

**PAYMENT SYSTEMS AND STORED VALUE FACILITIES  
ORDINANCE**

**Oversight Framework for Designated Clearing and Settlement  
Systems**

**A Guideline issued by the Monetary Authority  
under Section 54(1)(a)**

**Purpose**

To explain the oversight requirements, including the safety and efficiency requirements, under sections 7 and 8 of the Payment Systems and Stored Value Facilities Ordinance (Cap. 584) (“PSSVFO”) and the process that the Monetary Authority (“MA”) intends to follow in his oversight of the clearing and settlement systems (“CSSs”) designated under the PSSVFO.

**Classification**

A statutory guideline issued by the MA under the PSSVFO, section 54(1)(a)

**Previous guidelines superseded**

This supersedes the version dated 28 March 2013 issued under the Clearing and Settlement Systems Ordinance.

**Application**

To all designated CSSs under the PSSVFO.

**Date**

20 May 2016

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## **INTRODUCTION**

### **1. Background**

- 1.1 The effective functioning of CSSs, which allows transfer orders 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 MA<sup>1</sup> is responsible for designating and overseeing important CSSs with a view to promoting the general safety and efficiency of their operations. The statutory regime for such designation and oversight is set out in the PSSVFO, which came into operation on 13 November 2015. The designation regime under the PSSVFO is further elaborated in the “Explanatory Note on Designation and Issuance of Certificate of Finality of Clearing and Settlement Systems under the Payment Systems and Stored Value Facilities Ordinance”<sup>2</sup> (the “Explanatory Note”). By monitoring the compliance of designated CSSs with their obligations stipulated in the PSSVFO, the MA aims to protect the monetary and financial systems in Hong Kong from possible destabilising effects arising from disruption to the functioning of any of those systems.

### **2. Purpose**

- 2.1 This Guideline is issued under section 54(1)(a) of the PSSVFO. 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 of the PSSVFO and the process that the MA intends to follow in his oversight of designated CSSs. Sections 7(4) and 7(5) of the PSSVFO provide that in the event of a contravention under section 7(1) or 7(3) of the PSSVFO as regards a designated CSS, every system operator or

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<sup>1</sup> 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.

<sup>2</sup> Available on the Hong Kong Monetary Authority website: [www.hkma.gov.hk](http://www.hkma.gov.hk)

settlement institution of the system commits an offence and is liable to a fine.

- 2.2 The MA will issue a certificate of finality in respect of a designated CSS if he is satisfied that ultimate settlement of transfer orders is effected within the system itself and that the requirements under section 7(1) of the PSSVFO are complied with. The MA may suspend or revoke a certificate of finality in respect of a designated CSS if he is of the opinion that any of the issuance criteria is no longer met or the designated CSS contravenes certain provisions of the PSSVFO. 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 to the obligations of designated CSSs set out in the PSSVFO. System operators, settlement institutions and participants of designated CSSs are advised to familiarise themselves with all the obligations stipulated in the PSSVFO. Reference should also be made to the Explanatory Note. For the avoidance of doubt, this Guideline does not apply to designated retail payment systems (“RPS”) under the PSSVFO.
- 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 PSSVFO.

### **3. Terminology**

- 3.1 Terms used in this Guideline have the following meanings<sup>3</sup>:
  - (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;

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<sup>3</sup> The meanings are the same as the definitions of those terms under section 2 of the PSSVFO.

- (b) “designated clearing and settlement system” means a clearing and settlement system designated under section 4(1);
- (c) “operating rules”, in relation to a clearing and settlement system, means the rules or terms that govern the operation, use or functioning 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, if applicable, for extending credit to the participants and the central counterparty for settlement purposes; and
- (f) “system operator”, in relation to a clearing and settlement system, means a person who, for the purposes of the system’s operating rules, is responsible for the operation of the clearing or settlement functions of the system.

## **POLICY FRAMEWORK**

### **4. Oversight Standards**

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

### **5. International Principles**

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- 5.1 The Committee on Payments and Market Infrastructures of the Bank for International Settlements (“CPMI”) and the International Organization of Securities Commissions (the “IOSCO”) published a joint report “Principles for Financial Market Infrastructures” (the “PFMI”)<sup>4</sup> 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 are the latest international standards designed to ensure such FMIs supporting the global financial markets are robust and thus well placed to withstand financial shocks.
- 5.2 The MA regards all CSSs designated under the PSSVFO, each being a CSS whose proper functioning is material to the monetary or financial stability of Hong Kong or to the functioning of Hong Kong as an international financial centre, as systemically important and thus meet the definition of FMIs. In general, the MA expects all designated CSSs to comply with the PFMI where applicable. The MA has therefore issued a separate guideline “*Application of Principles for Financial Market Infrastructures to Designated Clearing and Settlement Systems*” to set out how the PFMI will be applied in the oversight of the designated CSSs under the PSSVFO. This Guideline should be read in conjunction with the Guideline “*Application of Principles for Financial Market Infrastructures to Designated Clearing and Settlement Systems*”. The MA will take into account the observance of the PFMI requirements in determining whether the settlement institution and/or system operator of a designated CSS has complied with the statutory obligations under the PSSVFO.

## **OVERSIGHT REQUIREMENTS**

### **6. Introduction**

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<sup>4</sup> The joint report is available on the BIS website: <http://www.bis.org/publ/cpps101a.pdf>

- 6.1 Under section 7(1)(a) of the PSSVFO, every system operator and settlement institution of a designated CSS 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, at a minimum, the oversight requirements, where applicable.
- 6.2 In general, every system operator and settlement institution of a designated CSS should have proper governance arrangements that are clear and transparent and promote safe and efficient operations of the system; and should provide sufficient information to enable participants to have an accurate understanding of the risks and costs they incur by participating in the system.

## **7. Safety Requirements**

### **7.1 *Certainty as to what constitutes settlement***

7.1.1 Under section 8(1)(a) of the PSSVFO, the operating rules of a designated CSS 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 (see also the requirements on operating rules in paragraph 9 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.

### **7.2 *Reliability and robustness of operations***

- 7.2.1. Every system operator and settlement institution of a designated CSS should ensure that the system has adequate capacity to process expected volumes of transfer orders, including at peak times or on peak days. They should regularly monitor and test the actual capacity and performance of the systems, and plan for changes of volumes or business patterns, so that the required levels of transfer order throughput are maintained. The system operator should also regularly conduct system capacity stress testing to verify whether the system can handle abnormally huge volumes of transfer orders under extreme circumstances.
- 7.2.2 Every designated CSS should have in place a clearly and fully documented business continuity plan (“BCP”) to ensure the timely recovery of its operations in the event of a contingency. This requires the system operator and settlement institution of a designated CSS:
- (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 key elements:
    - (i) clearly stated objectives (including recovery time and recovery point) and 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 timely and effective communication strategies to consult 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 disruption to the operations of the system at the primary site and would allow the secondary site to take over the operations at the primary site if needed;
  - (c) to require its participants and service and utility providers (where applicable) to have appropriate complementary arrangements in the case of a contingency;
  - (d) to undertake testing of its business recovery arrangements regularly. Tests should address scenarios that simulate wide-scale 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
  - (e) to conduct regular reviews of the adequacy of these arrangements and make such modifications as are necessary.

7.2.3 In case there is a need for outsourcing arrangements for certain areas of the operations of a designated CSS, operational reliability, information integrity, security procedures and the BCP should extend to the outsourced areas, processes and personnel. As outsourcing arrangements differ from case to case, the system operator and settlement institution of any designated CSS which intends to outsource certain areas of the system's 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.

7.2.4 Even when any operations or process of a designated CSS is outsourced, the system operator and settlement institution of the system remain responsible for the operations and processes to ensure that the requirements under the PSSVFO are being complied with.

7.2.5 The MA expects there to be well-trained and competent personnel engaged in respect of every designated CSS to ensure the safe and reliable operation of the system. The personnel should possess levels of knowledge and experience appropriate 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.

### **7.3 *Access control over the system***

7.3.1 Under section 8(1)(c) of the PSSVFO, every system operator and settlement institution of a designated CSS should ensure the safety of the system by controlling access to the operations of the system. Such controls should be secure and robust, with security reviewed and tested periodically.

### **7.4 *Information integrity and access control***

7.4.1 The integrity of, and access control over, the information held within a designated CSS is considered a key safety requirement under section 8(1)(d) of the PSSVFO. Correct and complete processing of transfer orders 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) mechanisms for storage and avoiding leakage to third parties;
- (c) mechanisms to ensure that only authorised persons are allowed to have access to the information held in the system; and
- (d) mechanisms to minimise human input error.

## 7.5 *Risk management and control procedures*

7.5.1 The operating rules and procedures of a designated CSS play a key role in enabling participants to have an accurate understanding of the risks of participating in the system. To ensure that the operations of a designated CSS are reliable and robust as specified in section 8(1)(b) of the PSSVFO, 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.

7.5.2 Every system operator and settlement institution of a designated CSS should have a sound risk-management framework that enables them to identify, measure, monitor, and manage risks that arise in or are borne by the system. The risk-management framework should be subject to periodic review.

7.5.3 Every system operator and settlement institution of a designated CSS should endeavour to manage and minimise the risks described in the PFMI and incorporated in the Guideline “*Application of Principles for Financial Market Infrastructures to Designated Clearing and Settlement Systems*” that may undermine the

reliability and robustness of the operations of a designated CSS if the risks are not properly managed.

## **7.6 *Soundness of system***

7.6.1 Every designated CSS should have robust management and control systems to identify, monitor and manage its general business risks. Section 7(1)(d) of the PSSVFO requires every designated CSS to have available financial resources appropriate for the proper performance of the system's particular functions. When assessing whether a designated CSS 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 into account 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.

## **7.7 *Services provided by the associated infrastructure***

7.7.1 The operational reliability of a designated CSS may be dependent on the continuous and adequate functioning of services provided by the infrastructure associated with the system. The system operator and settlement institution of a designated CSS are expected to identify, monitor and manage the risks arising from their use of the services provided by the associated infrastructure. It should be noted that the policy intention is to exclude basic utilities (such as electricity<sup>5</sup>) from the classification of infrastructure here.

## **7.8 *Prescribed safety criteria***

7.8.1 New international standards on the oversight of CSSs may emerge from time to time. The technology platform and communication standards of the CSSs may also change over time. The MA may prescribe further guidelines to promote the safety of the designated CSSs if necessary.

## **8. Efficiency Requirements**

8.1 In general, a designated CSS's efficiency depends on its clearing and settlement arrangements, operating structure, and use of technology and communication procedures. A designated CSS should be designed and operated to meet the needs of its participants and the markets it serves. The system's technical arrangements should be sufficiently flexible to respond to changing demand and new technologies. The system operator and settlement institution should bear in mind that the designated CSS's efficiency 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. In promoting system efficiency, the system operator and settlement institution of a designated CSS should consider the practicality and costs for the system's 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 relevant service agreements. The MA will assess a designated CSS's compliance with the efficiency requirements set under the PSSVFO, taking into account the considerations above and based on factors such as users' feedback, in particular, through industry associations, and the performance benchmark, if applicable, of comparable local or overseas systems.

### **8.2 *Speed and efficiency of operations***

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<sup>5</sup> Nevertheless, designated CSSs are reminded that electricity supply and other basic utilities should be covered by business continuity planning.

8.2.1 Under section 8(2)(a) of the PSSVFO, every system operator and settlement institution of a designated CSS 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 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 can be maintained;
- (b) in addition to the efficient running of the information technology system, the system operator and settlement institution, as appropriate, 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 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.

### 8.3 *Cost of participation*

8.3.1 Under section 8(2)(b) of the PSSVFO, every system operator and settlement institution of a designated CSS 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.

8.3.2 Generally speaking, the cost of participation comprises three components:

- (a) system service fees and charges – which can be affected by the processing costs of the system;

- (b) participants' internal processing costs – which are external to the system but can be influenced by the system design; and
- (c) liquidity costs to participants – which are indirect costs of participation.

8.3.3 The internal processing costs of participants in a designated CSS may include the costs of preparing instructions capable to be accepted by the system, transmitting and receiving system 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.

8.3.4 The liquidity costs to participants, as indirect costs of participation, include the amount of cash or other financial instruments that a participant must provide to the system in order to process its transfer orders, and the opportunity cost of providing such assets. Liquidity costs 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.

8.3.5 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.

#### 8.4 *Admission criteria*

8.4.1 Every settlement institution of a designated CSS should ensure that access to the system is non-discriminatory as unreasonable barriers to entry could reduce usage, which in turn may increase the average processing cost per transfer orders and potentially increase each participant's share of cost, thereby affecting efficiency.

8.4.2 Section 8(2)(c) of the PSSVFO provides that the criteria for admission as a participant in any designated CSS should be reasonable. The criteria for admission should be objective, risk-based and publicly disclosed, permitting fair and open access to the system's services by direct participants and, where relevant, indirect participants and other FMIs. The criteria should also be justified in terms of the safety and efficiency of the system and the markets it serves. Prudential standards such as the financial standing of a participant should be adopted to ensure system integrity. Subject to maintaining acceptable risk control standards, the system should endeavour to set requirements that have minimum restrictive impact on access that circumstances permit. The system should monitor participants' compliance with its participation requirements on a continuing basis and have procedures for facilitating the suspension or orderly exit of a participant that breaches, or no longer meets, the participation requirements.

#### 8.5 *No measures unfairly limiting competition*

8.5.1 Section 8(2)(d) of the PSSVFO 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 designated CSS.

### **9. Requirements on Operating Rules**

9.1 The operating rules of a CSS, if properly designed and maintained, help ensure safe and efficient operation of the system. Under section 7(1)(b) of the PSSVFO, a designated CSS is required to have in place operating rules that comply with the requirements in section 7(2) of the PSSVFO and with any prescribed requirements relating to the operating rules of a designated CSS and provide for the designated CSS to be operated in accordance with the PSSVFO as it applies in relation to that designated CSS. Section 7(2)(a) of the PSSVFO also provides that those rules must impose on participants



requirements that are no less stringent than the requirements imposed on participants under the other provisions of the PSSVFO. Specifically, the MA expects the operating rules of every designated CSS to satisfy the requirements below.

## 9.2 *Design of the rules*

9.2.1 The operating rules of a designated CSS should be clear, understandable, comprehensive, up-to-date and available to all participants. They should have a well-founded legal basis consistent with relevant laws and regulations, be enforceable in relevant jurisdictions, and provide a high degree of certainty for each material aspect of the system's activities. There should be a high degree of certainty that actions taken by the system under such operating rules will not be voided, reversed or subject to stays, including with respect to the resolution regimes applicable to its participants<sup>6</sup>. The operating rules should also identify the settlement institution, outline clearly the roles of participants, the system operator and the settlement institution, and the procedures that will be followed in different circumstances (e.g., which parties are to be notified of particular events and the timetables for decision-making and notification), and if applicable, provide clearly the point at which transfer orders are irrevocable. The operating 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.

## 9.3 *Arrangements to monitor compliance with the operating rules*

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<sup>6</sup> However, rights triggered only because of entry into resolution or the exercise of resolution powers may be subject to stays. See for example Financial Stability Board (FSB), Key attributes of effective resolution regimes for financial institutions (October 2014), KA 4.2, 4.3, and Annex 5, paragraph 1.3.

- 9.3.1 Under section 7(1)(c) of the PSSVFO, every system operator and settlement institution of a designated CSS 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.
- 9.3.2 The system operator and/or settlement institution of a designated CSS should enter into contracts and other agreements as appropriate 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.
- 9.3.3 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 which has come to their attention.

#### 9.4 *Mechanisms to deal with insolvency and default of participant*

- 9.4.1 Under section 7(2)(b) and (c) of the PSSVFO, the operating rules of a designated CSS 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 PSSVFO 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.

9.4.2 The operating rules should include a requirement that when a participant becomes, or is likely to become, unable to meet his obligations for any reason, he should forthwith notify the system operator or settlement institution of the designated CSS as appropriate. In case the problem is likely to affect the normal operations of the system, the relevant system operator or settlement institution should also inform each other and the MA as soon as practicable after being notified by the concerned participant.

#### 9.5 *Arrangements to deal with situation where a system operator or a settlement institution is likely to become unable to meet its obligations under the system*

9.5.1 A CSS faces general business and operational risks. The inability of a designated CSS to continue to operate as a going concern could have systemic risk implications for its participants and the broader financial markets. The system operator and settlement institution of a designated CSS, other than those that are wholly owned or operated by the MA or a Government-related entity, should develop a viable recovery plan, approved by its board of directors and updated regularly. Every system operator and settlement institution of a designated CSS should have in place a robust BCP to ensure the timely recovery of its operations in the event of a contingency. The readiness of a recovery plan and a BCP, if applicable, should be provided in the operating rules of a designated CSS. Both the recovery plan and the BCP should be updated regularly or when situations warrant and submitted to the MA for review on a regular basis.

#### 9.6 *Changes to operating rules*

9.6.1 Section 7(3) of the PSSVFO prohibits any change to a designated CSS'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 covers, 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 transfer orders and parties affected; and
- (d) an assessment of the prospective risks, if any, arising from the change, and measures to mitigate those risks, including testing schedule and testing results if available.

## **OVERSIGHT APPROACH**

### **10. Introduction**

10.1 The objective of the oversight approach of the MA is to provide an effective process to monitor and assess the compliance of designated CSSs with the obligations imposed under the PSSVFO, 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 CSSs with a focus on areas of high risks using a wide variety of techniques which aim at detecting problems at an early stage.

10.2 The MA will conduct an annual assessment on the compliance of every designated CSS with the minimum standards set out in this Guideline under the heading "Oversight Requirements". The oversight of designated CSSs is carried out through one or more of the following means:

- (a) off-site review and continuous monitoring;
- (b) on-site examination;
- (c) auditor's report;

- (d) meeting with the management of the system operators and settlement institutions of designated CSSs; and
- (e) co-operative oversight of cross-border designated CSSs.

## **11. Off-site review and continuous monitoring**

11.1 Off-site review and continuous monitoring form the core of the MA's oversight approach of designated CSSs.

11.2 The MA's power to request information or documents from the system operator, settlement institution or participant of a designated CSS on both regular and ad hoc bases is provided for by section 12 of the PSSVFO. According to section 12(1)(a) of the PSSVFO, the MA may, by notice in writing, request a system operator, settlement institution or participant of a designated CSS to give the MA information or documents relating to the system as may be specified in the notice. It is important for the MA to have access to timely and reliable information of a designated CSS, as the information collected will be used to measure the performance of the system against the safety and efficiency requirements under the PSSVFO.

11.3 The MA will collect information, on a monthly basis, on transfer order volumes and 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 CSS. In addition, the MA will also require the system operator and settlement institution of a designated CSS 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 institution of the system, internal or external auditor's reports on various risk areas (e.g., internal control procedures, robustness of information technology systems, contingency arrangements or any other areas specified by the MA) and a BCP. 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 CSS should provide periodic auditor's reports, 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 PSSVFO and to conduct cross-institutional or peer group analysis.

11.4 In addition to regular submission of returns, the system operator and/or settlement institution of a designated CSS should report any abnormal events and production incidents 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 as specified by the MA, explaining the cause and impact of the event, and the remedial actions taken or to be taken. The system operator or settlement institution should inform the MA as early as possible if it has difficulty in submitting the report within the specified time.

11.5 The prompt and accurate reporting of oversight information and statistics is of central importance to the effectiveness of the MA's oversight regime. Non-compliance with information requirements will be seen as a warning sign requiring close investigation by the MA. Section 12(4) of the PSSVFO provides that a person (i.e., a system operator, settlement institution or participant of a designated CSS) who fails to comply with a request made under section 12(1) of the PSSVFO commits an offence and is liable to a fine.

11.6 To preserve confidentiality, any information that comes to the MA's knowledge in the performance of any function under the PSSVFO is subject to official secrecy requirements set out in section 50 of the PSSVFO and may not be disclosed by the MA to third parties except in the circumstances set out in that section.

## **12. On-site examination**

- 12.1 On-site examination will complement the MA's off-site review and provides the MA with the opportunity to assess first hand how a designated CSS is operated, managed and controlled.
- 12.2 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, credit and liquidity risk management, settlement failure and crisis management and information technology infrastructure. The MA may also conduct meetings with the designated CSS's risk management, compliance, audit and operations staff during the examination.
- 12.3 The MA will discuss the main conclusions of the examination with the system operator and settlement institution of the designated CSS 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.
- 12.4 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.

### **13. Auditor's report**

- 13.1 To supplement off-site review and on-site examination, the MA may, under section 12B of the PSSVFO, require the system operator, settlement institution or a participant of a designated CSS to submit a report prepared by an auditor on matters that the MA may require for discharging or exercising his duties and powers under the PSSVFO. The auditor's report will assist the MA to decide whether the system is in compliance with the PSSVFO. It should be noted that the MA may only require a report under section 12B of the PSSVFO after consulting the relevant system operator, settlement institution or participant of a designated CSS.

13.2 If considered necessary, the MA may hold a tripartite meeting with the auditor and the senior management of the system operator or settlement institution (as the case may be) to discuss matters arising from the auditor's report.

#### **14. Meeting with management of system operators and settlement institutions of designated CSSs**

14.1 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 CSS. 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 any follow-up actions required.

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

#### **15. Co-operative oversight of cross-border designated CSSs**

15.1 The MA will, where appropriate, rely on co-operative oversight with the relevant supervisory authority of an overseas designated CSS to which an exemption under section 11(2) and/or (3) of the PSSVFO are granted. In this connection, the MA expects to work closely with the relevant overseas supervisory authority, in respect of the designated CSS concerned based on the following main considerations:

- (a) the MA and relevant authorities will co-operate with each other to foster efficient and effective communication and consultation in



order to support each other in fulfilling their respective mandates with respect to such designated CSS;

- (b) if an authority has identified an actual or proposed operation of a cross-border or multicurrency FMI in its jurisdiction, the authority should, as soon as it is practicable, inform other relevant authorities that may have an interest in the FMI's observance of the PFMI;
- (c) at least one authority should accept responsibility for establishing efficient and effective co-operation among all relevant authorities. In international co-operative arrangements where no other authority accepts this responsibility, the presumption is the authority or authorities with primary responsibility in the designated CSS's home jurisdiction should accept this responsibility;
- (d) at least one authority will ensure that the designated CSS is periodically assessed against the PFMI and will, in conducting these assessments, consult with other authorities that conduct the supervision or oversight of the system and for which the system is systemically important;
- (e) when assessing against the PFMI the designated CSS's payment and settlement arrangements and its related liquidity risk-management procedures in any one or more currency for which its settlements are systemically important, the authority or authorities with primary responsibility with respect to the system will consider the views of the central banks of issue of such currencies. If a central bank of issue is required under its responsibilities to conduct its own assessment of these arrangements and procedures, the central bank will consider the views of the authority or authorities with primary responsibility with respect to the system;
- (f) 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;
- (g) the authority with primary oversight will consult with other relevant authorities, giving particular attention to the designated CSS's risk management procedures;

- (h) the determination of the designated CSS's settlement and settlement failure procedures will be the joint responsibility of the central bank of issue of a currency included in the system and the authority with the primary oversight responsibility for the system; and
- (i) relevant authorities will provide advance notification, where practicable and otherwise as soon as possible thereafter, regarding proposed material regulatory changes and adverse events with respect to the designated CSS that may significantly affect another authority's regulatory, supervisory, or oversight interests.

15.2 Under section 50(4) of the PSSVFO, the MA may disclose information to an overseas supervisory authority which exercises functions similar to those of the MA under the PSSVFO, where in the opinion of the MA:

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

## **16. Follow-up actions**

16.1 When evaluating the compliance of a designated CSS with the PSSVFO, the MA may make recommendations to the system operator and settlement institution of the system, asking them to take steps to meet the oversight requirements under the PSSVFO, 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.

16.2 If the system operator or settlement institution refuses or fails to implement any of the recommendations so as 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(1) of the PSSVFO 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. A person (i.e., a system operator or settlement institution of a designated CSS) who fails to comply with a direction under section 13(1) of the PSSVFO commits an offence and is liable to a fine.

16.3 Under section 14 of the PSSVFO, the MA may by notice in writing given to the system operator or settlement institution of a designated CSS direct that the operating rules of the designated CSS be amended in such manner as to bring the operating rules into compliance with section 7(1)(b) of the PSSVFO. Before giving such a direction, the MA shall consult the Financial Secretary and the system operator or settlement institution concerned. If there is any failure to comply with the direction under section 14(1) of the PSSVFO and to adopt the required amendment(s) into the operating rules, the MA may by Gazette notice declare that the operating rules of such designated CSS is to be amended in the manner as specified in the direction, 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.

## **17. Miscellaneous**

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

17.2 The MA does not oversee the relations between the participants in a designated CSS and their respective customers. It is the responsibility of

the system operator and settlement institution of a designated CSS to identify, monitor and manage those risks arising from the relationship between the system and its participants.

20 May 2016

The Monetary Authority