

DISCLOSURE FRAMEWORK FOR SECURITIES SETTLEMENT SYSTEM

I. Basic information

A. *What is the name of the SSS?*

Hong Kong Securities Clearing Company Limited (herein referred to as "Hongkong Clearing").

B. *Where and in which time zone is the SSS located?*

Hong Kong, from 1 July 1997 would be a Special Administrative Region of the Peoples Republic of China. Hong Kong is located in the time zone GMT + 8 hours.

The principal address of Hongkong Clearing is 12/F., Chinachem Exchange Square, No.1 Hoi Wan Street, Quarry Bay, Hong Kong.

C. *What functions does the SSS perform?*

Hongkong Clearing provides:

- (i) electronic book-entry central securities clearing and settlement services;
- (ii) central securities depository, custody and nominee services; and
- (iii) share registration services for Hong Kong listed securities.

1. *Does the SSS serve as a securities depository and/or provide securities settlement services?*

Hongkong Clearing serves as a securities depository and provides securities settlement services.

(a) *What types of instrument are eligible for deposit at the SSS (e.g. debt, equities, warrants, etc.)?*

Registered shares, stocks, registered and bearer debt securities, and registered warrants.

(b) *What types of instrument are eligible for transfer within the SSS?*

Registered shares, stocks, registered and bearer debt securities, and registered warrants.

(c) *Please describe whether eligible securities are dematerialised, immobilised or transferred physically.*

All eligible securities are immobilised.

(d) *Does the SSS provide safekeeping for physical certificates?*

Yes, physical certificates are kept in a vault operated by Hongkong Clearing.

2. *Does the SSS provide cash accounts and/or provide funds transfers in conjunction with securities transfers? If so, in what currencies?*

Hongkong Clearing does not provide cash accounts for participants. Participants maintain a HK\$ current account with a designated bank approved by Hongkong Clearing. Hongkong Clearing's system facilitates money settlement in HK\$. Hongkong Clearing issues electronic direct debit instructions (DDIs) to effect payments from participants to Hongkong Clearing's bank account and issue electronic direct credit instructions (DCIs), to effect payments to participants from Hongkong Clearing. Hongkong Clearing also issue electronic payment instructions (EPIs) to effect payments directly between participants without funds passing through Hongkong Clearing's bank account. DDIs, DCIs and EPIs are detailed in a money data file transmitted on-line daily to Hongkong Clearing's banker who onward transmit the data to the clearing house of The Hong Kong Association of Banks for overnight clearing.

3. *Does the SSS provide a trade matching service? Do others provide such services for securities settled at the SSS?*

Except for settlement instructions (SIs), i.e., non-exchange trade transactions, which need to be matched before settlement may be effected, Hongkong Clearing does not provide a trade matching service. The Stock Exchange of Hong Kong Limited (the Stock Exchange) operates the Automatic Order Matching and Execution System and matched trade data are electronically transmitted from the Stock Exchange to Hongkong Clearing for settlement.

4. *Does the SSS provide a trade netting service (as distinct from undertaking the settlement of securities transfers on a net basis)?*

Hongkong Clearing effects trade netting for all trades effected on the Stock Exchange which are submitted to Hongkong Clearing for settlement under the continuous net settlement system (CNS).

Do others provide such services for securities settled at the SSS? In either case, What types of netting (bilateral or multilateral), if any, are performed?

The netting performed for CNS settlement is bilateral. The CCASS system provides daily netting and cross-day netting of trades in the same security of a participant which are subject to CNS settlement with Hongkong Clearing as the settlement counter-party.

5. *Does the SSS offer a securities lending or borrowing programme?*

Hongkong Clearing does not currently provide a securities borrowing and lending service, and is currently studying the logistics to provide securities lending and borrowing as a new service in the future.

6. *Does the SSS provide custodial and/or related services such as the collection of interest, dividends, principal or withholding tax reclamations? Which types of service are provided?*

Custodial and nominee services, including collection and distribution of dividends and bonus issues, proxy voting, warrant conversion, takeover offers coupon clipping and income collection, collection of principal and electronic transmission of corporate information summary are provided. There is currently no withholding tax on dividends and interests levied in Hong Kong.

7. *Does the SSS act as a central counterparty or principal to transactions with its participants?*

Hongkong Clearing acts as principal to transaction with its participants in relation to settlement of Stock Exchange trades which are subject to CNS settlement.

8. *Other? Please specify*

No other functions in relation to deposit and settlement are performed by Hongkong Clearing.

D. *What type of organisation is the SSS?*

Hongkong Clearing is a private-sector entity, i.e., an unlisted company, limited by guarantee incorporated in Hong Kong under the Companies Ordinance.

1. *Please indicate whether the SSS is a public sector or private sector entity.*

Hongkong Clearing is a private-sector entity, i.e., an unlisted company.

2. *Please indicate whether the SSS is organised on a for-profit or a non-profit basis.*

Hongkong Clearing a non-profit distributing company under its constitution.

3. *What is the legal basis for the establishment of the SSS and for securities transfers made through it?*

Hongkong Clearing is a recognised clearing house under the Securities and Futures (Clearing Houses) Ordinance, Cap.68, and is currently the only clearing house authorized to provide a central clearing and settlement services for transactions effected on the Stock Exchange.

E. Please describe and provide a diagram outlining the organisational and ownership structure of the SSS.

1. *Who are the owners of the SSS?*

Hongkong Clearing is 50% owned and controlled by The Stock Exchange of Hong Kong and 10% owned and controlled by each of the five leading banks in Hong Kong, namely, Hongkong & Shanghai Banking Corporation, Standard Chartered Bank, Hang Seng Bank, Bank of East Asia and The Bank of China.

2. *What entity or entities operate the SSS?*

Hongkong Clearing operates its own system.

Which functions of the SSS, if any, are outsourced to third parties?

Hong Kong does not outsource any of its functions.

3. *Does the SSS have a Board of Directors?*

Yes. The Board of Hongkong Clearing comprises 22 directors.

- (a) *What is its composition?*

The Stock Exchange appoint not more than 10 directors and the five bank members each appoint one director. The Chief Executives of The Stock Exchange and Hongkong Clearing are ex-officio directors. The Financial Secretary of Hong Kong appoints up to five directors. With the exception of the Chief Executive of Hongkong Clearing, who is an ex-officio director, all the other directors are non-executive directors.

- (b) *What are its responsibilities?*

The Board's responsibilities include:-

- to determine Hongkong Clearing's corporate policy and strategy for execution by the executive management;

- to guide and monitor the management of the company, assisted by committees consisting of members of the Board, namely, Executive Committee, Finance Committee, Risk Management Committee and Disciplinary Committee, ;
- to ensure compliance with the corporate constitution and relevant legislation;
- to promote the objects of the company as stated in its constitutional documents; and
- to advance the mission of the company in reducing risk and cost and improving efficiency in the Hong Kong securities market in relation to securities processing.

F. *Please describe the financial resources of the SSS*

The financial resources include, the guarantee provide by its corporate members, retained earnings, collateral provided by broker participants in cash and bank guarantees, participants' admission fees, broker participants' contribution to the Guarantee Fund, replenishment to the Guarantee Fund by broker participants, insurance policies and loan facilities granted to Hongkong Clearing by its six members.

1. Amount of paid-in capital and retained earnings?

Amount of paid-in capital is nil. Retained earnings for the year ended 30 June 1996 is HK\$14,772,000.

2. Guarantees, insurance coverage or other similar arrangements?

Hongkong Clearing is a company guaranteed by its 6 members in the amount of HK\$50 million. Hongkong Clearing has in place a comprehensive crime (staff infidelity, defective securities, forged transfer, computer crimes and professional indemnity) and Directors and Officers Liability insurance programme with cover ranging between HK\$200 million to over HK\$2 billion. In addition, Hongkong Clearing has insurance cover to protect against other risks, such as fire and business interruption.

The Guarantee Fund contributed by broker participants is to provide resources to enable Hongkong Clearing to discharge the obligations and liabilities of defaulting broker participants arising from their Stock Exchange trades accepted for settlement under the CNS system and to cover the risk of defective securities deposited into CCASS which have been 'guaranteed' by Hongkong Clearing under the General Rules of CCASS (the CCASS Rules).

Under the CCASS Rules, Hongkong Clearing has prescribed that the initial minimum contribution to the Guarantee Fund by broker participants shall be

\$100 million. Each broker participant will contribute to the fund in proportion to its turnover market share subject to a minimum amount of \$50,000 in cash for each 'A' share of the Stock Exchange held by the broker participant with the balance in cash or in the form of bank guarantees or in such other form as is acceptable to Hongkong Clearing. Hongkong Clearing will utilise the interest income generated from the minimum cash contributions to arrange insurance cover and such other arrangements to top up the contributed fund.

Additional resources to the Guarantee Fund are as follows:-

- (i) Hongkong Clearing has secured HK\$100 million insurance cover with a self-insured excess of \$100 million and additional top-up insurance cover of HK\$58 million; and
- (ii) Hongkong Clearing has contributed HK\$100 million in cash to the Guarantee Fund. These contributions are interest free and will be utilised only after exhaustion of the minimum contribution to the Guarantee Fund from broker participants and the secured insurance cover.

3. *Credit lines or letters of credit?*

By agreements, The Stock Exchange and each of the five bank members have agreed to grant loan facilities to Hongkong Clearing subject to repayment in full by 30 June 2002.

The maximum aggregate loan facilities available to Hongkong Clearing during the current and futures years are as follows:-

| | HK\$Million |
|-------------------------------|-------------|
| during 30.6.1996 to 29.6.1997 | 255.0 |
| during 30.6.1997 to 29.6.1998 | 225.0 |
| during 30.6.1998 to 29.6.1999 | 195.0 |
| during 30.6.1999 to 29.6.2000 | 165.0 |
| during 30.6.2000 to 29.6.2001 | 135.0 |
| during 30.6.2001 to 29.6.2002 | 105.0 |
| at or after 30.6.2002 | nil |

This loan facility has not to date been called upon.

4. *Powers to assess participants or equity holders?*

Under the rules issued to participants, the CCASS Rules, every participant shall pay an admission fee to Hongkong Clearing. The admission fee for broker participants is HK\$50,000 for every 'A' share of the Stock Exchange held by the participant. The admission fee for custodian and clearing agency participants is HK\$1,000,000 and for stock pledges participants the fee is

HK\$200,000. The admission fees are non-interest bearing and may be refunded by Hongkong Clearing upon the expiry of seven years from the date of admission of the participant or upon the termination of the participant's participation in CCASS, whichever is later.

G. *Please describe whether the SSS or its operator is subject to authorization, supervision or oversight by an external authority.*

Hongkong Clearing is subject to regulation by the Hong Kong Securities and Futures Commission ("Commission") and has been authorized to be the central clearing house for the settlement of trades effected on the Stock Exchange through being designated a "recognized clearing house" under the Securities and Futures (Clearing Houses) Ordinance. This legislation provides that a recognised clearing house's rules and memorandum and articles of association, and any charges thereto, are to be approved by the Commission. The Commission is also empowered to issue restriction notices and/or suspension orders relating to the operations of Hongkong Clearing in accordance with the provision in the Securities and Futures Commission Ordinance. Save for the above, Hongkong Clearing is a self-regulated organisation.

II. Rules and Procedures of the SSS

A. *Does the SSS maintain a complete list of the rules and procedures governing the rights and obligations of participants and the duties of the SSS?*

The CCASS Rules and Operational Procedures, as amended from time to time, issued to participants govern all rights and obligations of the participants with respect to their activities in CCASS.

Section 16 of the Securities and Futures (Clearing Houses) Ordinance provides that the participants act as principal in relation to all transactions vis a vis Hongkong Clearing, the recognized clearing house.

Hongkong Clearing also issues circulars to participants from time to time to detail, inter alia, the procedures for settlement of specific securities, corporate action participation procedures and amendments to the CCASS Rules and Operational Procedures.

1. *How can participants obtain a copy of the rules and procedures?*

Participants are provided with a copy of the CCASS Rules and Operational Procedures and the CCASS Terminal User Guide on admission. Updates to the CCASS Rules and Operational Procedures are printed annually and issued to participants. Participants are informed of amendments to the CCASS Rules and Operational Procedures immediately after the same are approved by the SFC through the issue of circulars.

2. *Does other documentation provided to participants (eg. user guides) have the same status as the rules and procedures?*

The CCASS Rules and Operational Procedures have the same status. These rules and procedures together with the Securities and Futures (Clearing Houses) Ordinance and the Participant Agreement form the basis of the regulation to which participants and the participants' activities in CCASS are subject to.

3. *Describe the process for changing rules and procedures, including any need for regulatory approval.*

- (a) *What authority is required, and how does this differ depending on the type of change involved?*

Any new rules and/or procedures forming part of the CCASS Rules and Operational Procedures have to be endorsed and approved by the Executive Committee and the Board of Hongkong Clearing before they are formally submitted to the Commission for approval pursuant to the Securities and Futures (Clearing Houses) Ordinance. Such new rules and/or rule amendments cannot come into effect until they are formally approved by the Commission.

- (b) *How are participants notified of changes in rules and procedures?*

Notices of approved amendments to the CCASS Rules and Operational Procedures are notified to participants immediately through circulars.

- (c) *Is there a procedure for participants or others to comment on proposed rule changes?*

There are no formal arrangements for participants to participate in the rules making and approval process. However participants may informally propose rules and procedures changes to Hongkong Clearing's executive management. Also, participants are sometimes consulted on proposed changes to the rules and procedures. Participants do not normally participate in the process for changing rules and procedures.

- B. *Are the rules and procedures binding on the SSS as well as its participants? Under what conditions and on whose authority can written rules and procedures be waived or suspended by the SSS?***

The CCASS Rules and Operational Procedures are binding on both Hongkong Clearing and the participants. Except as otherwise provided in the CCASS Rules and Operational Procedures, Hongkong Clearing may not waive or suspend the application of any rule.

III. Relationships with participants

A. *Please describe the types of membership offered by the SSS.*

(1) *How do the types differ?*

Currently, there are five (5) categories of CCASS participants, namely broker participant, clearing agency participant, custodian participant, stock lender participant and stock pledgee participant. As provided in Rule 302 of the CCASS Rules, Hongkong Clearing is empowered to establish from time to time further categories of participant with such rights and obligations as it may prescribe. Specific admission criteria and requirements for the existing categories of participants are detailed in Rule 303 of the CCASS Rules are summarised in the attached **Appendix**.

(2) *Within each membership category, are all participants subject to the same rules and procedures? Please describe important exceptions, including both differences in rules across participants and the rationale for these differences.*

As stipulated in the standard Participant Agreements for the respective categories of participant, all participants are subject to the provisions of the CCASS Rules and Operational Procedures in so far as they relate to the specific category of participants. Certain provisions of the CCASS Rules and Operational Procedures may only be applicable to a specific category of participants. For example, all participants except broker participants have no access to the clearing and settlement services under the CNS system for trades effected on the Stock Exchange (see Rule 901 of the CCASS Rules and Section 1.3 (iii) of the Operational Procedures). Stock pledgee participants have no right to deposit eligible securities into CCASS and may only withdraw eligible securities from CCASS to enforce its rights under stock pledging transaction in CCASS in the event of default by a participant. Under the CCASS Rules only broker participants are required to contribute to the Guarantee Fund and/or replenish the same. There are other examples which are too numerous to detail herein.

B. *Can participants establish accounts for their customers' assets that are segregated from their own asset accounts at the SSS?*

(1) *If so, is this accomplished through a single omnibus customer account or through a multiplicity of accounts and/or sub-accounts?*

Rule 601 of the CCASS Rules provides that Hongkong Clearing shall allocate to each participant (i) one stock clearing account; and (ii) subject to its approval, such number of stock segregated accounts as Hongkong Clearing may in its absolute discretion determine from time to time. Participant may

hold customers' shares in a single omnibus stock segregated account or in separate stock segregated accounts. This is a matter entirely for the participant. Both under the CCASS Rules and under provisions contained in the Securities and Futures (Clearing Houses) Ordinance, all participants transactions in CCASS are deemed principal transactions and all deposits of securities in the CCASS depository are deemed to be principal securities. Hongkong Clearing does not recognize the interests of any third party in securities deposited in CCASS.

- (2) *Is the segregation optional or compulsory?*
Under the CCASS Rules, the segregation of stock is optional. However, under the securities legislation, brokers and licensed dealers are required to segregate client/customer securities for principal securities.
- (3) *Does the fact that a sub-account at the SSS bears the name of a third party give any rights to that third party as a participant under the rules of the system?*

Rule 402 of the CCASS Rules provides that so far as the rights and liabilities of participant are concerned, a participant using any of the services of CCASS shall be treated as acting as principal, and not as agent, and shall be liable to Hongkong Clearing as such. In rendering its services, Hongkong Clearing is under no obligation to recognize any right or interest which any person other than a participant may have or claim to have in relation to all matters concerning CCASS (including, without limitation, eligible securities deposited into CCASS and transactions to be settled thereunder) and the operation thereof by Hongkong Clearing. All sub-accounts in CCASS are allocated to participants and do not bear third party names.

C. *Please describe participant requirements for each type of membership.*

- (1) *Are participants required to be domiciled or resident in a particular jurisdiction?*

Except for broker participants, there is no such requirement for the other four categories of participant. Rule 303 of the CCASS Rules provides that all broker participants must be members of the Stock Exchange (refer to **Appendix**). The Rules of the Stock Exchange ("Exchange Rules") stipulates that:-

- a. an Individual Member must be born in Hong Kong or ordinarily reside in Hong Kong for 5 out of 7 years immediately preceding his application unless he is otherwise authorised by the Securities and Futures Commission ("Commission") under Article 11 of the Stock Exchange's Articles of Association. Article 11 states that the Commission may, on application

made to it in writing by the Stock Exchange, authorize the Stock Exchange to admit to membership an individual who is not qualified under Rule 301(4), i.e. a rule which incorporates the provisions of Article 11(c); and

b. a Corporate Member must be a corporation limited by shares incorporated in Hong Kong (see Exchange Rule 302(3)).

2. *Are participants required to be subject to a supervisory regime? If so, please describe.*

Yes. As stipulated in Rule 303 of the CCASS Rules and summarised in the **Appendix**, namely :-

a. In addition to being subject to the CCASS Rules, broker participants are subject to the Exchange Rules and regulation by the Stock Exchange. Broker participants like all licensed/registered dealers are subject to the registration requirements and regulatory regime of the Commission;

b. Clearing agency participants must be bodies recognised and regulated in Hong Kong by the Commission or other similar regulatory organisation or, in an overseas jurisdiction by a governmental body or securities regulatory agency or an equivalent authority in respect of its business in operating a central securities clearing and settlement system and/or a central securities depository system or similar systems;

c. Custodian participants must be authorised institutions under the Banking Ordinance or subject to regulation under the Trustee Ordinance of Hong Kong; and

d. Stock pledgee participants must be either authorised institutions under the Banking Ordinance or licensed money lenders under the Money Lenders Ordinance of Hong Kong.

3. *Are participants required to hold an equity stake in the SSS?*

No, participants are not required to hold an equity stake in Hongkong Clearing.

4. *Are there financial, economic, personal or other requirements (e.g. minimum capital requirements, "fit and proper" tests)? If so, please describe.*

1. Financial Requirement

In general, all participants must be of good financial standing while there are specific capital requirements for broker and custodian participants. For broker participants, the requirements are detailed in the Exchange Rules the relevant provisions of which stipulate that:-

- a. an Individual Member must have a liquid capital of not less than the higher of:-
 - i. HK\$500,000;
 - ii. an amount which is equal to 5% of his total liabilities

and at all times comply with the other Financial Resources Rules ("FRR") requirements made under section 28 of the Securities and Futures Commission Ordinance ("SFC Ordinance") and in the Exchange Rules (Rule 301(6)); and

- b. a Corporate Member must have a liquid capital of not less than the higher of:-
 - i. HK\$3,000,000;
 - ii. an amount which is equal to 5% of its total liabilities

and at all times comply with the other FRR requirements made under section 28 of the SFC Ordinance and in the Exchange Rules [Rule 302(7)]; and

have an issued and fully paid-up ordinary share capital of not less than HK\$5,000,000 (Exchange Rule 302(7A)).

Regarding custodian participants, Rule 303 of the CCASS Rules provides that for participants who are authorised institutions under the Banking Ordinance, they should have an issued and paid up net capital of not less than HK\$100,000,000 (or such other amount as may be specified by Hongkong Clearing from time to time). As for participants who are trust companies registered under the Trustee Ordinance, section 77(2) of the ordinance provides that they should have an issued and paid-up share capital of HK\$3,000,000.

2. Economic Requirement

No formal requirement although Hongkong Clearing vets the financial reports of all applicants. Broker participant applicants and custodian participant applicants have to satisfy the FRR requirements and the capital requirements under the Banking Ordinance/Trustee Ordinance, respectively.

3. Personal Requirement

There are no formal requirements, however, all broker participants are subject to the fit and proper criteria as laid down in section 23 of the Securities and Futures Commission Ordinance.

4. Other Requirements

All participants are required to have the operational and business capabilities to satisfy the requirements of CCASS and Hongkong Clearing.

D. *Does the SSS engage in oversight of its participants to ensure that their actions are in accordance with its rules and procedures? If so, please describe.*

As provided in Rule 2001 of the CCASS Rules, Hongkong Clearing may institute disciplinary proceedings against a participant in respect of an act of misconduct committed or reasonably believed to have been committed by it. An act of misconduct includes:-

- (i) a breach of the CCASS Rules or the Participant Agreement (including, without limitation, in the case of a broker participant, where the broker participant fails to comply with its obligations to Hongkong Clearing or to other broker participants (as the case may be) in relation to the due and punctual settlement under the CNS system or under the isolated trades system and matters relating thereto);
- (ii) a failure to comply with any conditions or requirements for its continued participation in CCASS as are from time to time imposed by Hongkong Clearing;
- (iii) a failure to comply with any decision, requirement, condition or direction of Hongkong Clearing having binding effect;
- (iv) a failure to co-operate with Hongkong Clearing in matters relating to CCASS, whether or not relating to the participant, which materially affects the interests of Hongkong Clearing or other participants;
- (v) errors, delays or other conduct detrimental to the operations of CCASS or conduct which in Hongkong Clearing's opinion is detrimental to the interests or reputation of Hongkong Clearing or other participants; and
- (vi) provision to Hongkong Clearing of information (including information for the purpose of becoming a participant) which is false, misleading or inaccurate in a material particular.

According to Rule 2008 of the CCASS Rules, Hongkong Clearing may impose summary fines and penalties for breach of the CCASS Rules by a participant. For example, late submission of annual reports by non-broker participants and late payment of amounts due to Hongkong Clearing are subject to summary penalties and fines.

E. *Under what conditions can participants terminate their membership in the SSS? Does this mark the end of all liabilities of the participant? If not, please describe what liabilities could remain.*

Rule 2203 of the CCASS Rules provides that subject as otherwise provided, any participant other than a clearing agency participant may by the giving of not less than one month's notice in writing to Hongkong Clearing terminate its participation in CCASS. A clearing agency participant may terminate its participation in CCASS by giving Hongkong Clearing such period of notice in writing as agreed between Hongkong Clearing and the clearing agency participant.

However, according to Rule 2204 of the CCASS Rules, the termination of participation in CCASS of a participant will not affect any rights or liabilities of the participant arising out of matters which have taken place before its termination. For settlement of any such rights or liabilities, Hongkong Clearing may continue to treat the terminated participant as a participant.

Hongkong Clearing also has the right under the CCASS Rules to immediately terminate a participant's participation in CCASS.

F. *Under what conditions can the SSS terminate a participant's membership in the SSS?*

Rule 2201 of the CCASS Rules provides that HKSCC may at any time by the giving of not less than ten (10) days' notice in writing terminate the participation in CCASS of a participant other than a clearing agency participant. With respect to a clearing agency participant, the period of notice for termination by Hongkong Clearing to be given shall be such period as agreed between Hongkong Clearing and the clearing agency participant.

In addition, Rule 2202 of the CCASS Rules stipulates that without prejudice to any other rights Hongkong Clearing may have and notwithstanding anything to the contrary in the CCASS Rules, Hongkong Clearing may terminate the participation in CCASS of a participant forthwith by notice:-

- (i) in the event of the death, incapacity of a participant being an individual or the dissolution of a participant being a partnership;
- (ii) in the event that a participant ceases its business or a material part thereof in the determination of Hongkong Clearing;
- (iii) in the event that a participant is the subject of an adverse finding by any competent authority to which it is subject;
- (iv) in the event of the bankruptcy, liquidation or winding-up of a participant or the initiation of any proceedings in relation thereto (including, but not limited to, the commission of an act of bankruptcy or an analogous act by a participant) or if Hongkong Clearing considers in its absolute discretion that the occurrence of such events are imminent or likely;
- (v) in the event of the appointment of a receiver or manager over the assets of a participant or if a participant suffers a composition with its creditors or if a

scheme of arrangement is approved by the court (other than for the purposes of reconstruction or amalgamation) or if Hongkong Clearing considers in its absolute discretion that the occurrence of such events are imminent or likely;

- (vi) in the event of any distress, execution or other process being levied or enforced or served upon or against any property of a participant;
- (vii) in the event that an event of default as referred to in Rule 3701 of the CCASS Rules has occurred in respect of a broker participant, including a failure to provide or replenish its contribution to the Guarantee Fund pursuant to Rule 2508 or Rule 2509 of the CCASS Rules; or
- (viii) if Hongkong Clearing considers in its absolute discretion that any delay in the termination of the participation of a participant will be materially detrimental to the interests of CCASS or of other participants.

G. *Please describe the scope of the SSS's liability to participants, including the standard of liability (negligence, gross negligence, wilful misconduct, strict liability or other), the force majeure standard, and any limitation to the scope of liability of the SSS (e.g. indirect or consequential damages). Where are these liabilities and their limitations set out (e.g. in statute or contract)?*

Rule 2102 of the CCASS Rules provides that except as otherwise expressly provided in the CCASS Rules, in the absence of negligence, wilful misconduct or fraud on its part, Hongkong Clearing shall not be liable to any participant or to any other person with respect to any action or omission by it in connection with the operations of CCASS, the provision of services and facilities available thereunder, and all other matters as contemplated in the CCASS Rules.

Rule 2103 of the CCASS Rules provides that Hongkong Clearing shall not be liable for any action taken or for any failure, hindrance or delay in the provision of services or for any failure to give effect to or delay in giving effect to any instructions from participants with respect to any nominee, depository or other CCASS services or the performance in whole or in part of its obligations under the terms of the CCASS Rules or under any market contract if such action, failure, hindrance or delay arises out of causes beyond its control.

Such causes may include, but shall not be limited to, acts of God or the public enemy, acts of a civil or military authority, embargoes, fires, floods, explosions, accidents, labour disputes, mechanical breakdowns, computer or system failures or other failures of equipment, failures of or defects in computer or system software, unavailability of or restrictions on any communication media for whatever reason (whether or not such media is used by participants), interruptions (whether in whole or in part) of power supplies or other utility or service, any law, decree, regulation or order of any government, competent authority or any court or tribunal, and any other causes beyond Hongkong Clearing's control including, without limitation to the foregoing, any similar causes affecting the Stock Exchange (whether or not specified in the Exchange Rules).

Regarding any limitation to the scope of liability of the Hongkong Clearing, Rule 2104 of the CCASS Rules provides that except as otherwise expressly provided in the CCASS Rules, Hongkong Clearing shall have no liability for:-

- (i) a failure by a participant to comply with the CCASS Rules;
- (ii) the taking by Hongkong Clearing of action permitted or contemplated in the CCASS Rules;
- (iii) the insolvency of any appointed depositaries, Hongkong Clearing's banker, or any other sub-custodians, depositaries or other clearing entities appointed or used by Hongkong Clearing in relation to CCASS (provided that the selection by Hongkong Clearing of such persons shall not have been unreasonable);
- (iv) the acts or omissions of the designated banks or the insolvency of such persons; or
- (v) the inability of Hongkong Clearing to perform as a result of the invalidity or, cancellation of any insurance or assurances effected by Hongkong Clearing or the insolvency of such insurers or assurers (provided that the selection of such insurance, assurances or insurers by Hongkong Clearing shall not have been unreasonable at the time of selection).

IV. Relationships with other SSSs and Commercial Intermediaries

A. *Does the SSS maintain linkages (including sub-custodian or cash correspondent relationships) or other relationships with other SSSs?*

Hongkong Clearing currently has no linkage with other SSSs.

V. Securities transfers, funds transfers and linkages between transfers

A. *Please discuss whether and how settlement instructions are matched between participants prior to processing by the SSS.*

Each participant input the key information such as counterparty ID, stock code, quantity, amount etc. through their CCASS terminal.

The system will match these settlement instructions ("SI") periodically and the status of these instructions i.e. matched, unmatched with reasons will be shown to participants via their on-line enquiry through their CCASS terminal.

Participants can elect to amend their input to match with those input by their counterparty and the status of the SI will be changed accordingly. Matched SI's will then be processed subsequently.

1. *Is matching required for all transactions without exception?*

Yes, all settlement instructions have to be matched, except those trade data transmitted from the Stock Exchange or by clearing agency participants as the trade data would stipulate both delivering and receiving parties.

2. *What procedure is used when instructions do not match?*

If a settlement instruction is not matched after the matching processing cycle, either party to the settlement instruction can enquire the reason for the transaction being unmatched through their CCASS terminal. They may amend the incorrect field via maintenance function. After amendment, they can check or monitor whether the settlement instruction is still unmatched or matched via the on line enquiry function before the next matching processing cycle.

3. *Are matched settlement instructions binding on participants?*

Matched settlement instructions are binding on participants. Settlement instruction once matched would proceed to settlement. If there are any failure with respect to delivery of securities or payment of monies under the settlement instruction, the innocent party would pursue his claim against the defaulting party.

(a) *If so, please describe the consequences of failure by participants to meet obligations (e.g. forced settlement, penalties, short positions)*

Hongkong Clearing does not guarantee such transactions will be settled nor will Hongkong Clearing intercede on behalf of the non-defaulting participant. The parties to the transactions are entitled to pursue their legal remedies independently.

(b) *Please describe whether this is a feature of the SSS's rules and procedures or of national law or regulations?*

Hongkong Clearing only act as a facilitator for the settlement of settlement instructions under the CCASS Rules. The general law of Hong Kong shall apply to such contracts between the participants.

(c) *Please provide time line indicating the points at which matched instructions become binding, as well as may pre-matching process that takes place.*

There are no specific time at which settlement instructions are matched. Matching is dependent upon the input of correct mandatory details. The CCASS system automatically matches settlement instructions and participants, party to such transactions, are advised through the CCASS terminals of matched and unmatched settlement instructions. Once the participants are notified once the settlement instructions are matched.

B. *Are securities transferred within the SSS registered?*

All securities deposited into the CCASS Depository by participants are registered in the name of the Hongkong Clearing's nominee company. All transfers of securities between participants stock account within CCASS are electronic book-entry transfers.

1. Who is the registrars?

There are various registrars operating in Hong Kong serving different listed issues. The five largest being Central Registration Hong Kong Limited; Tengis Limited; HKSCC Registrars Limited, Standard Registrars Limited and Secretaries Limited.

2. Is it normal practice to register the securities in the name of the SSS (or its nominee) or in the name of beneficial owner? Are there instances in which securities housed within the SSS are registered to neither the SSS (or its nominee) nor the beneficial owner?

Yes, it is a normal practice to register securities in the name of Hongkong Clearing's nominee company once the securities are deposited into the CCASS depository and credited to the participants' stock account.

On some occasions, especially for securities close to its expiry date, Hongkong Clearing may keep such securities deposited in street name as the time for registration may be after the expiry date.

3. If the SSS offers custodial services, will it hold securities registered in the name of the beneficial owner?

No, Hongkong Clearing will register all securities held in custody in CCASS in the name of its nominee company.

4. Under what circumstances does the SSS initiate registration of securities in the buyers' name?

Hongkong Clearing will not initiate registration of securities into a buyer's name but if the buying participant wish to do so, he can withdraw the securities from CCASS and register the securities in his own name.

5. How long does the registration process typically take? Are participants notified when registration is complete?

The registration period will normally take 10 business days and the participants will be notified by the relevant share registrar of the collection date of new certificates. There are also rush registration services available to effect registration in less than 10 business days.

6. *Can securities be transferred within the SSS before registration in the buyers' name is complete? If so, do the rules and procedures of the SSS provide for an unwind or reversal of each transfers in case of bankruptcy or other events, which result in the buyers' name not being entered on the register?*

When securities are deposited into CCASS, participants are given immediate credit, and the securities may be transferred freely within CCASS. However, if the buyer wishes that the securities be registered in name of the buyer, the only alternative is for the participant to withdraw the securities from CCASS and deliver the securities to the buyer who will have to register the securities in his own name.

C. *Please describe how securities transfers are processed within the SSS?*

Securities transfers are processed by electronic book entry method within CCASS. i.e. debit the delivering quantity of securities from the stock account of delivering participants and credit the receiving quantity to the stock account of receiving participants according to the unique position number which is generated by the Hongkong Clearing automatically once a settlement position is created. The other method of transfer within CCASS is by the input of settlement instructions.

1. *Please indicate whether the transaction are processed as debits and credits to members' accounts or via some other method.*

It is processed by debits and credits to participants' stock accounts.

2. *On a continuous (real-time) basis, or in one or more batches?*

Both method are available to participant. Participants can rely on 3 designated batch settlement runs or they can initiate immediate transfer by inputting delivery instruction via the CCASS terminal for settlement on a real time basis.

3. *If continuous, during what hours does the processing occur? If in batches, at what time or times is the processing initiated and completed?*

For continuous (real time) basis, member can input delivery instructions for settlement from 10:00 a.m. to 3:45 p.m.. There are 3 batch settlement runs scheduled at 12:00 noon, 2:30 p.m. and 3:45 p.m.. Normally the processing will take 15 to 20 minutes depending on the transaction volume.

4. *Do securities settlement occur daily? Please identify securities for which settlement occurs only on specify days of the week or month.*

Securities settlement occur daily, from Monday to Friday (except for public holidays). There are no securities which can only be processed on specific days.

D. Please describe whether final funds transfers in conjunction with the SSS are made as debits and credits to balances held at the SSS, at one or more commercial banks at the central bank, or via some other method.

For final funds transfers, participants of Hongkong Clearing have to establish a HK\$ current account at a designated commercial bank and authorize Hongkong Clearing to initiate electronic instructions to debit or credit the participant' designated bank account. Book entry money record will be generated for a participant in its money ledger with respect of its money settlement and other financial obligation. At the end of each settlement day, Hongkong Clearing will issue money settlement instructions for every participants and transmit the files of these money settlement instructions to Hongkong Clearing's banker who in turn transmit these files to the clearing house of the Hong Kong Association of Banks for final funds transfer between different designated bank accounts maintained by participants.

1. *Does the SSS maintain cash accounts for its participants? Are these accounts equivalent to deposit accounts at a commercial or central bank or do they serve only as "cash memorandum" accounts?*

No, Hongkong Clearing does not maintain any cash accounts for its participants. All these accounts are just "cash memorandum" accounts.

2. *On what entity (SSS or other) does the participants bear cash deposit risk?*

Participants are exposed to cash deposit risk (bank default risk) with respect to their designated commercial bank.

3. *Under what circumstances does the SSS provide credit extensions or advances of funds to its participants and thereby expose itself to credit risk?*

Hongkong Clearing does not provide credit extensions or advance funds to participants. However, Hongkong Clearing provide credit limits to participants for collection of unfavourable pending marks. As such, Hongkong Clearing will only be exposed to market risks of the relevant unsettled securities positions but not credit risks.

4. *How long can such credit extensions last? How long do they typically last?*

Hongkong Clearing does not provide credit extensions to participants except with respect to marks collection. The credit limit for collection of unfavourable pending marks is provided on daily basis.

E. *Is the SSS a DVP system? If so, please describe the DVP model used according to the models outlined in the DVP report (see the introduction). Please also provide a diagram indicating the timing of events in the processing of securities and funds transfers in the SSS where the SSS provides more than one alternative for settlement processing. Please provides a response for each alternative and indicate the relative importance of each alternative.*

Yes, Hongkong Clearing operates on a DVP system, however, it is not a real time DVP system and the final funds transfer are processed at the end of every settlement day at present.

1. Are funds transfers and securities transfer processed within the same system or in different system? If different, how are they linked?

Final funds transfers and securities transfers are handled by different systems. The funds transfer are handled through the clearing house of Hong Kong Associations of Banks i.e., Hong Kong Interbank Clearing Limited ("HKICL") and the securities transfer are processed by Hong Kong Clearing's CCASS system. At every settlement day end, CCASS will generate electronic money settlement instructions for all participants and transmit these electronic money settlement instructions to its banker who in turn transmit these electronic money settlement instructions to HKICL for settlement.

(a) Please describe whether each securities transfer is linked to specific funds transfer or a trade by trade basis or on a net basis or via some other method.

For trades effected on the Stock Exchange and to be settled under the CNS system, settlement of securities and funds will be taken on a net basis. With respect to other Stock Exchange trades where both counterparties agreed to settle the trade on a trade by trade basis at the time of the execution of the trade the securities transfer and fund transfer will be on a trade for trade basis. Both CNS positions and trade for trade settlement transactions are settled on a DVP basis.

For settlement instructions initiated by participants, these transactions are settled on a trade by trade basis and which may be settled under different payment methods (i.e. DVP or FOP).

(b) Does the SSS "split" large transactions into multiple transactions or require participants to do so?

The Hongkong Clearing will not split large transactions into multiple transactions or request participants to split their transactions.

2. *When do securities transfers and funds transfers become final?*

Subject to the "securities-on-hold" mechanism for securities transfers, once securities have been transferred and credited to a participant's stock account, securities transfers will become final. For funds transfers, after the clearing and settlement runs processed by HKICL is completed, the funds transfers becomes final.

(a) *At what time do securities transfers become final? After what event or events?*

At the time the securities are transferred and credited into counterparties' stock account, securities transfers will become final. Securities transfer are processed by batch settlement-run automatically generated by the CCASS system or on a real time basis which for settlement instructions initiated by delivery instruction for settlement by the delivering participants.

(b) *At what time funds transfers become final? After what event or events? Does this timing allow for same-day re-transfer of funds received in exchange of securities?*

This occurs after the clearing and settlement run processed by HKICL at around 10:00 a.m. of S+1 day at which time, the funds transfers becomes final. Since the funds transfers is only completed in the morning of S+1 day, it is dependent on whether the bankers of participants will provide back to back facility to their clients for same-day re-transfer of the funds received for different purposes on S day.

(c) *If final delivery of securities precedes the final transfer of funds, can participants dispose freely of such securities prior to funds finality? If so, what actions will be taken if funds are not received?*

No, for trades executed in Stock Exchange and settled under the CNS system where Hongkong Clearing acts as counterparty, Hongkong Clearing will only lift the "securities-on-hold" once fund transfer is not rejected. For settlement instruction transactions, the payment receiving party (i.e. the delivering participant) has to pursue claims from his counterparty if payment is not effected, since the securities transfer will precede to funds transfer. The participant who receives the securities is free to dispose the securities.

(d) *If final delivery of funds precedes the final transfer of securities, can participants dispose freely of such funds prior to securities finality? If so, what actions will be taken if securities are not received?*

For CNS positions, delivery of funds will not precede the transfer of securities where Hongkong Clearing is the payment counterparty.

- (e) *Does the timing of finality differ depending on the type of security transferred or the currency in which payment is to be made? Please describe.*

There is no difference in the timing of finality for securities. The same will apply to funds and only HK dollar is the currency of settlement for the present.

3. *Please discuss whether participants are notified of securities or funds transfers while they are still provisional, only when they are final, or both.*

Participants may through on line enquiry via their CCASS terminal, enquire the status of their securities settlement status and monetary position.

F. *Does the SSS itself "guarantee" funds or securities transfers?*

Yes, only for trades executed on Stock Exchange and settled on a net basis under the CNS system will Hongkong Clearing guarantee the funds and securities transfer with respect to such CNS positions.

1. *Under what circumstances and at what point are transfers guaranteed by the SSS?*

All trades executed on Stock Exchange and settled on a net basis under the CNS system will guarantee of settlement be provided by Hongkong Clearing. The guarantee becomes effective following the issue of the final clearing statement to participants at around 2:00p.m. of T+1 day.

2. *What actions does the guarantee obligate the SSS to take?*

All trades executed on the Stock Exchange will be novated after which Hongkong Clearing will become the counterparty to each trade to be settled under the CNS system. Those trades which the transacting participants have indicated to be settled under trade by trade basis directly between themselves are not guaranteed.

3. *Please indicate whether the guarantee is a feature of the SSS's rules and procedures or of national law or regulations.*

The guarantee is a feature of Hongkong Clearing's CCASS Rules and Operation Procedures.

VI : Default Procedures

A. *Please discuss the events or circumstances that would constitute default of a participant under the rules and procedures of the SSS or that would lead the SSS to make use of exceptional settlement arrangements or unwind procedures.*

1. *Failure by a participant to meet a test of its solvency under the applicable laws of its jurisdiction?*

According to Rules 3701 (vi) to (xi) of the CCASS Rules, a broker participant is deemed to have committed an event of default in the following circumstances :

- (a) a voluntary arrangement is approved by the court for the benefit of creditors of the broker participant;
- (b) a receiver, manager or administrative receiver is appointed or a composition or scheme of arrangement is approved by the court in respect of the broker participant;
- (c) an assignment or composition is made by the broker participant for the benefit of its creditors;
- (d) a bankruptcy or winding-up order is made in respect of the participant;
- (e) Hongkong Clearing considers in its absolute discretion that the occurrence of any of the above events (a) to (d) is imminent or likely;
- (f) the broker participant, being a partnership, is dissolved; or
- (g) any distress, execution or other process is levied or enforced or served upon or against any property of a broker participant.

2. *Failure to make payments of deliveries of securities within the time specified?*

Failure to pay Hongkong Clearing within the time specified by a broker participant (in practice, save for fees on CCASS services) is an event of default under Rule 3701(iv) of the CCASS Rules.

Failure to deliver securities to Hongkong Clearing within the time specified may also constitute an event of default under Rule 3701(i) of the CCASS Rules.

3. *To the extent that the rules and procedures grant discretion in the determination of the use of default or other exceptional procedures, please discuss where the authority to exercise such discretion resides and the circumstances in which this authority would be used.*

It is embodied in Rule 3701 of the CCASS Rules that Hongkong Clearing has the absolute discretion to decide whether each of the above events of default

requires calling for default actions. The decision on whether to declare a broker participant a defaulter rests with the Risk Management Committee, a committee of the Board of Hongkong Clearing. Normally, Hongkong Clearing will only take default actions when the event of default occurs, and in the opinion of Hongkong Clearing, cannot be remedied.

B. What procedures are followed by the SSS once it has determined that a default event has occurred or that exceptional settlement arrangements are to be employed?

1. How and at what point are participants notified that this has occurred?

Once an event of default occurs and Hongkong Clearing, Hongkong Clearing exercises its discretion to declare the broker participant a defaulter, Hongkong Clearing will immediately inform the relevant broker participant and will announce to the market its decision, and identify the defaulter under CCASS Rule 3702 of the CCASS Rules. Hongkong Clearing will notify all participants right away by broadcasting a message through the CCASS terminal and to the market via the Stock Exchange's Teletext Terminal.

2. Would the SSS be expected to continue to meet all its obligations to participants under these circumstances? Please discuss the resources in place to ensure that this would occur (eg. collateral, participants' fund, insurance, loss-sharing arrangements, etc.).

Notwithstanding that Hongkong Clearing has declared a broker participant a defaulter, Hongkong Clearing will continue to fulfil the settlement obligations for those trades to be settled under the CNS system that were entered into by the defaulting broker participant and guaranteed by Hongkong Clearing.

To cover the above obligations, Hongkong Clearing can utilize, inter alia, the following resources :

- (a) the shares remaining in the CCASS stock clearing account including securities which are subject to "securities-on-hold" (i.e. securities allocated to the defaulting broker participants stock clearing account but which have not yet been paid for by the defaulting broker participant i.e., its CNS long positions);
- (b) sale proceeds remaining with Hongkong Clearing after settlement of the defaulting broker participant's short CNS positions;
- (c) all cash collateral collected from the defaulting broker participant, including cash marks;
- (d) bank guarantee furnished by the defaulting broker participant;

- (e) sale proceeds from liquidating the defaulting broker participant's securities and stock collateral (e.g. against marks payment);
- (f) the defaulting broker participant's contribution in the Guarantee Fund;
- (g) Guarantee Fund resources other than (e) as the last resort;
- (h) Guarantee fund insurance, if applicable;
- (i) Hongkong Clearing's reserves associated to the Guarantee Fund, if required.

3. *Please describe and provide a time line indicating the order in which these recourse would be used as well as the timing of participant notifications and important deadlines (eg. when the SSS's obligations to participants would be met, when participants would need to cover their loss-sharing obligations).*

There is no restriction on the order of application of the above resources. Hongkong Clearing's default procedures are backed by legislation and the procedures have to conform to the legislation (see Securities and Futures (Clearing Houses) Ordinance).

No prior notice need be given to the defaulting broker participant save that he has been declared a defaulter before applying the resources provided or obtained from it. After declaring a broker participant to be a defaulter, Hongkong Clearing will apply the above resources to settle the defaulting broker participant's outstanding obligations under CNS system as soon as possible.

4. *Please described all conditions under which provisional transfers of securities or funds could be unwound by the SSS.*

All settlements under CCASS cannot be unwound by Hongkong Clearing. However, transfers of securities and/or funds effected by error would be reversed.

5. *Can bankruptcy or insolvency be declared retrospectively in the SSS's jurisdiction (eg. under a "zero-hour" rule), and could this cause provisional securities or funds transfers to be unwound?*

Bankrupting and insolvency cannot be declared retrospectively. Hongkong's bankruptcy and insolvency laws are based on those of England and Wales. However, with respect to Hongkong Clearing, certain insolvency laws are disapplied in the event of a default of a broker participant and in respect to CNS open positions. Transactions settled under the trade-for-trade basis and settlement instructions are subject to the normal Hong Kong insolvency laws and may be challenged by the liquidator/bankruptcy official.

6. *Please describe any circumstances in which transfers of securities or funds that were defined as final in response to question V.E.2 above would ever be unwound.*

There are no such circumstances that will result in unwinding.

C. *Has a participant in the SSS ever been declared in default or become insolvent?*

1. *Have loss-sharing procedures been invoked?*

Since its operation in 1992, there had been one case in 1996 when a broker participant was declared a defaulter.

The outstanding obligations of the defaulting broker participant with respect to its CNS open/unsettled positions were fully covered after liquidating its on-hold securities and applying the cash collateral provided by it.

2. *Please describe whether any of these defaults or insolvencies resulted in losses for the SSS or its participants and how they were absorbed.*

The default referred to in 1 above resulted in no loss to Hongkong Clearing or to any CCASS participant with respect to the defaulting broker participant's open CNS settlement positions.

VII. *Securities overdrafts, securities lending and back-to-back transactions*

A. *Is it possible for debit positions (overdrafts) in securities at the SSS to arise?*

It is not possible for debit positions (overdrafts) in stock account of participants during settlement processed by Hongkong Clearing in CCASS. However, for securities deposited physically by a participant in CCASS, and if such securities are found subsequently to be defective, Hongkong Clearing will debit the depositing participant's stock account and a debit position (negative balance) may arise in the stock account of that depositing participant.

1. *Under what conditions could such debit position occur?*

Since Hongkong Clearing provide immediate credit to the participants for any deposited securities, debit positions may occur if the deposited securities are rejected by the registrar as a result of defective title and if there are insufficient quantity of such securities maintained in the stock account of that depositing participant. In such case, debit position (negative balance) will occur after a reverse entry is made by Hongkong Clearing with respect to defective securities deposit.

- (a) *Do these conditions always result in debit positions in securities account rather than failed transactions? If not, please explain the basis for different treatment by the SSS.*

Depends, this situation may result. Deposits of defective securities may result in debit positions and/or failed transactions.

- (b) *Are these situations covered explicitly by the rules and procedures of the SSS?*

Yes, participants have to cover their debit position (negative balance) by depositing good title securities. Otherwise a cash collateral to cover the debit position (negative balance) will be collected by Hongkong Clearing.

2. *How long can such debit positions last? How long do they typically last?*

Normally the debit position (negative balance) will only last for 1 day after which the deficit balance has to be remedied by the participant. If participant has to obtain the necessary securities from the open market, then the deficit position may take at least 2 days to be remedied.

3. *How are debit positions in securities accounts prevented, rectified or managed?*

If no immediate credit is granted for deposited securities, then debit position (negative balance) will not arise. Debit position cannot be effectively prevented because of the grant of immediate credit by Hongkong Clearing and the laws relating to rectification of registration of the register of members. To rectify debit positions, participants have to deposit good securities into his stock accounts to cover the debit position (negative balance), otherwise cash collateral of 130% market value of the securities will be collected by Hongkong Clearing.

4. *What procedure would be followed by the SSS in case the debit cannot be rectified? (e.g. failure by a participant with a debit balance in a securities account or unavailability of the securities in the market)*

If participants failed to rectify their debit positions, Hongkong Clearing will execute a buy-in of the securities from open market on behalf of the participants to cover the debit balance. The cost will be set-off by the collateral collected from the participants. If securities are unavailable in the market, Hongkong Clearing may under its rules consider compensating participants in cash by transferring the cash collateral of the defaulting participant to the relevant participants .

(a) *Application of loss-sharing provisions allocating the loss to participants?*

Loss may subsequently be covered from the Guarantee Funds contributed by broker participants if a broker participant maintained a debit balance, or it may be recovered from insurance coverage.

(b) *Absorption of the loss by the SSS?*

No.

(c) *Other, please specify.*

Hongkong Clearing may consider compensating the affected participants by providing the cash equivalent of the open market value of the securities.

B. *Under what circumstances does the SSS provide for the lending of securities to ensure settlements?*

No securities lending service is provided by Hongkong Clearing. Hongkong Clearing is currently examining the need to provide a centralized stock lending and borrowing service to its participants.

C. *How does the SSS settle back to back transactions?*

The feature of settlement instructions is used to facilitate settlement of back to back transactions.

1. *Under what conditions are delivering instructions by participants receiving and redelivering securities on the same day under back to back transactions settled for same-day value?*

Settlement instructions by participants receiving and redelivering securities on the same day under back to back transactions, are only settled the same day for value if the participant in question has securities in his securities stock account no later than the final securities transfer in the settlement cycle.

(a) *Only if the participant has securities on deposit with the SSS that have been received pursuant to a final securities transfers?*

Yes, only if the participant has the securities on deposit, i.e., credited to his stock account.

(b) *If the participant has securities on deposit with the SSS that have been received pursuant to a provisional securities transfer?*

No back to back transactions may be effected with respect to provisional securities transfer, i.e., if the securities are subject to the securities-on-hold mechanism. The securities-on-hold mechanism will be automatically effected if there is a debit monetary obligation due to Hongkong Clearing with respect to those securities at the time of settlement processing.

- (c) *Before securities have been received either provisionally or finally, but when a matched receipt instruction exists for the same or greater value? Is such a practice limited to markets where matching is binding?*

No settlement will be effected if insufficient securities are deposited to delivering participant's stock account.

- (d) *Before securities have been received either provisionally or finally, but when a third party has promised to deliver to the SSS securities of the same or greater value? Must the provider of the guarantee have itself received the securities through a final transfer? Please describe how the SSS evaluates such promises, and whether they are addressed by the written rules and procedures of the SSS?*

No settlement will be effected if insufficient securities is deposited in delivering participants' stock account. Hongkong Clearing will not consider and/or effect settlement of transactions according to third party's promise to deliver securities to Hongkong Clearing or to the relevant participant. No rules or procedures are in place to accommodate such conditions.

- (e) *Other? Please specify.*

Not applicable.

2. *Please describe limits or controls in place with respect to any of the above arrangements for the settlement of back to back transactions, including limits on amounts involved or related to the liquidity of the underlying securities?*

Hongkong Clearing will not effect settlement for any back to back transactions if insufficient securities are deposited in the delivering participants stock account. The only alternative for a participant to effect its delivery obligations with respect to any back to back transactions is that they may split the quantity of securities to be delivered into a number of smaller quantities using a number of settlement instructions for settlement of each quantity of securities.

3. *Under what conditions are payment instructions by participants in the SSS under back to back transactions settled for same-day value? Can participants use the proceeds of an on-delivering of securities without the need for an extension of credit?*

Normally, all payment instructions of the back to back settlement instructions will be same-day value once settlement is effected. Participants may use the proceeds of an on-delivering of securities but this will depend on the agreement of their bankers on whether extension of credit will be granted.

VIII. Risk Control Measures

A. *Please describe the roles and responsibilities of those areas of the SSS responsible for risk management and control.*

- 1. Please describe the process for the internal review of risk management policies and procedures.*

Any new risk management policies and procedures for CCASS are initiated by Hongkong Clearing's Compliance Department. Their recommendations are considered by the senior executive management and approved by the Chief Executive. These are then submitted for endorsement or approval to the Risk Management Committee (set up under the Board) and the Board.

Once implemented, the Compliance Department will continuously monitor the effectiveness of such policies and procedures and suggest changes/modifications whenever necessary. Hongkong Clearing's Internal Audit Department will also conduct an independent review of the policies and procedures from time to time.

- 2. Is there a risk management policy that addresses the review and approval of new products and services offered by the SSS? At what level of the organization is risk management approval given for a new product or service?*

Before introduction of any new product/service by Hongkong Clearing, a risk management policy for that product/service must be endorsed by the Risk Management Committee and the Board. Any new product or service that is proposed by the executive management must first be submitted to the Executive Committee (a Committee of the Board) for approval before the project may be commenced.

- 3. Does the SSS have a risk management function with clear independence from and authority over operational or marketing functions?*

Hongkong Clearing has a Compliance Department which is responsible for monitoring and controlling the risk exposure of Hongkong Clearing (save for operational risks which are monitored by the relevant operational departments). The Compliance Department is directly accountable to the Chief Executive and is not involved in the administration of routine operational services under CCASS.

4. *Does the Board of Directors review risk management policies and procedures? Does the Board have a risk management or audit committee?*

The Board will review the risk management policies and procedures endorsed by the Risk Management Committee. The Board has appointed the Risk Management Committee to oversee the Company's risk and to lay down risk management policies. The Board has also appointed the Executive Committee to act as the Audit Committee.

B. *Please describe any internal or external audits or supervisory/regulatory examinations that are performed with respect to the SSS. For each such audit or examination, please address the following questions.*

1. *Who performs the audit or examination?*

Internal Audits - Performed by the Internal Audit Department of Hongkong Clearing.

External Audits - Annual statutory audit by external auditors, KPMG Peat Marwick. The Commission also conducts a yearly operational review of the CCASS depository for approval of the depository.

2. *What is the Scope of the audit or examination?*

(a) *Please indicate whether and how it addresses the sufficiency of and compliance with internal controls.*

(b) *Please indicates whether and how it addresses the SSS's compliance with its own rules and procedures.*

Internal Audits: -

Internal Audit Department reviews covered all major operating and system areas as well as ad hoc projects and incidents occurring within the company. Based on risk assessments of the concerned areas, Internal Audit Department would ensure the adequacy and compliance of internal controls via related documentation examination, management discussion, physical observation and sample testing. Reference would be made to established internal audit policies, standards of related professional bodies, statutory regulations, CCASS Rules and Operational Procedures, and existing market practices. Any non-compliance identified would be raised and resolved with the relevant operating management.

External Audits:

The KPMG Peat Marwick audit is performed mainly for the statutory reporting purpose in accordance with generally accepted accounting principles in Hong Kong, Companies Ordinances and the Auditing Standards of the Hong Kong Society of Accountants. Major operating, accounting and system controls would be reviewed through management discussion, completion of internal controls questionnaire and compliance testing. Material improvements would be raised via management letter.

3. *What is the frequency of the audit or examination?*

Internal Audits: Recurring, depending on the materiality of risk of the concerned areas. Ad hoc reviews would also be performed when considered necessary.

External Audits: Statutory audit is performed annually while the risk management survey is done on a need basis.

4. *Are audit or examination reports available for review by participants?*

Internal Audits: Not specially targeted for participants but available for executive/operating management, audit committee and external auditors.

External Audits: Annual reports available to public and risk management report available to Hongkong Clearing's management and Board of Directors.

Supervisory/regulatory examinations

1. Performed by the Commission.
2. The Commission's supervision is mainly exercised through approval of all CCASS Rules and Operational Procedures, updates and comments on major business/operation changes and annual review of the depository operations.
3. No particular report issued is issued by the Commission. Updated CCASS Rules and Operational Procedures are made available to all participants.

C. *Please discuss whether the SSS has the capacity to value (ie., mark to market) the securities that it holds.*

1. *Please describe how these valuations are used by risk control systems at the SSS.*

CCASS has the capacity to use the latest available market price to perform marking-to-market both on a real-time basis and on a batch basis. The act of performing marking-to-market is to quantify the latest market risk brought about by the broker participants' open CNS positions for purposes of intra-day surveillance and/or marks collection.

2. *How frequently are securities revalued?*

Marking-to-market for purpose of marks collection are performed on a batch basis twice per day (intra-day at 11:00 a.m. and day-end at about 4:45 p.m.).

3. *What are the sources for security valuations?*

The mark-to-market price is always the price of the latest trade (excluding special or direct trade) captured real-time from the Stock Exchange.

D. *Please discuss whether the SSS has a lien on the securities held in or transferred through it.*

1. *Does the lien apply only to the securities owned by the participants themselves or does it extend to the securities beneficially owned by customers of participants?*

Under Rule 3604 of the CCASS Rules, until such time as Hongkong Clearing is satisfied that it has received payment in full in respect of shares allocated by Hongkong Clearing to a broker participant under the CNS system, Hongkong Clearing retains title over such allocated shares. The withholding of title applies to allocated shares whether purchased by the broker participant or for its clients. Both under law and under the CCASS Rules, all transactions and securities deposited in CCASS are deemed to be principal transactions and principal securities.

Hongkong Clearing has no lien or rights over securities credited to the segregated accounts of participants except insofar as it may debit such account if defective securities are deposited by the participant.

2. *Under what circumstances and in what manner would such a lien allow the SSS to use the securities?*

When a broker participant commits an event of default, Hongkong Clearing will be free to apply or liquidate the allocated shares to cover the outstanding obligations of the defaulting broker participant under the CNS system.

E. *Please discuss the circumstances in which the SSS requires collateral to limit or mitigate risks.*

1. *Does the SSS manage its own collateral system?*

Hongkong Clearing manages its own collateral system.

2. *Does the SSS share a collateral system with another SSS or payment system?*

Currently, there is no cross-collateralization and/or sharing of systems with other entities.

3. *Can collateral at the SSS be posted and returned on the same day?*

Systemwise, collateral can be posted and returned on the same day. The actual time of refund varies for different collateral purposes but the point in common is that collateral will only be released when the underlying risk element is no longer a concern to Hongkong Clearing.

4. *What types of transaction at the SSS involve the use of collateral?*

Collateral is required :

- (a) when the broker participant's open CNS positions give rise to unfavourable marks;
- (b) when the broker participant is found having a defective share deposit and has not yet effected share replacement before the end of the day;
- (c) when the problem broker participant trades beyond the trading cap imposed on it by Hongkong Clearing and/or the Stock Exchange (also see F1 below);
- (d) when the broker participant has not yet paid for the shares allocated to it by Hongkong Clearing under the CNS system;
- (e) when there is a substantial increase in the market share of the broker participant's turnover during the monthly review; and
- (f) as a contribution to the Guarantee Fund to cover possible liquidation risk and defective securities risk of broker participants under the CNS system.

5. *What are the policies with regard to the type of collateral used or haircuts required?*

For the purposes set out in E4, collateral with respect to (a) to (c) is currently collected in the form of cash only, for (d) this must be collateralized by the shares allocated by Hongkong Clearing while collateral of (e) and (f) can be a combination of cash and/or bank guarantee.

The discount ratio applied to the valuation of stock collateral of (d) is the same for all stocks and is currently 10%.

Hongkong Clearing plans to accept stock collateral in lieu of cash for (a) by the end of 1997.

6. *How are collateral valuation methodologies developed and reviewed?*

Any valuation method for collateral must provide for sufficient cushion against the possible drop in market value of the collateral. The haircut ratio may be increased if the stock becomes more volatile than expected.

7. *To what extent are collateral policies described in the written rules and procedures of the SSS?*

The collateral policy are set out in the CCASS Rules.

F. *Please describe the SSS's use of limits on exposures to monitor or control risks.*

1. *Please explain the types of limit used and the exposures to which they apply.*

For a problem broker participant who defaults in payment or appears to have financial problem, Hongkong Clearing will impose a trading cap to control the turnover of the participant within the comfort level of Hongkong Clearing. The trading cap will only be removed when the participant proves to the satisfaction of Hongkong Clearing that it can effectively monitor its payment obligation and has sufficient financial resources to cope with the delay or default in settlement by its clients.

Besides, as a control against bank default risk, Hongkong Clearing maintains a concentration limit for each bank. This bank concentration limit need to be referred to when accepting collateral from participant in the form of bank guarantee or when bank deposits are made by Hongkong Clearing.

2. *Do the limits apply to all participants and/or to other SSSs with which the SSS is linked? What are the exceptions to the limits?*

The trading cap is only applied to problem broker participants. The bank concentration limit is applicable to the bank guarantee submitted by any broker participant.

3. *Do limits apply to participants individually or in the aggregate or both?*

The trading cap is applied to broker participants individually. The bank concentration limit is applied against the participants' bank guarantees on an aggregate basis.

4. *Do limits apply to implicit as well as explicit extensions or credit or securities (eg., when on-deliveries of securities are permitted pursuant to provisional but not final delivery of securities)?*

There are no extension of credit or securities.

5. *Does the SSS automatically reject transactions that exceed limits or is compliance determined ex post?*

Transactions which exceed trading cap will not be automatically be rejected by Hongkong Clearing. However, transactions exceeding the bank concentration limit will not be processed further by the system.

6. *How are limit policies developed and reviewed?*

Limit policies are developed whenever there are no other effective measures to contain Hongkong Clearing's risk exposure arising from a given entity. The effectiveness of the policies will be reviewed from time to time by the Compliance Department.

7. *To what extent are limit policies described in the written rules and procedures of the SSS? Where does additional authority to set or amend limit policies reside?*

To maintain flexibility in the setting of limits, limit policies are not expressly set out in CCASS Rules or Operational Procedures.

G. *Please describe other controls to mitigate or reduce risks at the SSS.*

1. *Does the SSS or its participants have the capacity to monitor participants' accounts continuously during processing?*

A participant's accounts under CCASS can be monitored continuously by both internal management of Hongkong Clearing and the respective participant.

2. *Is there a special risk control regime that the SSS would apply to a participants known to be experiencing financial difficulties?*

Additional risk management measures will likely be imposed on a participant known to be experiencing financial difficulties. Hongkong Clearing has in built into functions to put in place special risk management actions such as suppression of the participant's right to make physical deposit into CCASS.

3. *Does the SSS maintain or administer loss-sharing arrangements other than those applicable to events of default and addressed in Section VI above? Are these loss-sharing pools pre-funded by participants?*

Hongkong Clearing does not maintain loss-sharing arrangements other than those described in section VI.

IX. Operational risks

A. *Please provide assessments of the operational reliability of the computer and other systems used by the SSS, including any criteria that the SSS uses internally for this purpose.*

The CCASS system has proved very reliable in its 5 years of operation. The central site hardware, including the mainframe computer and the disk subsystem, has not failed during the entire period. CCASS itself is also very, very reliable, maintaining an uptime in excess of 99.99% in the past twelve months.

Hongkong Clearing does not have availability targets for incidents affecting only a few participants or of only minor impact. Such incidents are infrequent and are tracked and reported on a daily and weekly basis, to ensure they are not systematic.

Hongkong Clearing internally targets to have 99.7% availability for more serious incidents. This target has been met for each of the past twelve months.

1. What is the percentage uptime of the systems used by the SSS?

(a) Whole system overall?

99.99% over the past twelve months.

(b) Broken down by major components? (E.g. communications network, central processing facility)

Over the past twelve months (April 96 - Mar 97):

| | |
|-----------------------------|--------|
| Central processing facility | 100% |
| Communications network | 99.99% |
| System Software | 100% |
| Application Software | 100% |

(c) During critical processing periods?

The critical processing periods are the batch settlement runs during the day, the money instruction generation to the bank at the end of day and bank money confirmation at the start of day. Uptime during these periods had been 100% over the past twelve months.

2. Has the SSS experienced major operational problems during the past two years?

No operational problems, major or minor, has been experienced in the past two years.

(a) Have settlements been delayed, been disrupted or otherwise failed because of operational problems during this period?

No disruption nor failure has occurred. A few delays in the past twelve months on the start time, and hence end time of such batch settlement runs. In all cases, such delays have been less than 15 minutes.

(b) *Please describe the nature of any such problems.*

Internal operational staff may request delays in starting batch settlement runs, due to extra time needed to manually process exceptionally high transaction volume. Participants occasionally, though rarely, may also request such delays, due to extra time needed to rectify significant errors they encountered in-house. Management approve such requests on a case-by-case basis, after ensuring that the overall impact or acceding to the request is not significant.

B. *Please describe contingency or disaster recovery planning at the SSS.*

Within Hongkong Clearing, contingency planning is coordinated by the Planning and Development Department. Contingency planning related specifically to the data centre is coordinated by the Information Technology Division.

The operational staff and facilities of Hongkong Clearing are situated in two separate buildings over 6 km from each other. Each can act as the business recovery centre for the other in the event of a disaster affecting either of them.

Hongkong Clearing also operates its own disaster recovery backup data centre in a third building about 7 km from the primary data centre. Transactions are electronically transmitted to the backup data centre for safekeeping throughout the day, and is used for data recovery and process resumption in the event of a disaster occurring and/or affecting the primary centre.

1. *Does the SSS have a formal plan for business continuity in place?*

Yes, a formal plan is in place.

2. *Is this plan available for review by participants?*

No, the plan is not available for review by participants.

3. *How often is this plan tested? Does this involve participants in the SSS?*

The data centre disaster recovery plan is tested twice a year. The business recovery plan is tested once a year. Both do not involve participants.

4. *What are the major elements of the business continuity plan?*

The disaster recovery procedure for business details various scenarios and how each service department would continue to provide its service under each scenario. The procedure also specifies the Disaster Recovery Committee to be formed in such an event and its role.

The disaster recovery procedure for data centre details the various actions to be performed in the event of a disaster striking the data centre, including disaster declaration and notification, staff arrangement, and detailed procedures for the recovery of processing at the backup data centre.

5. *How long would it take the SSS to resume operations if primary systems become unusable?*

The resumption of operations would be within 4 hours. Hongkong Clearing plans to reduce this to within 2 hours during 1997.

C. *What are the key features of the internal controls covering operations and security at the SSS (e.g. change controls or those covering remote access)?*

There is an Operations Control Department within the Operations Services Division to ensure operational control issues are addressed and procedures are adhered to, both internally by Hongkong Clearing's management and staff and externally by participants. There is a Quality Assurance Section within the Information Technology Division to ensure information security issues are addressed and security administration are performed. A Security Officer heads a Security Administration Committee to oversee and review information systems security policies, standards, and implementation.

All generally accepted systems control and security principles, such as segregation of duties, complete audit trails, maker-checker authorization, a prior change approval, etc. are adhered to. All external communications are encrypted, as are internal communications on LAN. Security control, including authentication and access control, are implemented at various levels, including the CCASS terminal, the network, the system as well as the application level.

1. *Please describe controls or security procedures in place to ensure that the SSS acts only on authentic settlement instructions from valid participants.*

Hongkong Clearing operates a closed network with its participants using a Closed User Group facility of the Datapak network from Hongkong Telecom. Participants can only access CCASS via pre-registered links and terminals. Participants are issued passwords and authentication tokens (diskettes) so that only valid users of a participant can access CCASS via the CCASS terminal.

Each valid participant user is pre-assigned with a capability profile, defining what functions they can perform within CCASS, and any transaction limits, etc. once they log on to CCASS and are authenticated. Authentication tokens

normally can only be used within the CCASS terminals of a participant and not at other locations.

All lines are encrypted using the DES/RSA algorithm. All participant user id and password usage are regularly checked to ensure that they are proper and current. The above measures together ensure settlement instructions received are authentic from valid participants.

2. *Are internal operational and security controls included in the internal and/or external audits of the SSS?*

Yes.

3. *Are internal operational and security controls covered by regulatory requirements applicable to the SSS?*

No.

D. *Does the SSS impose minimum operational or performance standards on third parties)(e.g. communications providers)?*

In general, no formal service level agreements with third party vendors have been imposed.

1. *How does the SSS ensure that such standards are met on a continuing basis and what sanctions are available to the SSS if they are not?*

Hongkong Clearing deals only with reputable vendors who have an excellent track record in Hong Kong and worldwide. Informal targets on service levels are set and agreed upon on procurement. There are ongoing regular meetings with vendors in all major areas to monitor performance and trigger escalation as required. Sanctions would be in the form of complaints, termination of business relationship, and contractual liability where performance shortfall are significant.

2. *How would the SSS allocate losses incurred due to operational problems caused by third parties?*

No defined procedure nor precedent have been issued, except those that are incorporated in contractual agreements. Hongkong Clearing would reclaim losses from relevant third parties based on contractual liability.