

GUIDELINE ON THE OVERSIGHT FRAMEWORK FOR DESIGNATED SYSTEMS UNDER THE CLEARING AND SETTLEMENT SYSTEMS ORDINANCE

A Guideline issued by the Monetary Authority
under Section 54 of the Clearing and Settlement Systems Ordinance

Purpose

To explain the oversight requirements, including the safety and efficiency requirements, under sections 7 and 8 of the Clearing and Settlement Systems Ordinance and the process that the Monetary Authority intends to follow, on an ongoing basis, with respect to the oversight of the designated systems under the Ordinance.

Classification

A statutory guideline issued by the MA under the Clearing and Settlement Systems Ordinance, §54

Previous guidelines superseded

This is a new guideline.

Application

To all designated systems under the Clearing and Settlement Systems Ordinance.

Structure

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INTRODUCTION

1. Background

- 1.1 The effective functioning of clearing and settlement systems, which allows transactions to be completed safely and on time, is essential to the monetary and financial stability of Hong Kong and to the functioning of Hong Kong as an international financial centre. The Monetary Authority (the "MA") is responsible for designating and overseeing important clearing and settlement systems with a view to promoting the general safety and efficiency of their operations. The statutory regime for such designation and ongoing oversight is set out in the Clearing and Settlement Systems Ordinance (Cap. 584) (the "Ordinance"). The designation regime under the Ordinance is further elaborated in the "Explanatory Note on Designation and Issuance of Certificate of Finality of Clearing and Settlement Systems

under the Clearing and Settlement Systems Ordinance”¹ (the “Explanatory Note”). By monitoring the compliance of designated systems with their obligations stipulated in the Ordinance, the MA aims to protect the monetary and financial systems in Hong Kong from possible destabilising effects which may occur due to disruption to the functioning of any of those clearing and settlement systems.

2. Purpose of the Guideline

- 2.1 This Guideline is issued under section 54 of the Ordinance². The purpose of this Guideline is to explain the MA’s interpretation of the oversight requirements, including the safety and efficiency requirements, under sections 7 and 8 and the process that the MA intends to follow, on an ongoing basis, with respect to the oversight of designated systems. Under section 41, contravention of section 7(1) or 7(3) is each liable on conviction upon indictment to a fine of \$400,000.
- 2.2 The MA will issue a certificate of finality in respect of a designated system if he is satisfied that ultimate settlement of transfer orders is effected within the system itself and that the requirements under section 7(1) are complied with. The MA may suspend or revoke a certificate of finality if any of the issuance criteria is no longer met or the designated system fails to comply with certain provisions of the Ordinance. For details of the issuance, suspension or revocation of the certificate of finality, please refer to the Explanatory Note.
- 2.3 This Guideline is not intended to be a comprehensive guide of the obligations of designated systems set out in the Ordinance. System operators, settlement institutions and participants of designated systems are

¹ Available on the HKMA website: www.hkma.gov.hk.

² All references to section numbers in this Guideline refer to those of the Ordinance, unless otherwise specified.

advised to familiarise themselves with other obligations stipulated in the Ordinance. Reference should also be made to the Explanatory Note.

- 2.4 The MA may, from time to time, issue further guidelines containing information on this and other aspects relating to his exercise of any power or performance of any function assigned to him under the Ordinance.

3. Terminology

- 3.1 Terms used in this Guideline have the following meanings³:
- (a) “clearing and settlement system” means a system established for—
 - (i) the clearing or settlement of payment obligations; or
 - (ii) the clearing or settlement of obligations for the transfer of book-entry securities, or the transfer of such securities;
 - (b) “designated system” means a clearing and settlement system that has been designated for the purposes of the Ordinance by the MA under section 4(1);
 - (c) “operating rules”, in relation to a clearing and settlement system, means the rules or terms that govern the functioning or operations of the system;
 - (d) “participant”, in relation to a clearing and settlement system, means a person who for the time being is a party to the arrangement by which the system is established;
 - (e) “settlement institution”, in relation to a clearing and settlement system, means a person providing settlement accounts to the participants and to any central counterparty in the system for the settlement of transfer orders within the system and, as the case may be, for extending credit to such participants and any such central counterparty for settlement purposes; and
 - (f) “system operator”, in relation to a clearing and settlement system, means any person who, for the purposes of the system’s operating

³ The definitions are the same as those under section 2 of the Ordinance.

rules, is responsible for the operation of the clearing and settlement functions of the system.

POLICY FRAMEWORK

4. Minimum Standards

4.1 This Guideline sets out the minimum standards for designated systems to comply with sections 7 and 8 and these standards are explained in detail in the paragraphs under the heading “Oversight Requirements”. Designated systems, including the deemed designated systems specified in Schedule 2 to the Ordinance, are required to comply with these standards on an ongoing basis and the MA will regularly evaluate the designated systems against these standards.

5. International Best Practices

5.1 In addition, though not mandatory, the MA encourages designated systems to comply with the Committee on Payment and Settlement Systems (“CPSS”)’s *Core Principles for Systemically Important Payment Systems*⁴ (the “10 Core Principles”), and CPSS-International Organisation of Securities Commissions (“IOSCO”) Technical Committee’s *Recommendations for Securities Settlement Systems*⁵ (the “19 Recommendations”), which are now internationally accepted as representing the standards for best practice in this area.

5.2 The MA is supportive of the *10 Core Principles* and the *19 Recommendations* (listed at **Annex** for reference) and has taken them into

⁴ “Core Principles for Systemically Important Payment Systems”, CPSS, Bank for International Settlements, January 2001. The CPSS serves as a forum for the central banks of the Group of Ten countries (G10) to monitor and analyse developments in domestic payment, settlement and clearing systems as well as in cross-border and multicurrency settlement schemes. A payment system is systemically important where, if the system were insufficiently protected against risk, disruption within it could trigger or transmit further disruptions amongst participants or systemic disruptions in the financial area more widely.

⁵ “Recommendations for Securities Settlement Systems”, report of the CPSS-IOSCO Joint Task Force on Securities Settlement Systems, Bank for International Settlements, November 2001.

account in explaining the minimum standards applicable to designated systems under sections 7 and 8 of the Ordinance.

OVERSIGHT REQUIREMENTS

Under section 7(1)(a), every system operator and settlement institution of a designated system should ensure that the operations of the system are conducted in a safe and efficient manner calculated to minimise the likelihood of any disruption to the functioning of the system. To this end, the MA expects the systems to meet the minimum standards below.

6. Safety Requirements

6.1 *Certainty as to what constitutes settlement*

6.1.1 Under section 8(1)(a), the operating rules of a designated system should provide for certainty as to the circumstances under which transfer orders effected through the system are to be regarded as settled for the purposes of the system (Please also refer to the requirements on operating rules in paragraph 8 of this Guideline). For this purpose, the operating rules should make certain the status of payment instructions at the point of settlement, and where applicable, specify:

- (a) the point at which a transfer order takes effect as having been entered into the system;
- (b) the point after which a transfer order may not be revoked by a participant or any other party; and
- (c) how failure to settle is to be dealt with.

6.2 *Reliability and robustness of operation*

6.2.1 The rules and procedures of a clearing and settlement system play a key role in enabling participants to understand the risks (see

paragraph 6.2.2) they may incur. To ensure that the operations of a designated system are reliable and robust as specified in section 8(1)(b), the operating rules and procedures of such system should be written in a clear and comprehensive manner so as to facilitate understanding by its participants of the risks they may encounter through participation in the system.

6.2.2 The following types of risks are defined in “*A Glossary of Terms Used in Payments and Settlement Systems*”⁶. They may lead to failure of settlement of a transfer order if not properly managed:

- (a) *Credit risk* - the risk that a counterparty (or participant) in a clearing and settlement system will not settle an obligation for full value, either when due or at any time thereafter;
- (b) *Liquidity risk* - the risk that a counterparty (or participant in a clearing and settlement system) will not settle an obligation for full value when due. Liquidity risk does not imply that a counterparty or participant is insolvent since it may be able to settle the required debit obligations at some unspecified time thereafter;
- (c) *Legal risk* - in general, the risk of loss because of the unexpected application of a law or regulation or because a contract cannot be enforced. For clearing and settlement systems, it means the risk that a party will suffer a loss because the relevant laws or regulations do not support the rules of such a system, the performance of related settlement arrangements, or the property rights and other interests held through the clearing and settlement system. Legal risk also arises if the application of the relevant laws and regulations is unclear;
- (d) *Operational risk* - the risk that deficiencies in information systems or internal controls could result in unexpected losses; or the risk of human error or a breakdown of some

⁶ Published by the CPSS in March 2003.

components of the hardware, software or communication systems that are crucial to the settlement process of a clearing and settlement system;

- (e) *Pre-settlement risk (replacement cost risk)* - the risk that a counterparty (or participant) in a clearing and settlement system to an outstanding transaction for completion at a future date will fail to perform on the contract or agreement during the life of the transaction. The resulting exposure is the cost of replacing the original transaction at current market price and is also known as replacement cost risk; and
- (f) *Custody risk* - the risk of loss of securities held in custody occasioned by the insolvency, negligence or fraudulent action of the custodian or of a subcustodian.

6.2.3 The rules and procedures of designated systems should include mechanisms to manage risks, which may include, for example:

- (a) *Mechanism to control credit risk exposure*

For well designed real-time gross settlement (“RTGS”) systems, credit risk between participants generally does not arise. But for other systems which involve a delay between entering into a system for settlement and final settlement, the delay will result in credit exposures between participants, which have to be monitored and controlled. Appropriate mechanisms should thus be put in place to manage the credit risk incurred;

- (b) *Liquidity arrangements to support timely settlement*

Designated systems should have in place mechanisms for managing liquidity risks. These may include, for example:

- (i) mechanisms to manage payment queues effectively;
- (ii) provision of intraday liquidity;
- (iii) mechanisms to minimise gridlock (only applicable to RTGS systems);
- (iv) throughput guidelines; and

(v) provision of up-to-date information on account balances, as well as on settled and pending payments and securities deliveries in real time; and

(c) *Measures to reduce custody risk*

For a securities settlement system, the entity holding securities in custody should adopt accounting practices and safekeeping procedures that fully protect customers' securities.

6.2.4. System operators should ensure that designated systems have adequate capacity to process expected volumes of transactions, including at peak times or on peak days. They should regularly monitor and test the actual capacity and performance of their systems, and plan for changes of volumes or business patterns, so that the required levels of payment throughput are maintained. System operators should also regularly conduct stress testing to verify whether their systems can handle abnormally huge volumes of transactions under extreme circumstances.

6.2.5 Section 7(1)(d) requires each designated system to have available financial resources appropriate for the proper performance of the system's particular functions. When assessing whether a designated system has complied with the safety requirements, the MA will consider the financial resources available to the system operator and settlement institution for both day-to-day operations and system development, taking account of the particular functions of the system and its business development plans. In this regard, the MA will review the financial data of the system operator and settlement institution, as well as the strength of and support from its shareholders or parent institution.

6.2.6 Every designated system should have in place a Business Continuity Plan ("BCP") to ensure the timely recovery of its usual operations in

the event of a contingency. This requires that the system operator and settlement institution of a designated system:

- (a) to have detailed contingency plans, including back-up arrangements for its crucial communications and computer systems and key personnel;
- (b) to require its participants to have appropriate complementary arrangements in the case of a contingency;
- (c) to undertake testing of its business recovery arrangements regularly; and
- (d) to conduct regular reviews of the adequacy of these arrangements and make such modifications as are necessary and desirable.

6.2.7 In case there is a need for outsourcing arrangements for certain areas of the operations of a designated system, operational reliability, information integrity, security procedures and BCP should extend to the affected areas, processes and personnel. As outsourcing arrangements differ from case to case, the system operator and settlement institution of any designated system which intends to outsource certain areas of its operation or make changes to or amend the scope of its outsourcing in respect of such areas should discuss their plans with the MA in advance. 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. Specifically, 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.

6.2.8 Even when any operations or process of a designated system is outsourced, the system operator and settlement institution remain

responsible for the operations and processes to ensure that the requirements under the Ordinance are being complied with.

6.2.9 The MA expects that there is well-trained and competent personnel engaged in respect of every designated system to ensure the safe and reliable operation of the systems. The personnel should possess the proper levels of knowledge and experience for their tasks. The staff responsible for technical support of all the components of the system should be available when needed (including out of normal business hours) to correct errors and resolve problems.

6.3 *Access control*

6.3.1 Under section 8(1)(c), system operators and settlement institutions should ensure the safety of designated systems by controlling over access to the operations of their respective systems. Such controls should be secure and robust, with security reviewed and tested periodically.

6.4 *Information integrity*

6.4.1 The integrity of information held within a designated system is considered a key safety requirement under section 8(1)(d). Correct and complete processing of transactions and the confidentiality of data should be ensured by means of suitable measures and effective controls including but not limited to:

- (a) adequate back-up of all data and information (real-time backup is expected for important or key information);
- (b) mechanism for storage and avoiding leakage to third parties;
and
- (c) mechanism to minimise human input error.

7. Efficiency Requirements

7.1 The system operator and settlement institution of a designated system should ensure that the actual performance of the system meets the standards as stated in the system specifications and relevant service agreements. The MA will assess a system's compliance with the efficiency requirements set under the Ordinance based on such factors as user's feedback, in particular, through industry associations, and the performance benchmark, if applicable, of comparable local or overseas systems.

7.2 *Speed and efficiency of operations*

7.2.1 Under section 8(2)(a), the system operator and settlement institution of a designated system should ensure the operations relating to transfer orders within the system are carried out with efficiency. In particular, they should fulfil the following conditions:

- (a) the system operator should ensure that its designated system can process transfer orders with 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 could be maintained;
- (b) in addition to the efficient running of the information technology ("IT") system, the system operator and/or settlement institution should put in place and regularly update liquidity management measures to provide adequate arrangements for intraday liquidity, effective management of payment queues and mechanisms to minimise gridlock; and
- (c) the system should seek to economise on total processing costs (i.e. the costs of handling a payment instruction, and preparing and executing the resulting settlement entries) with regard to such factors as the needs of its participants, and the current and prospective costs of inputs like labour and technology.

7.3 *Cost of participation*

- 7.3.1 Under section 8(2)(b), the system operator and settlement institution of a designated system should ensure efficiency by keeping the overall cost to a participant of his participation in the system reasonable, having regard to the services provided by the system to its participants.
- 7.3.2 Generally speaking, the cost of participation is comprised of three components:
- (a) system services fees and charges – which can be affected by the processing costs of the system mentioned in paragraph 7.2.1(c);
 - (b) own internal processing costs of participants – which are external to the system but can be influenced by the system design; and
 - (c) cost to participants of holding liquidity to fund payments.
- 7.3.3 The internal processing cost of participants in a designated system may include the costs of preparing payment instructions, transmitting and receiving payment messages and internal processing borne by the participants. While the system operator 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.
- 7.3.4 The cost to participants of holding liquidity or collateral to fund payments represents an indirect cost of participation. It can be affected by the level of intraday liquidity that normally needs to be maintained by a participant given the queuing mechanism or liquidity provision facility of the system.
- 7.3.5 The MA will take into account the above when considering the cost of participation in a system. Where appropriate, comparison would be made with systems offering similar services elsewhere.

7.4 Admission criteria

7.4.1 The system operator and/or settlement institution should ensure that participants have non-discriminatory access to their designated system as unreasonable barriers to entry could reduce usage, which in turn may increase the average processing cost per transaction and potentially increase each participant's share of cost, thereby affecting efficiency.

7.4.2 Section 8(2)(c) provides that the criteria for admission as a participant in any designated system should be reasonable. The criteria for admission should be objective and publicly disclosed. Prudential standards such as financial standing of a participant should be adopted to ensure system integrity.

7.5 *No measures to unfairly limiting competition*

7.5.1 Section 8(2)(d) requires that generally, there should not be any measure having the effect of unfairly limiting, or exploiting the absence of, competition in relation to the functions performed by a system. The entry criteria to a designated systems should permit fair and open access. Any access restriction should be objective and based on appropriate risk criteria.

8. Requirements on Operating Rules

8.1 The operating rules of a clearing and settlement system, if properly designed and maintained, help ensure safe and efficient operation of the system. Under section 7(1)(b), a designated system is required to have in place operating rules that comply with the requirements in section 7(2) and with any prescribed requirements relating to the operating rules of a designated system. Section 7(2)(a) also provides that those rules shall impose on participants requirements that are no less stringent than the requirements imposed on participants under the other provisions of the

Ordinance. Specifically, the MA expects the rules to satisfy the requirements below.

8.2 *Design of the rules*

8.2.1 The rules of a designated system should be clear, comprehensive, up-to-date and available to all participants. They should identify the settlement institution, outline clearly the roles of participants and the system operator, and the procedures that will be followed in different circumstances (for example, which parties are to be notified of particular events and the timetables for decision-making and notification). Those rules should apply to all participants in the same category on equal footing. The participants should be informed of any changes to the operating rules as soon as practicable.

8.3 *Arrangements to monitor compliance with the rules*

8.3.1 Under section 7(1)(c), every system operator and settlement institution of a designated system should ensure that adequate arrangements are in place to monitor and enforce compliance with the operating rules of the system, including arrangements regarding the resources available to the system operator.

8.3.2 The system operator and/or settlement institution of a designated system should enter into contracts with their participants, which lay down the conditions of participation and suspension or termination of participation, and describe comprehensively the rights and obligations of the relevant parties involved.

8.3.3 The system operator and/or settlement institution should promptly notify the MA of the failure of any participant to comply with the operating rules that could create risks to the system and which has come to their attention.

8.4 *Mechanisms to deal with insolvency and default of a participant*

8.4.1 Under section 7(2)(b) and (c), the operating rules of a designated system are required to provide that if a participant becomes insolvent he may be suspended from the system, and to provide for default arrangements which are appropriate and adequate for the system in all circumstances. Such default arrangements are defined in the Ordinance as the arrangements in place within the system for limiting systemic and other types of risk in the event of a participant appearing to be, or likely to become, unable to meet his obligations in respect of a transfer order; and, without affecting the generality of the foregoing, includes any arrangements for:

- (a) the netting of obligations owed to or by the participant;
- (b) the closing out of open positions held by the participant; or
- (c) the realising of collateral security securing obligations owed by the participant.

8.4.2 The operating rules should set out the requirement that when a participant becomes unable to meet his obligations, he should notify the system operator and/or settlement institution as soon as possible. The relevant system operator and/or settlement institution should also inform the MA as soon as possible if such a case arises.

8.5 *Changes to the rules*

8.5.1 Section 7(3) prohibits any change to a designated system's operating rules without the prior approval in writing of the MA. When seeking the MA's approval for any change in the operating rules, the system operator or settlement institution is required to submit to the MA information, which cover, inter alia, the following:

- (a) details and reasons for the amendment;
- (b) proposed date and time from which the change is to become effective;

- (c) the transactions and parties affected; and
- (d) an assessment of the prospective risks, if any, arising from the change.

OVERSIGHT APPROACH

9. Introduction

9.1 The objective of the oversight approach of the MA is to provide an effective process to monitor and assess the compliance of designated systems with the obligations imposed under the Ordinance, in particular the safety and efficiency requirements, on a continuing basis. The process follows a risk-based approach. This involves on-going monitoring of the compliance of designated systems with a focus on areas of high risks using a wide variety of techniques which aim at detecting problems at an early stage.

9.2 The MA will conduct an annual assessment on the compliance of every designated system with the minimum standards set out under the heading “Oversight Requirements”. The oversight of designated systems is carried out through one or more of the following means:

- (a) off-site review and continuous monitoring;
- (b) on-site examination;
- (c) external auditor’s report;
- (d) meeting with the management of the system operators and settlement institutions of designated systems; and
- (e) co-operative oversight of cross-border designated systems.

10. Off-site review and continuous monitoring

10.1 Off-site review and continuous monitoring form the core of the MA’s oversight approach of designated systems.

- 10.2 The MA's power to request information or documents from the system operator or settlement institution of a designated system on both regular and ad hoc bases is provided for by section 12 of the Ordinance. It is important for the MA to have access to timely and reliable information of a designated system, as the information collected will be used to measure the performance of the system against the safety and efficiency standards set under the Ordinance.
- 10.3 The MA will collect information, on a monthly basis, on transaction volumes, transaction values, system performance statistics, incidents of default and non-compliance with operating rules by participants, and significant events in the coming months which may have risk implications on a designated system. In addition, the MA will also require the system operator and settlement institution of a designated system to provide supplementary information for off-site reviews. This includes submissions of data on the financial strength and financial commitment of the system operator and settlement institution, or, as the case may be, of the shareholders or parent company of the system, internal or external auditor's reports on various risk areas (e.g. internal control procedures, robustness of IT systems, contingency arrangements or any other areas specified by the MA) and business continuity plan. The MA will have important regard to auditor's reports in assessing the performance of the system. As such, the system operator and settlement institution of a designated system should provide periodic auditor's report, based on its in-house audit cycle, to the MA. Where internal auditor's reports are submitted, the system operator and settlement institution should satisfy the MA that the audit functions within their respective organisational structures are independent of their day-to-day operations. The information obtained by the MA will be used to evaluate the degree of compliance of the system with the requirements of the Ordinance and to conduct cross-institutional or peer group analysis.
- 10.4 In addition to regular submission of returns, the system operator and settlement institution of a designated system should report any delays or abnormal events of the system to the MA as soon as possible. This should

be followed by a written report to the MA within a reasonable time specified by the MA, explaining the cause and impact of the event, and the remedial action taken.

10.5 The prompt and accurate reporting of oversight information and statistics is of central importance to the effectiveness of the oversight regime. Non-compliance with information requirements will be seen as a warning sign requiring close investigation by the MA. Failure to provide information or documents as requested by the MA under the Ordinance, or provision of false or misleading information in a material particular, is each liable on conviction upon indictment to a fine of \$400,000 and to imprisonment for 2 years. In case of a continuing offence of failure to provide information or documents as requested by the MA, the relevant system operator or settlement institution is liable to a further fine of \$10,000 for every day during which the offence continues.

10.6 To preserve confidentiality, oversight information obtained from the system operator and settlement institution of a designated system during the course of oversight is subject to official secrecy requirements set out in section 50 and may not be disclosed by the MA to third parties except in the circumstances set out in section 50(3) and (4).

11. On-site examination

11.1 The on-site examination will complement the MA's off-site review and provides the MA with the opportunity to assess at first hand how a designated system is operated, managed and controlled.

11.2 Generally speaking, on-site examination focuses on topics identified through off-site review process that either present high risks or where control process validations are warranted. The scope of on-site examination may include, for example, credit and liquidity risk management, failure and crisis management and information technology infrastructure. The MA may also conduct meetings with the designated

system's risk management, compliance, audit and operations staff during the examination.

11.3 The MA will discuss the main conclusions of the examination with the system operator and settlement institution of the system and will consider their comments before issuing a formal on-site examination report. The on-site examination report will identify any area of weaknesses or concerns and make recommendations for remedial action.

11.4 The frequency of on-site examination varies from system to system. The MA will conduct on-site examination in respect of both the system operator and settlement institution on a need basis.

12. External auditor's report

12.1 To supplement off-site review and on-site examination, the MA may request on a need basis the system operator or settlement institution of a designated system to submit an external auditor's report on high risks areas or other areas of concern or areas that require assessment by experts (e.g. IT-related audit) under section 12. If considered necessary, the MA may request the external auditor's report to include an assessment of the quality of the internal audit's testing of controls. The external auditor's report will enable the MA to decide whether the system is in compliance with the Ordinance. The system operator or settlement institution should inform and, if necessary, consult the MA on the external auditor to be appointed by the system operator or settlement institution.

12.2 If considered necessary, the MA may hold a tripartite meeting with the external auditor and the senior management of the system operator and/or settlement institution to discuss matters arising from the auditor's report.

13. Meeting with the management of the system operators and settlement institutions of designated systems

13.1 As part of the continuous oversight process, the MA will hold an annual meeting with the senior management of the system operator and settlement institution of a designated system. 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), particularly any significant deficiencies in safety and efficiency requirements identified or any other matters of concern or mutual interest. The MA will prepare a report to the system operator and settlement institution, summarising the discussion made, the agreement reached and the follow-up actions required.

13.2 The MA attaches great importance to this regular dialogue as it enables the MA to understand better how the system operator and settlement institution view and control risks and how they view the business situation and future developments of their system.

14. Co-operative oversight of cross-border designated systems

14.1 The MA will, where appropriate, rely on co-operative oversight with the relevant supervisory authority of an overseas designated system to which an exemption under section 11(2) and/or (3) are granted. In this connection, the MA expects to work closely with the relevant overseas supervisory authority, using the framework such as that set out in the “Lamfalussy Report”⁷ (the Principles for Co-operative Central Bank Oversight of Cross-border and Multicurrency Netting and Settlement Schemes).⁸

⁷ It refers to the “Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries” published by the Bank for International Settlements in November 1990. Part D of the Report sets out the principles for co-operative central bank oversight.

⁸ The major principles of the framework set out in the “Lamfalussy Report” are:

- (a) the central bank of the country in which a cross-border or multi-currency clearing and settlement arrangement is located would have primary responsibility for the oversight of such an arrangement;
- (b) the authority with primary oversight would consult with other relevant authorities, giving particular attention to the system’s risk management procedures; and
- (c) the determination of a system’s settlement and failure-to-settle procedures should be the joint responsibility of the central bank of issue of a currency included in a system and the authority with the primary oversight responsibility for the system.

14.2 Under section 50(4) of the Ordinance, the MA may disclose information to an overseas supervisory authority which exercises functions corresponding to those of the MA, where in the opinion of the MA:

- (a) the disclosure is not contrary to the public interest;
- (b) the relevant overseas authority is subject to adequate secrecy provisions; and
- (c) such disclosure will assist the overseas authority to exercise those functions and help maintain and promote safety and efficiency in the operation of designated systems.

15. Follow-up actions

15.1 Upon evaluation of compliance of a designated system with the Ordinance, the MA may make recommendations to the system operator and/or settlement institution of the system, asking them to take steps to meet the oversight requirements under the Ordinance, where appropriate. The system operator and settlement institution are expected to follow and implement such recommendations as soon as practicable. The MA will closely monitor the implementation of the recommendations by the system operator and settlement institution.

15.2 If the system operator or settlement institution refuses or fails to make improvements to comply with the oversight requirements within a reasonable timeframe as specified by the MA, the MA may consider giving a direction under section 13 to specify any action that needs to be taken by the system operator or settlement institution (as the case may be) within a specified period.

15.3 Under section 14, the MA may by notice in writing given to the system operator or settlement institution of a designated system impose any amendment to the operating rules of the designated system needed to bring the rules into compliance with section 7(1)(b). Before imposing the amendments, the MA will have to consult the Financial Secretary and the system operator or settlement institution concerned. If there is failure to

adopt the required amendment(s) into the operating rules, the MA may by gazette notice declare that the operating rules of such designated system is to be amended in the manner as required, and the operating rules is, as from the time of publication of such gazette notice, to have effect as if they had been so amended.

15.4 It should be noted that although the MA has an oversight role on designated systems, the primary responsibility for day-to-day operational aspects of any designated system rests with its system operator and settlement institution. The MA, in carrying out his oversight activities, does not get involved in the daily operations of designated systems, except to the extent that the MA is himself operationally involved as a participant or as a provider of a particular service to a designated system, in which case the MA's involvement will be only as a participant or service provider (as the case may be).

15.5 Furthermore, the MA does not oversee the relations between the participants in a designated system and their respective customers. It is the responsibility of the system operator and settlement institution of a designated system to deal with the participants of the system.

CPSS's 10 Core Principles for Systemically Important Payment Systems and CPSS-IOSCO's 19 Recommendations for Securities Settlement Systems

- A. CPSS's 10 Core Principles for Systemically Important Payment Systems**
- I. The system should have a well-founded legal basis under all relevant jurisdictions.
 - II. The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.
 - III. The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.
 - IV.* The system should provide prompt and final settlement on the day of value, preferably during the day and at a minimum at the end of the day.
 - V.* A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation.
 - VI. Assets used for settlement should preferably be a claim on the central bank; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.
 - VII. The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.
 - VIII. The system should provide a means of making payments which is practical for its users and efficient for the economy.
 - IX. The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.
 - X. The system's governance arrangements should be effective, accountable, and transparent.

**Systems should seek to exceed the minima included in these two Core Principles*

B. CPSS-IOSCO's 19 Recommendations for Securities Settlement Systems

Legal risk

1. Legal framework

Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdictions.

Pre-settlement risk

2. Trade confirmation

Confirmation of trades between direct market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.

3. Settlement cycles

Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be evaluated.

4. Central counterparties (CCPs)

The benefits and costs of a CCP should be evaluated. Where such a mechanism is introduced, the CCP should rigorously control the risks it assumes.

5. Securities lending

Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.

Settlement risk

6. Central securities depositories (CSDs)

Securities should be immobilised or dematerialised and transferred by book entry in CSDs to the greatest extent possible.

7. Delivery versus payment (DVP)

CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.

8. Timing of settlement finality

Final settlement should occur no later than the end of the settlement day. Intraday or real-time finality should be provided where necessary to reduce risks.

9. CSD risk controls to address participants' failures to settle

CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.

10. Cash settlement assets

Assets used to settle the ultimate payment obligations arising from securities transactions should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.

Operational risk

11. Operational reliability

Sources of operational risk arising in the clearing and settlement process should be identified and minimised through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and backup facilities should be established to allow for timely recovery of operations and completion of the settlement process.

Custody risk

12. Protection of customers' securities

Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.

Other issues

13. Governance

Governance arrangements for CSDs and CCPs should be designed to fulfil public interest requirements and to promote the objectives of owners and users.

14. Access

CSDs and CCPs should have objective and publicly disclosed criteria for participation that permit fair and open access.

15. Efficiency

While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.

16. Communication procedures and standards

Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.

17. Transparency

CSDs and CCPs should provide market participants with sufficient information for them to identify and evaluate accurately the risks and costs associated with using the CSD or CCP services.

18. Regulation and oversight

Securities settlement systems should be subject to transparent and effective regulation and oversight. Central banks and securities regulators should co-operate with each other and with other relevant authorities.

19. Risks in cross-border links

CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlements.

26 November 2004

A handwritten signature in black ink, appearing to read 'Peter PANG Sing-tong', enclosed within a large, loopy oval shape.

Peter PANG Sing-tong
for *Monetary Authority*