



HONG KONG MONETARY AUTHORITY
香港金融管理局

OVERSIGHT FRAMEWORK FOR THE HONG KONG TRADE REPOSITORY

A Guideline issued by the Monetary Authority

Purpose

To explain the general requirements of the Monetary Authority in overseeing the Hong Kong Trade Repository.

Classification

A guideline issued by the Monetary Authority required to be complied with by the Hong Kong Trade Repository.

Previous guidelines superseded

This supersedes the version dated 20 May 2016.

Application

To the Hong Kong Trade Repository.

Date: 13 July 2016

The page is intentionally left blank.

Contents

A. INTRODUCTION	1
1. Purpose	1
2. Background.....	1
3. Roles of Different Departments within the HKMA	2
B. POLICY FRAMEWORK.....	4
4. General Policy	4
5. International Standards	4
C. OVERSIGHT REQUIREMENTS.....	6
6. Introduction	6
7. Legal, Governance Framework and Risk Management Framework	7
8. Safety Requirements.....	12
9. Efficiency and Effectiveness Requirements	20
10. System Links with other Financial Market Infrastructures	25
11. Disclosure of Rules, Key Procedures and Market Data	27
12. Disclosure of Market Data by the HKTR.....	28
D. OVERSIGHT APPROACH	29
13. Introduction	29
14. Off-site Reviews and Continuous Monitoring.....	30
15. On-site Examinations	31
16. Auditor's Reports.....	32
17. Meeting with the Management of the HKTR.....	32
18. Co-operation with other authorities.....	33
19. Follow-up Actions	33
E. OTHERS.....	33
20. Miscellaneous	34
Annex.....	35
CPMI-IOSCO Principles for Financial Market Infrastructures: Principles applicable to Trade Repositories	35

A. INTRODUCTION

1. Purpose

- 1.1 This document sets out the requirements for overseeing the over-the-counter (“OTC”) derivatives trade repository established by the Monetary Authority (“MA”)¹ in Hong Kong within the MA’s organisation, the Hong Kong Monetary Authority (“HKMA”).

2. Background

- 2.1 The global financial crisis in 2008 triggered a global movement to improve transparency and reduce counterparty risks in the OTC derivatives markets, resulting in reforms to the OTC derivatives markets on various fronts. The reform measures adopted by the international regulatory community include requiring all OTC derivatives transactions to be reported to trade repositories.
- 2.2 A trade repository (“TR”) is a centralised registry that maintains an electronic database of records of OTC derivatives transactions. By collecting and providing OTC derivatives transaction information to regulatory authorities, TRs play a vital role in supporting authorities to carry out their market surveillance responsibilities, which will help maintain financial stability. TRs also help improve market transparency, promote standardisation and ensure availability and quality of transaction data.

¹ The office of the MA is known as the Hong Kong Monetary Authority (HKMA), and the MA is the Chief Executive of the HKMA. The MA is appointed under the Exchange Fund Ordinance to assist the Financial Secretary in performing his functions under the Exchange Fund Ordinance and to perform such other functions as are assigned by other Ordinances or by the Financial Secretary.

- 2.3 In response to the G20’s commitment to improve the transparency and regulatory oversight of OTC derivatives markets, the MA, the Securities and Futures Commission (“SFC”) and other stakeholders in Hong Kong have established a regulatory regime for OTC derivatives markets under the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) (“SFO”), including a reporting obligation for prescribed persons² to report OTC derivatives transactions to which section 101B(2) of the SFO applies to a TR established by the HKMA, namely the HKTR.
- 2.4 The HKTR plays an important role in maintaining financial stability. The safety and efficiency of the HKTR will enable its users to report OTC derivatives transactions to which section 101B(2) of the SFO applies in a timely and convenient manner in accordance with the reporting rules³. The OTC derivatives transaction data available from the HKTR will also help enhance market transparency and improve market surveillance.
- 2.5 The oversight requirements and arrangements for the HKTR set out in this Guideline may be fine-tuned and revised from time to time in the light of the developments in international OTC derivatives markets and experience to be gained in this regard.
- 2.6 Unless otherwise specified, the terms used in this Guideline follow those used in the *Principles for Financial Market Infrastructures* (see paragraph 5.1 for details).

3. Roles of Different Departments within the HKMA

- 3.1 To ensure effective operation and oversight of the HKTR, two different

² As defined in section 101A of the SFO.

³ As defined in section 101A of the SFO.

departments of the HKMA undertake the operational and oversight roles respectively. The Trade Repository team of the Financial Infrastructure Department (“TR team”) is responsible for the development and operation of the HKTR. The Financial Market Infrastructure Oversight team of the Banking Conduct Department (“FMIO team”) is responsible for the oversight of the HKTR. In order to avoid any potential or actual conflicts of interest, there are effective “Chinese wall” arrangements between the TR and FMIO teams. In particular, the two teams belong to two different departments of the HKMA and have separate reporting lines to different senior executives of the HKMA.

- 3.2 The FMIO team applies the same procedures and standards, where relevant, in overseeing the HKTR as it does in overseeing other FMIs, whether operated by the HKMA or other parties. All information obtained by the FMIO team arising from its oversight of the HKTR is kept strictly confidential and solely used for oversight purposes.

- 3.3 The oversight by the FMIO team focuses on the core function of the HKTR (i.e., the reporting service which was launched in July 2013). Ancillary functions performed by the HKTR (e.g., matching and confirmation services) will be subject to oversight by the FMIO team to the extent that performance of the ancillary functions may affect performance of the core function. Under the current system design of the HKTR, the reporting service under the core function and the other services under the ancillary functions are offered separately and trade data submitted to the HKTR for one purpose cannot be used for the other purpose.

B. POLICY FRAMEWORK

4. General Policy

- 4.1 One of the functions of the MA is to maintain the stability and integrity of the monetary and financial systems of Hong Kong, including the maintenance and development of Hong Kong's financial infrastructure such as the HKTR. Therefore, the MA shall ensure that the HKTR is operated in a safe and efficient manner.

5. International Standards

Principles for Financial Market Infrastructures

- 5.1 The Committee on Payments and Market Infrastructures of the Bank for International Settlements ("CPMI") and the International Organization of Securities Commissions ("IOSCO") published a joint report "*Principles for Financial Market Infrastructures*" ("PFMI") in April 2012. The PFMI update, harmonise and strengthen the risk management and related standards applicable to financial market infrastructures ("FMIs") which include systemically important payment systems, central securities depositories, securities settlement systems, central counterparties and trade repositories. The PFMI principles applicable to a TR are set out in the Annex.
- 5.2 Paragraph 1.23 of the PFMI states that, in general, the PFMI are applicable to FMIs that operated by central banks and those operated by the private sector, but recognises that there are exceptional cases where the PFMI are applied differently to central bank-operated FMIs due to requirements in relevant law, regulation or policy. The CPMI and IOSCO issued a short note "*Application of Principles for financial*

market infrastructures to central bank FMIs”⁴ in August 2015 to elaborate this point. The note provides guidance on how the PFMI apply to FMIs that are owned and operated by central banks, and further clarifies the interaction between the PFMI and central bank policies.

5.3 The HKMA has committed to comply with the international regulatory standards on overseeing FMIs, including TRs. On 28 March 2013, the HKMA announced its policy intention to adopt the PFMI, and the PFMI (including the twenty-four principles and the five responsibilities) came into effect on the same day.

5.4 The HKMA applies the same PFMI requirements to the FMIs (including the HKTR) under its purview. However, as noted in paragraph 5.2, there are exceptional cases where certain PFMI principles are applied differently to the FMIs owned and operated by the HKMA due to requirements in relevant law, regulation, or policy. The HKTR is one of the FMIs owned and operated by the HKMA. The exceptional cases relevant to the HKTR where the PFMI principles may be applied differently are:

- i) since the HKTR is operated as an internal function of the HKMA, the requirements in paragraphs 7.3.3 and 7.3.4 on governance are not intended to constrain the composition of the HKMA’s governing body or that body’s roles and responsibilities.
- ii) since the HKMA owns and operates the HKTR as one of the services which the HKMA has undertaken to provide, the HKMA’s ability to ensure continuity of operations of the HKTR

⁴ The note is available on the BIS website: <http://www.bis.org/cpmi/publ/d130.pdf>

as necessary in extreme financial circumstances means that the requirements to prepare recovery and orderly wind-down plans do not apply; however, if the HKMA were to decide to terminate the service, it should seek to do so in a transparent and orderly manner. In addition, since intervention by a resolution authority is not relevant, requirements in paragraph 7.4.5 to support resolution planning or intervention by a resolution authority in the operation or ownership of the HKTR do not apply.

- iii) the requirement in paragraphs 8.1.3 to 8.1.5 to hold ring-fenced liquid net assets funded by equity to cover business risk and support a recovery or wind-down plan does not apply to the HKTR since it is owned and operated by the HKMA and given the HKMA's inherent financial soundness. Similarly, the requirement in paragraph 8.1.6 to maintain a plan to raise additional equity does not apply.
- iv) regardless of the form of any involvement of the HKMA in FMIs, nothing in this Guideline is intended to constrain the HKMA's policies on to whom it is prepared to offer accounts and on what terms (cf paragraphs 9.5.1 to 9.5.3) or its choices on implementation of monetary policy.

C. OVERSIGHT REQUIREMENTS

6. Introduction

6.1 In line with the policy objectives of the CPMI and IOSCO, the policy

objectives for Hong Kong's FMIs, including TRs, are to enhance safety and efficiency in payment, clearing, settlement and recording arrangements, and more broadly, to limit systemic risk and foster transparency and stability of the financial system. The primary public policy benefits provided by a TR, which stem from the centralisation and quality of the data that a TR maintains, are improved market transparency and provision of data to relevant authorities and the public according to their respective information needs. Timely and reliable access to the data stored in a TR could potentially improve significantly the ability of relevant authorities and the public to identify and evaluate the potential risks posed to the broader financial system.

- 6.2 Apart from the safety and efficiency requirements, one of the primary focuses of the oversight of the HKTR is whether the HKTR is able to provide data in line with the regulatory and industry expectations to relevant authorities and the public, and whether the data is provided in a timely manner and in a format that permits the data to be easily analysed.

7. Legal, Governance Framework and Risk Management Framework

- 7.1 A sound legal framework, a proper governance structure and a comprehensive risk management framework are important elements in establishing a strong foundation for the effective and efficient management of the HKTR.

Legal basis

- 7.2 The HKTR should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions. The legal basis consists of the legal framework and the relevant rules, procedures and legal arrangements between the

parties.

7.2.1 The HKTR should have rules, procedures, and contracts that are clear, understandable, enforceable and consistent with the relevant laws and regulations.

7.2.2 The legal basis of the HKTR should provide a high degree of certainty for each material aspect of its activities in all relevant jurisdictions.

a) The legal basis of the HKTR should specifically define the rights and interests of its participants and other relevant stakeholders with respect to the data records stored in the HKTR. The legal basis of the HKTR should also determine the rules and procedures for providing access and disclosing data to its participants, relevant authorities and the public to meet their respective information needs, as well as data protection and confidentiality issues.

7.2.3 The HKTR 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.

7.2.4 The HKTR 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 HKTR under such rules and procedures will not be voided, reversed, or subject to stays.

7.2.5 Where the HKTR conducts businesses in multiple jurisdictions, it should identify and mitigate the risks arising

from any potential conflict of laws across jurisdictions.

Governance

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

7.3.1 The HKTR should have objectives that place a high priority on the safety and efficiency of the HKTR, and explicitly support financial stability and other relevant public interest considerations.

7.3.2 The HKTR 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.

7.3.3 The roles and responsibilities of the HKTR's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board (or equivalent) should review both its overall performance and the performance of its individual board members regularly. See paragraph 5.4 for the application of this requirement to the HKTR.

7.3.4 The board (or equivalent) should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of

non-executive board member(s). See paragraph 5.4 for the application of this requirement to the HKTR.

7.3.5 The roles and responsibilities of the management of the HKTR should be clearly specified. The HKTR'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 HKTR.

7.3.6 The board (or equivalent) should establish a clear, documented risk-management framework that includes the HKTR'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 (or equivalent).

7.3.7 The board (or equivalent) should ensure that HKTR's design, rules, overall strategy, and major decisions should 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.

Framework for the comprehensive management of risks

7.4 The HKTR should have a sound risk management framework for comprehensively managing legal, operational and other risks.

- 7.4.1 The HKTR 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 HKTR. Risk management frameworks should be subject to periodic review.
- 7.4.2 The rules and procedures of the HKTR play a key role in enabling its participants to understand the risks involved in participating in the HKTR. Therefore, the rules and procedures of the HKTR should be written in a clear and comprehensive manner so as to facilitate understanding by its participants of the risks that they may encounter through participating in the system.
- 7.4.3 The HKTR should provide incentives to its participants and, where relevant, their customers, to manage and contain the risks they pose to the HKTR.
- 7.4.4 The HKTR should regularly review the material risks it bears from and poses to other entities (such as other FMIs and service providers) as a result of interdependencies, and develop appropriate risk management tools to address these risks.
- 7.4.5 The HKTR 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. The HKTR should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, the HKTR should also

provide relevant authorities with the information needed for purposes of resolution planning. See paragraph 5.4 for the application of this requirement to the HKTR.

8. Safety Requirements

General business risk

8.1 The HKTR 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 materialise. The HKTR faces general business and operational risks, which may affect its reliability and robustness. The inability of the HKTR to continue its operations could have systemic risk implications for its participants and the broader financial markets.

8.1.1 The HKTR 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.

8.1.2 The HKTR should ensure there are sufficient resources (such as manpower, financial and information technology (IT)) to support system performance, including both day-to-day operations and system development.

8.1.3 The HKTR should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other

retained earnings)⁵ 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 the HKTR should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken. See paragraph 5.4 for the application of this requirement to the HKTR.

8.1.4 The HKTR should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, the HKTR should hold 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. See paragraph 5.4 for the application of this requirement to the HKTR.

8.1.5 Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the HKTR to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions. See paragraph 5.4 for the application of this requirement to the HKTR.

⁵ According to the PFMI, if the FMI's corporate structure is such that it cannot legally or institutionally raise equity (for example under certain structures of mutual ownership or when the FMI is run by a central bank) or if the FMI is a new start-up and cannot initially raise the required level of equity, it should ensure an equal amount of equivalent loss absorbing financial resources is available.

8.1.6 The HKTR 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. See paragraph 5.4 for the application of this requirement to the HKTR.

8.2 *Control of access, physical security and information integrity*

Access control

8.2.1 The HKTR should ensure the safety of the system by controlling access to its operations. Such controls should be secure and robust, with security reviewed and tested periodically.

Physical security

8.2.2 The HKTR should have comprehensive physical security policies that address all potential vulnerabilities and threats. In particular, the HKTR should have effective policies for assessing and mitigating vulnerabilities in its physical sites from attacks, intrusions and natural disasters.

Information security and integrity

8.2.3 The security and integrity of information held within the HKTR is a key safety requirement. The data should be protected from loss, leakage, unauthorised access and other processing risks caused by human input errors, negligence, fraud, poor administration and inadequate record-keeping.

8.2.4 The HKTR should have sound and robust information security policies, standards, practices and controls to identify, assess and manage security threats and vulnerabilities and implement appropriate safeguards. The information security objectives and policies should conform to established industry standards for confidentiality, integrity, authentication, authorisation, non-repudiation, availability and auditability.

8.2.5 The integrity and confidentiality of data should be ensured by means of suitable measures and effective controls including:

- a) adequate back-up of all data and information (real-time back-up is expected for important or key information);
- b) mechanisms for storage and avoiding leakage to third parties;
- c) mechanisms to minimise human input errors; and
- d) both physical and logical access controls.

8.3 *Outsourcing*

8.3.1 In case there is a need for outsourcing arrangements for certain areas of the operations of the HKTR, operational reliability, information integrity, security procedures and business continuity plan (BCP) should extend to such outsourced areas or processes and the relevant service providers. Therefore, the proposed outsourcing arrangements should be subject to a comprehensive risk

assessment and all the risks identified should be adequately addressed before the plans are implemented. The risk assessment should cover, inter alia, the following:

- a) the importance and criticality of the services to be outsourced;
- b) reasons for the outsourcing (e.g., cost and benefit analysis); and
- c) the impact on the system's risk profile of the outsourcing.

8.3.2 Even when any operations or processes of the HKTR are outsourced, the HKTR remains responsible for such outsourced operations and processes and for ensuring that the requirements under this oversight framework are complied with.

8.4 *Personnel*

8.4.1 To ensure the safety and reliability of the HKTR, personnel engaged in the operation of the system should possess levels of knowledge, qualification and experience appropriate for their duties and responsibilities and be well-trained and competent. The staff responsible for technical support of the system components should be available when needed (including out of normal business hours) to correct errors and resolve problems. They should be subject to stringent internal controls including arrangements to identify and avoid potential conflicts of interest.

8.5 *Operational risk*

8.6 The HKTR 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 HKTR's obligations, including in the event of a wide-scale or major disruption.

8.6.1 The HKTR should establish a robust operational risk management framework with appropriate systems, policies, procedures and controls to identify, monitor and manage operational risks.

8.6.2 The HKTR's board of directors (or equivalent) should clearly define the roles and responsibilities for addressing operational risk and should endorse HKTR's operational risk-management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.

8.6.3 The HKTR should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.

8.6.4 The HKTR should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.

System capacity

- 8.6.5 The HKTR should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.

Business continuity plan

- 8.6.6 The HKTR should have a BCP 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 IT systems can resume operations within two hours following disruptive events. The HKTR should regularly test these arrangements. This requires the HKTR, among other things:

- a) to have detailed contingency plans, including back-up arrangements for its crucial communications and computer systems and key personnel. The contingency plans should have the following elements:
 - i) clearly stated objectives (including recovery time and recovery points), policies and procedures that allow for the rapid recovery and timely resumption of critical operations following a disruption to a service;
 - ii) identification of events that pose a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption to the operations of the system, and establishing

measures to address such events; and

- iii) clearly defined procedures for crisis and event management, including procedures to deal with potential data loss and timely and effective communication strategies to consult with and inform its participants, interdependent FMIs, regulators and others (e.g., critical service providers) and, where relevant, the media;
- b) to set up a secondary site with sufficient resources, capabilities, functionalities and appropriate staffing arrangements that would not be affected by a wide-scale or major disruption to the operations of the HKTR at the primary site and would allow the secondary site to take over the operations at the primary site if needed;
- c) to undertake testing of its business recovery arrangements regularly. Tests should include scenarios that simulate wide-scale and major disruptions to the operations at the primary site and inter-site switch-overs. System participants, critical service providers and interdependent FMIs, where appropriate and to the extent possible, should be involved in the testing; and
- d) to conduct regular reviews of the adequacy of these arrangements and make such modifications as are necessary.

8.6.7 The HKTR should identify, monitor, and manage the risks

that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, the HKTR should identify, monitor, and manage the risks its operations might pose to other FMIs.

9. Efficiency and Effectiveness Requirements

9.1 The HKTR should be efficient and effective in meeting the requirements of its participants and the markets it serves.

9.1.1 The HKTR should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of operating structure; scope of products recorded; and use of technology and procedures.

9.1.2 The HKTR should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk management expectations and business priorities.

9.1.3 The HKTR should have established mechanisms for the regular review of its efficiency and effectiveness.

9.2 *System efficiency*

9.2.1 As mentioned above, the HKTR should be designed and operated to meet the needs of its participants and the markets it serves. Therefore, the technical arrangements of the system should be sufficiently flexible to respond to changing demands and new technologies.

9.2.2 The efficiency of the HKTR will ultimately affect the use of

the system by its participants and their customers as well as these entities' ability to conduct robust risk management, which may affect the broader efficiency of financial markets.

9.2.3 In promoting system efficiency, the HKTR should consider the practicality and costs for its participants and other relevant parties (e.g., linked FMIs), and ensure that the actual performance of the system meets the standards as stated in the system specifications and the relevant service agreements.

9.3 *Speed and efficiency of operations*

9.3.1 The HKTR should ensure that its operations are carried out with efficiency. In particular, the following conditions should be fulfilled:

- a) the HKTR should ensure that its system can process the transaction data at the required speed, including at peak times or on peak days. It should also plan for changes in volumes or business patterns so that the required speed can be maintained; and
- b) the system should seek to economise on costs by establishing mechanisms for the regular review of its efficiency, including its costs and pricing structure. Cost considerations, however, should always be balanced against the safety requirements of the system.

9.4 *Effectiveness*

9.4.1 The goals and objectives of the HKTR should include

timeliness and accuracy. The HKTR should promptly record the transaction information it receives from its participants.

- 9.4.2 The HKTR should employ efficient recordkeeping procedures to document changes to recorded transaction information resulting from subsequent post-trade events. The HKTR should ideally set a service-level target to record transaction information it receives from participants in real time, and at a minimum, within one business day.
- 9.4.3 The HKTR should have adequate procedures and timelines for making data available for any downstream processing and should implement quality controls to ensure the accuracy, validity and integrity of the data it stores and disseminates.
- 9.4.4 The HKTR should have effective processes and procedures for the provision of data to relevant authorities.

Access and participation requirements

- 9.5 The HKTR should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.
 - 9.5.1 The HKTR 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. See paragraph 5.4 for the application of this requirement to the HKTR.
 - 9.5.2 The HKTR's participation requirements should be justified in terms of the safety and efficiency of the HKTR and the

markets it serves, be tailored to and commensurate with the HKTR's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, the HKTR should endeavour to set requirements that have the least restrictive impact on access that circumstances permit. See paragraph 5.4 for the application of this requirement to the HKTR.

- 9.5.3 The HKTR should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension or orderly exit of a participant that breaches, or no longer meets, the participation requirements. See paragraph 5.4 for the application of this requirement to the HKTR.

9.6 *Cost of participation*

- 9.6.1 The HKTR should ensure efficiency by keeping the overall cost to a participant of its participation in the system reasonable, having regard to the services provided by the HKTR to the participants.
- 9.6.2 Generally speaking, the cost of participation in the HKTR comprises two components:
- a) System service fees and charges – which can be affected by the processing costs of the system; and
 - b) Participants' internal processing costs – which are external to the system but can be influenced by the system design.

- 9.6.3 The internal processing costs of participants of the HKTR may include the costs of preparing instructions capable of being accepted by the system, transmitting and receiving system messages and internal processing borne by the participants. While the HKTR cannot control these costs directly, it needs to be aware of how the system design, as well as technology and procedures adopted by the system, might affect these costs.

Tiered participation arrangements

- 9.7 The HKTR should identify, monitor, and manage the material risks to the HKTR arising from tiered participation arrangements.
- 9.7.1 The HKTR 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 HKTR arising from such tiered participation arrangements.
- 9.7.2 The HKTR should identify material dependencies between direct and indirect participants that might affect the HKTR.
- 9.7.3 The HKTR should identify indirect participants responsible for a significant proportion of transaction data processed by the HKTR and indirect participants whose transaction data volumes or values are large relative to the capacity of the direct participants through which they access the HKTR in order to manage the risks arising from such transaction data.
- 9.7.4 The HKTR should regularly review risks arising from tiered

participation arrangements and should take mitigating action when appropriate.

Communication procedures and standards

9.8 The communication procedures and standards are particularly important for a TR as it serves as a data centre for a variety of stakeholders potentially located in many jurisdictions. The HKTR should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient recording.

9.8.1 In particular, the HKTR should use, or at a minimum accommodate, internationally accepted communication procedures and standards.

- a) The HKTR should support technologies that are widely accepted in the market, including applicable market standards for reporting and recording trade information.
- b) Where appropriate, the HKTR should adopt industry standards for data representation, including those related to the unique identification of counterparties (such as legal entity identifiers) to facilitate the use and aggregation of data stored in the repository, especially by authorities.

10. System Links with other Financial Market Infrastructures

10.1 Where the HKTR establishes a link with one or more FMIs, it should identify, monitor, and manage link-related risks.

- 10.1.1 Before entering into a link arrangement and on an ongoing basis once the link is established, the HKTR should identify, monitor and manage all potential sources of risks arising from the link arrangement. Link arrangements should be designed such that each FMI is able to observe the other requirements in this Guideline where applicable.
- 10.1.2 The links should have a well-founded legal basis, in all relevant jurisdictions, that supports their design and provides adequate protection to the FMIs involved in the link. For links that are cross-border, legal risks may arise from differences in applicable laws and rules governing the linked FMIs and their participants in different jurisdictions. To limit these uncertainties, the respective rights and obligations of the linked FMIs and, where necessary, their participants should be clearly set out in the link agreement. The link agreement should also set out, in cross-jurisdictional context, an unambiguous choice of law that will govern each aspect of the link.
- 10.1.3 The HKTR should carefully assess the additional operational risks related to its links to other FMIs to ensure the scalability and reliability of IT and related resources. The linked FMIs should provide an appropriate level of information about their operations to each other in order for each of the FMIs involved to perform effective periodic assessments of the operational risks associated with the link. In particular, the FMIs should ensure that risk management arrangements and processing capacity are sufficiently scalable and reliable to operate the link safely for both the current and projected peak volumes of activities processed over the link. Arrangements between the linked FMIs

should also be reliable and secure so that the link does not pose significant operational risk to the linked FMIs. Any reliance by a linked FMI on a critical service provider should be disclosed as appropriate to the other FMI. In addition, a linked FMI should identify, monitor and manage operational risks due to complexities or inefficiencies associated with different time zones as these may have significant resource implications (e.g., staff availability).

11. Disclosure of Rules, Key Procedures and Market Data

11.1 The HKTR 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 HKTR. All relevant rules and key procedures should be publicly disclosed.

11.1.1 The HKTR should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.

11.1.2 The HKTR should disclose clear descriptions of the system's design and operations and the rights and obligations of the HKTR and the participants so that the participants can assess the risks they would incur when participating in the HKTR.

11.1.3 The HKTR should provide all necessary and appropriate documentation and training to facilitate its participants' understanding of its rules and procedures and the risks they face from participating in the HKTR.

11.1.4 The HKTR should publicly disclose its fees at the level of

individual services it offers as well as its policies on pricing structure, including any available discounts. The HKTR should provide clear descriptions of priced services for comparability purposes.

- 11.1.5 The HKTR should complete regularly and disclose publicly responses to the CPMI-IOSCO Disclosure Framework for financial market infrastructures. The HKTR also should, at a minimum, disclose basic data on transaction volumes and values.

12. Disclosure of Market Data by the HKTR

- 12.1 The HKTR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

- 12.1.1 The HKTR should provide data in line with the regulatory and industry expectations to relevant authorities and the public, respectively, that is comprehensive and at a level of detail sufficient to enhance market transparency and support other public policy objectives.

- 12.1.2 The HKTR should have effective processes and procedures to provide data to relevant authorities in a timely and appropriate manner to enable them to meet their regulatory mandates and legal responsibilities. The provision of data by the HKTR to the relevant authorities should be supported from a legal, procedural, operational and technological perspective.

- 12.1.3 The HKTR should also be able to provide different scopes and levels of data depending on the respective information

needs of the relevant authorities and in accordance with applicable laws and regulations. Subject to the applicable laws and regulations, relevant authorities may have access to additional data kept by the HKTR, including participant-level data, which is relevant to their respective regulatory mandates and legal responsibilities which may include market regulation and surveillance, oversight of market infrastructures, prudential supervision, resolution of failed institutions and systemic risk regulation.

12.1.4 The HKTR should have robust information systems that provide accurate current and historical data. The HKTR should collect, store, and provide data to its participants, authorities, and the public in a timely manner and in a format that permits the data to be easily analysed.

a) The HKTR should make the data and other relevant information it discloses publicly readily available through generally accessible media, such as the Internet, in a language commonly used in financial markets. The data should be accompanied by robust explanatory documentation that enables users to understand and interpret the data correctly.

D. OVERSIGHT APPROACH

13. Introduction

13.1 The objective of the oversight is to provide an effective process to monitor and assess the compliance of the HKTR with the requirements

as stipulated in this oversight framework. The process follows a risk-based approach. This involves on-going monitoring of the compliance of the HKTR with a focus on areas of high risks using a variety of techniques aimed at detecting problems at an early stage.

13.2 The oversight of the HKTR is conducted through the following means:

13.2.1 off-site reviews and continuous monitoring;

13.2.2 on-site examinations;

13.2.3 auditor's reports;

13.2.4 meeting with the management of the TR team;

13.2.5 co-operation with other authorities where relevant; and

13.2.6 follow-up actions.

14. Off-site Reviews and Continuous Monitoring

14.1 These form the core of the oversight approach for the HKTR. The reviews enable the FMIO team to evaluate the degree of compliance of the HKTR with the requirements as stipulated in this oversight framework. Information is collected, on a regular basis, on transaction volumes, system performance statistics, incidents of default, non-compliance with the requirements as stipulated in this oversight framework and significant events in the coming months which may have risk implications for the HKTR.

14.2 In addition, the FMIO team may require the HKTR to provide supplementary information, on a timely basis, for off-site reviews and other analyses. The information may include confidential and non-public information such as the functions, activities, the BCPs and the overall financial condition of the HKTR and periodic auditor's reports on various risk areas.

14.3 In addition to regular submission of returns, the HKTR should report to the FMIO team any delays or abnormal events as soon as possible. This should be followed by a written report to the FMIO team within a reasonable time specified by the FMIO team, explaining the cause and impact of the event and the remedial action taken or to be taken. The HKTR should inform the FMIO team as early as possible if it has difficulty in submitting the report within the specified time. The FMIO team may also require the HKTR to provide relevant information which may be useful for the FMIO team to understand and assess:

- a) the risks borne or created by the HKTR and, where appropriate, its participants;
- b) the HKTR's impact on its participants and the broader economy; and
- c) the HKTR's adherence to the relevant laws, regulations and policies.

15. On-site Examinations

15.1 On-site examinations complement the FMIO team's off-site reviews and provide it with the opportunity to assess at first-hand how HKTR is being operated, managed and controlled. On-site examinations will be conducted when necessary. In general, the scope of an on-site examination will focus on priority areas identified through the off-site review process that either presents high-risk areas or where control process validations are needed.

15.2 The FMIO team will discuss the main findings of the examination with the HKTR and will consider its comments/feedback before issuing a formal report. An on-site examination report, which will identify any

area of weakness or concern and make recommendations for remedial action, will be issued to the HKTR. The frequency of on-site examination varies and will be conducted on a need basis.

16. Auditor's Reports

- 16.1 To supplement off-site reviews and on-site examinations, the FMIO team may request the HKTR to submit an auditor's report on high-risk areas or other areas of concern to assist the FMIO team in deciding whether the HKTR complies with the requirements as stipulated in this oversight framework.
- 16.2 If considered necessary, the FMIO team may hold a tripartite meeting with the auditor and the appropriate management personnel of the HKTR to discuss matters arising from the auditor's report.

17. Meeting with the Management of the HKTR

- 17.1 As part of the continuous oversight process, the FMIO team will hold an annual meeting with the appropriate management personnel of the HKTR. The purpose of the meeting is to discuss the findings of off-site reviews (and on-site examinations if such examinations have been conducted during the year), and particularly any significant deficiencies identified or any other matters of concern or mutual interest. The meeting also enables the FMIO team to better understand how the HKTR views and controls risks and how the HKTR assesses the business situation and future development.
- 17.2 The FMIO team will prepare a report to the HKTR, summarising the discussion, any agreement reached and any follow-up actions required. Apart from the annual meeting, the FMIO team will meet with the

management of the HKTR to discuss issues of concern at such other times as considered necessary.

18. Co-operation with other authorities

- 18.1 Where necessary, the HKMA will co-operate with other authorities in overseeing the links established between the HKTR and other FMIs. Appropriate co-operative oversight frameworks will be established to assist the relevant authorities in discharging their oversight functions.

19. Follow-up Actions

- 19.1 When evaluating the compliance of the HKTR with the oversight requirements, the FMIO team may make recommendations to the HKTR, asking it to take steps to meet the oversight requirements where appropriate. On receipt of such recommendations, the HKTR is required to make changes or take corrective actions as soon as practicable to ensure that the relevant requirements are met. The FMIO team will closely monitor the implementation of the recommendations or the required actions by the HKTR.
- 19.2 To preserve confidentiality, oversight information obtained from the HKTR during the course of oversight is subject to official secrecy and may not be disclosed to third parties except as permitted under applicable laws, rules and regulations.

E. OTHERS

20. Miscellaneous

- 20.1 It should be noted that although the FMIO team is responsible for overseeing the HKTR, the primary responsibility for day-to-day operational aspects of the HKTR rests with the HKTR. The FMIO team does not get involved in the daily operations of the HKTR.
- 20.2 The FMIO team does not oversee the relations between the participants of the HKTR and their respective customers. It is the responsibility of the HKTR to identify, monitor and manage those risks arising from the relationship between the HKTR and its participants.

CPMI-IOSCO Principles for Financial Market Infrastructures: Principles applicable to Trade Repositories

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.

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.

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.

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 materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

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.

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.

Principle 19: Tiered participation arrangements

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Principle 20: FMI links

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

Principle 21: Efficiency and effectiveness

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

Principle 22: Communication 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.

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 publicly disclosed.

Principle 24: Disclosure of market data by trade repositories

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