans to develop appropriate measures to monitor on a daily basis the positions outstanding of each of the Clearing Members in comparison to each Member's financial conditions.

Key Consideration 4: An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.

When TFX recognizes that a Clearing Member has an excessive risk concerning its unsettled position in comparison with its net assets, or that TFX deems necessary in light of risk management, TFX requests the Clearing Member to submit a report on relevant information including the causes of such risk. TFX plans to develop appropriate measures to mitigate risk, including such measures as additional requirements for collateral deposit, if necessary.

Principle 20: FMI Links

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

Key Consideration 1:
Before entering into a link arrangement and on an ongoing basis once the link is established, an FMI should identify, monitor, and manage all potential sources of risk arising from the link arrangement. Link arrangements should be designed such that each FMI is able to observe the other principles in this report.

TFX conducts an assessment of potential risks prior to establishing a proposed link arrangement, including those related to trading and clearing. In this assessment, TFX makes an analysis of the potential risks relating to legal, credit, liquidity, regulation and operation that may have an impact on TFX.

TFX currently has FMI links with the following entities:

1. BOJ: Fund settlement bank for money settlement and custodian of collateral in form of Japanese Government Bond.
2. JASDEC: Custodian of collateral in form of listed stocks, cooperate bonds etc.
3. Euroclear : Custodian of collateral in form of US Treasury Securities for the Clearing Business of Interest Rate Futures contracts.
   However, at present, no US Treasury securities are deposited.
4. LIFFE Administration and Management:
   Trading and clearing link arrangement with LIFFE on Three-Month Euroyen Futures contracts.
   However, the said Link has been suspended and will be canceled in the future.

TFX has only two FMI Links in operation, one with BOJ and the other with JASDEC, and considers that these link arrangements do not and will not become an obstacle for TFX's adherence to the FMI principles.

Key Consideration 2:
A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the FMIs involved in the link.

All existing links are implemented between TFX and Japanese FMIs under Japanese law, except for Euroclear. Euroclear is a custodian based on the laws of Belgium, and is confirmed to have a well-founded legal basis providing appropriate protection to FMIs. However, at present, no US Treasury securities are deposited with Euroclear.

Key Consideration 3:
Linked CSDs should measure, monitor, and manage the credit and liquidity risks arising from each other. Any credit extensions between CSDs should be covered fully with high quality collateral and be subject to limits.

This consideration is not applicable as TFX is not a CSD.

Key Consideration 4:
Provisional transfers of securities between linked CSDs should be prohibited or, at a minimum, the retransfer of provisionally transferred securities should be prohibited prior to the transfer becoming final.

This consideration is not applicable as TFX is not a CSD.

Key Consideration 5:
An investor CSD should only establish a link with an issuer CSD if the arrangement provides a high level of protection for the rights of the investor CSD's participants.

This consideration is not applicable as TFX is not a CSD.

Key Consideration 6:
An investor CSD that uses an intermediary to operate a link with an issuer CSD should measure, monitor, and manage the additional risks (including custody, credit, legal, and operational risks) arising from the use of the intermediary.

This consideration is not applicable as TFX is not a CSD.

Key Consideration 7:
Before entering into a link with another CCP, a CCP should identify and manage the potential spill-over effects from the default of the linked CCP. If a link has three or more CCPs, each CCP should identify, assess, and manage the risk of the collective link arrangement.

While TFX has entered into the Link arrangement for the Three-month Euroyen Futures contracts with LIFFE administration and Management, the Link under the arrangement has been suspended since July 2013. Currently, TFX does not have a valid linkage with any other CCPs.

Key Consideration 8:
Each CCP in a CCP link arrangement should be able to cover, at least on a daily basis, its current and potential future exposures to the linked CCP and its participants, if any, fully with a high degree of confidence without reducing the CCP's ability to fulfil its obligations to its own participants at any time.

While TFX has entered into the Link arrangement for the Three-month Euroyen Futures contracts with LIFFE Administration and Management, the Link under the arrangement has been suspended since July 2013. Therefore, currently, TFX does not have current and potential exposures to the linked CCP or its participants.

Key Consideration 9:
A TR should carefully assess the additional operational risks related to its links to ensure the scalability and reliability of IT and related resources.

This consideration is not applicable as TFX is not a TR.

Efficiency

Principle 21: Efficiency and Effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Key Consideration 1:
An FMI should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products clearing, settled, order recorded; and use of technology and procedures.

When taking any actions such as changing its Clearing and Settlement Rules, its operation structure, products to be cleared, or its systems, TFX designs such actions taking into account needs of its Clearing Members and markets.

In order to reflect the opinions of Members, TFX has set up the Market Operation Committee as an advisory panel to the Board of Directors.

The Market Operation Committee, which is comprised of major Clearing Members of TFX and academic experts, may express an opinion to the Board of Directors with regard to any important decisions made for the operation of the TFX market.

Furthermore, through interaction with its Clearing Members and market participants, and seeking an opinion from the public (public comments) etc., TFX reflects needs of Clearing Members and markets and intends to keep all the related parties informed about actions taken by TFX.

TFX requests public comments through its website and accepts various opinions from the public, including but not limited to, those from its Clearing Members and their clients/customers.

Key Consideration 2:
An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum services levels, risk-management expectations, and business priorities.

TFX's mission as a comprehensive exchange for financial derivatives is to contribute to the growth of Japanese economy through sound development of the financial market.

Aiming to accomplish this mission, TFX has set the goals/objectives to; "expand and improve the convenience of listed products to meet needs of the markets," "expand the investor base," and "enhance the fairness and reliability of the markets," as its key business strategies under TFX's mid-term management plan, while it formulates not only a measureable but also an achievable annual business plan for each fiscal year. TFX conducts various measures and carries out its operations in accordance with these plans.

Key Consideration 3:

An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.

TFX develops its business strategies based on the mid-term management plan and annual business plan, and, through the realization of various measures, seeks to improve its efficiency and effectiveness when meeting needs of its Members and markets.

TFX monthly reports the progress of such measures and their assessments to the Board of Directors.

Principle 22: Communications Procedures and Standards

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

Key Consideration 1:

An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.

TFX uses the widely accepted communications procedures and standards for the communication with the Clearing Members, the Settlement Banks, and the other FMIs.

Procedures/Standards for Communication with Clearing Members

For Interest Rate Futures contracts, TCP/IP is used as a communication protocol, and the data is exchanged with XML data format.

For Margin contracts, the TCP/IP is used as a communication protocol, and the data is exchanged with FIX standards or FTP data format.

Procedures/Standards for Communication with the Settlement Banks

For Interest Rate Futures contracts, TFX uses the BOJ-NET for its Japanese yen settlement at BOJ.

For Margin contracts, TFX uses the firm banking systems that commercial banks offer for its Japanese yen settlement at commercial banks.

Procedures/Standards for Communication with the other FMIs

For the settlement of JGBs, TFX conducts operational procedures via the BOJ-NET terminals, provided by BOJ.
TFX conducts the settlement of stocks via the JASDEC's network system.

Transparency

Principle 23: Disclosure of Rules, Key Procedures, and Market Data

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be public disclosed.

Key Consideration 1:
An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.

TFX Rules

TFX clearly prescribes comprehensive rules and procedures regarding the Clearing Business in its Clearing Regulations and associated rules, and discloses them on its website in Japanese and English. These rules provide details of qualification criteria and obligations for Clearing Membership, rights and obligations related to clearing and settlement between TFX and Clearing Members, settlement procedures and the financial resources framework such as Margin and Clearing Deposit.

Revision of TFX Rules

TFX revises its rules, after hearing opinions from the relevant Clearing Members, and, where appropriate, in consultation with the Market Operation Committee and soliciting public comments.

While TFX obtains an approval from JFSA before revising its key rules, it provides a notice to JFSA when revising other minor rules.

TFX notifies each Clearing Member of the revisions and discloses them on the website dedicated only to the Clearing Members at the same time. In case of revising key rules or changing listed contracts, TFX holds an explanatory meeting with Clearing Members or explains to each Clearing Member individually.

General Information on TFX's Website

TFX's website is publicly accessible and provides the following information:

- TFX's corporate outline, history and financial information;
- Outline of clearing framework and Clearing Member framework, and clearing-related data;
- Market information and trading-related data; and
- Rules and Regulations, etc.

Key Consideration 2: An FMI should disclose clear descriptions of the system's design and operations, as well as the FMI's and participant's rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.

Details of TFX's clearing framework, rights and obligations between TFX and Clearing Members are clearly stipulated in its Clearing Regulations and associated rules, and they are disclosed publicly.

TFX provides Clearing Members with the following information that may be necessary for them to identify and assess any risks or costs involved for their use of TFX's Clearing Business:

- Information about methods and terms of clearing;
- Information about collateral, *e.g.*,;
  - -Obligations for Margin, Market Entry Deposit, and Clearing Deposit, acceptable collateral, haircuts for collateral; and
- Information about procedures for the default of a Clearing Member, *e.g.*;
  - -Waterfall of Financial Resources for Loss Compensation (Margin, Market Entry Deposit, Clearing Deposit and Default Compensation Reserve), methods for dealing with the positions of the defaulting Clearing Member.

Key Consideration 3:
An FMI should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.

When a company intends to obtain Clearing Membership, TFX holds an explanatory meeting individually and provides information about the outline of clearing framework, the procedure of obtaining Membership, system requirements, etc.

In respect of existing Members, TFX makes inspections to ensure that the Members operate their businesses in accordance with the TFX rules and procedures.
When TFX recognizes that a Clearing Member does not fully comprehend the TFX rules, procedures or the risks it would incur by participating in the Clearing Business or there is any failure or insufficiency in the Clearing Member's operational structure relating to the participation in the execution of Clearing Business, TFX makes such Member to correct the situation, issuing an improvement or corrective order to the relevant Member.

Key Consideration 4:
An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.

TFX discloses the rule stipulating its fee structures on its website and anyone can access it easily. TFX discloses its trading fees, which include clearing fees.

In case of making a significant change in its services and fees, where appropriate, TFX resolves the change after consulting the Market Operation Committee and soliciting public comments. TFX informs each Clearing Member of the change and disclose it publicly on its website.

Key Consideration 5: An FMI should complete regularly and disclose publicly responses to the CPSS-IOSCO disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.

This is TFX's first disclosure document published pursuant to the CPSS-IOSCO "Disclosure Framework for Financial Market Infrastructures." TFX will update this document if there are significant changes, and at least once every two years.

<u>Disclosure of Data</u>

TFX discloses the following statistical data of clearing contracts on its website, and also publishes monthly and annual statistics by aggregating the daily data:

- Cleared volume (traded volume) and open interest;
- Final settlement volume and final settlement price; and
- Daily settlement price

Principle 24: Disclosure of Market Data by Trade Repositions

A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

This principle is not applicable as TFX is not a TR.

V. List of Publicly Available Information

＜TFX Information＞

TFX Rules and Regulations

http://www.tfx.co.jp/en/rules/index.shtml

TFX Financial Information and Annual Report

http://www.tfx.co.jp/en/about_tfx/ir.shtml

TFX Corporate Outline

http://www.tfx.co.jp/en/about_tfx/org.shtml

TFX Clearing

http://www.tfx.co.jp/en/trading/clearing1.shtml

TFX Clearing Membership

http://www.tfx.co.jp/en/trading/clearing2.shtml

TFX Market Information (Statistics)

Daily Statistics Report (Interest Rate Futures Contracts)

http://www.tfx.co.jp/cgi-bin/statistics_e.cgi

Daily Statistics Report (Exchange FX Margin Contracts)

http://www.tfx.co.jp/cgi-bin/statistics_forex_e.cgi

Daily Statistics Report (Exchange Equity Index Margin Contracts)

http://www.tfx.co.jp/cgi-bin/statistics_cfd_e.cgi

Monthly / Annual Statistics Report (All Products)

http://www.tfx.co.jp/en/mkinfo/report.shtml

＜ **Related Laws and Regulations**＞

Financial Instruments and Exchange Act
http://www.fsa.go.jp/common/law/fie01.pdf

Cabinet Office Ordinance on Financial Instruments Clearing Organization, etc.
http://www.japaneselawtranslation.go.jp/law/detail/?id=2379&vm=04&re=02

Principles for Financial Market Infrastructures (PFMI)
http://www.bis.org/cpmi/publ/d101a.pdf

Disclosure Framework and Assessment Methodology
http://www.iosco.org/library/pubdocs/pdf/IOSCOPD396.pdf

Implementation monitoring of the PFMI: Level 2 assessment report for central counterparties and trade repositories
http://www.bis.org/cpmi/publ/d127.html

European Market Infrastructure Regulation (EMIR)
http://eur-lex.europa.eu/legal-content/EN/ALL/;ELX_SESSIONID=9hKlTthNJ5HW5KnGDSp
bvrKNyRWRtyFKpwkTXvKHKG3LvCSFxph3!688603561?uri=CELEX:32012R0648

Comprehensive Guidelines for Supervision of Financial Market Infrastructures- Clearing Organizations, Fund Clearing Organizations, Book-entry Transfer Institutions, and Trade Repositories
http://www.fsa.go.jp/en/news/2014/20140327-1/01.pdf

Civil Code
http://www.moj.go.jp/content/000056024.pdf

Companies Act
http://www.japaneselawtranslation.go.jp/law/detail/?id=2035&vm=&re=

Act on Recognition of and Assistance for Foreign Insolvency Proceedings

http://www.japaneselawtranslation.go.jp/law/detail_main?re=&vm=&id=1935

Banking Act

http://www.fsa.go.jp/common/law/bank01.pdf

＜Regulatory Authorities and Organizations＞

(The) Financial Services Agency of Japan

http://www.fsa.go.jp/en/index.html

(The) Bank of Japan

http://www.boj.or.jp/en/index.htm/

The Bank of Japan Act

http://www.japaneselawtranslation.go.jp/law/detail/?id=92&vm=2&re=

The Bank of Japan Policy on Oversight of Financial Market Infrastructures

https://www.boj.or.jp/en/announcements/release_2013/data/rel130312a.pdf

Rules on Current Deposit Account (Japanese only)

https://www.boj.or.jp/paym/torihiki/touyo08.htm/

Japan Securities Depository Center, Inc.

https://www.jasdec.com/en/

The Financial Futures Association of Japan

http://www.ffaj.or.jp/en/index.html

The Centre for Financial Industry Information System (FISC)

https://www.fisc.or.jp/english/

VI. Glossary

BCP	Business Continuity Plan
CCP	Central Counterparty
CPSS	The Committee on Payment and Settlement Systems
CPMI	The Committee on Payment and Market Infrastructure
CRO	Chief Risk Officer
CSD	Central Securities Depositary
DFAM	Disclosure Framework and Assessment Methodology
DSP	Daily Settlement Price
DVP	Delivery Versus Payment
EMIR	European Market Infrastructure Regulation
ESMA	European Securities and Market Authority
FIEA	Financial Instruments and Exchange Act
FISC	The Center for Financial Industry Information Systems
FMI	Financial Markets Infrastructure
IOSCO	The International Organization of Securities Commissions
JASDEC	Japan Securities Depository Center, Inc.
JBA	Japanese Bankers Association
JFSA	Financial Services Agency of Japan
JFSA Guidelines	Comprehensive Guidelines for Supervision of Financial Market Infrastructures - Clearing Organizations, Fund Clearing Organizations, Book-entry Transfer Institutions, and Trade Repositories -
LIBOR	London Interbank Offered Rate
PFMI	Principles for Financial Market Infrastructure
SSS	Securities Settlement System
TCCCP	Third Country CCP
TFX	Tokyo Financial Exchange Inc.
TR	Trade Repository

Tokyo Financial Exchange Inc.