

**DISCLOSURE FRAMEWORK FOR  
SECURITIES SETTLEMENT SYSTEMS**  
Committee on Payment and Settlement Systems  
International Organization of Securities Commissions

***I. BASIC INFORMATION***

NOTE: Information provided as at September, 1997.

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

The SSS is named The Canadian Depository for Securities Limited (CDS).

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

CDS has its head office in Toronto, Ontario, Canada with clearing centres in Montreal, Quebec; Calgary, Alberta; and Vancouver, British Columbia, and a representative office in Halifax, Nova Scotia.

Clearing and settlement services are operated within Eastern Standard Time.

***C. What functions does the SSS perform?***

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

CDS provides a full range of services associated with depository, clearing and settlement of securities.

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

Equities (listed and unlisted), debt (corporate and government), money market, warrants, rights, mortgage backed securities and stripped instruments are eligible for deposit.

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

All securities eligible within the depository are eligible for transfer within CDS.

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

Eligible securities are immobilized within the depository. There are a few dematerialized issues.

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

CDS safekeeps certificates that are immobilized however we do not provide safekeeping services per se to beneficial owners.

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

CDS tracks the movement of funds associated with securities transferred (settled) and nets funds by participant to a day end balance in both Canadian and U.S. funds.

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

CDS does not provide a trade matching service nor do others provide such services. Trades reported to CDS are agreed to by both positive and negative affirmation.

4. **Does the SSS provide a trade netting service (as distinct from undertaking the settlement of securities transfers on a net basis? Do others provide such services for securities settled at the SSS? In either case, what types of netting (bilateral or multilateral), if any, settled at the SSS? In either case, what types of netting (bilateral or multilateral), if any, are preformed?**

CDS is the exclusive provider of trade netting services for securities settled at CDS. Multilateral netting is performed for stock exchange listed trades.

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

CDS does not offer a securities lending or borrowing program.

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?**

CDS provides both custodial and related services including the collection and

disbursement of entitlements (dividends and interest), the processing of corporate actions, the provision of holders of record information and the facilitation of proxy distribution and general shareholder mailings.

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

CDS acts as the central counterparty with its participants for trade settlement of listed securities and for the netting of all payment obligations.

**8. Other? Please specify.**

CDS also provides pledge services, Securities Identification Number (ISIN) issuance, trade and ledger reconciliation services, securities information services and interdepository links.

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

CDS is a private sector business corporation under the *Canada Business Corporations Act (CBCA)*.

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

CDS is a private sector entity.

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

Neither the *CBCA* nor the articles and by-laws of CDS impose any constraints on CDS's ability to function on a for-profit basis. However, the company's policy is to price its services in such a way as to recover operating costs with adequate margins to meet cash and reserve requirements.

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

CDS is recognized as a clearing agency under s. 22 of the Ontario *Securities Act* and as a securities clearing house under s. 169 of the Quebec *Securities Act*. Recognition by securities regulators confers the benefit of substantive law provisions giving legal validity and effect to book entry transfers and pledges in those provinces (the relevant statutes being the *Business Corporations Act* (specifically s. 85) in Ontario and the *Securities Act* (specifically s. 10.2) in Quebec). The federal

government has also recently enacted legislation providing for the designation and regulation of clearing and settlement systems (i.e., the *Payment Clearing and Settlement Act (PCSA)*) which came into force on July 31, 1996.. For systems which satisfy the act=s definitional requirements, designation of a clearing and settlement system pursuant to the *PCSA* confirms the enforceability of the settlement rules governing such systems and the enforceability of actions taken pursuant to those rules. Formal designation must be conferred by the federal government; it is anticipated that the Debt Clearing System within CDS will be designated shortly under the *PCSA*.

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

Please see attached diagram.

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

CDS is owned by Canada=s six largest Canadian chartered banks, five major trust companies, and the investment dealers represented by the Toronto Stock Exchange, The Montreal Stock Exchange and the Investment Dealers Association of Canada. Each of the bank, trust and broker-dealer groups owns one third of CDS=s issued common shares.

**2. What entity or entities operate the SSS? Which functions of the SSS, if any, are outsourced to third parties?**

CDS operates the SSS directly; functions of the SSS are not outsourced to third parties. A wholly-owned subsidiary (CDS INC.) has been established to provide services which are complementary to the core securities depository and clearing services (eg. courier and information services).

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

Yes - see below.

(a) What is its composition?

The Board of Directors consists of nine shareholder directors, one management director and five independent directors.

(b) What are its responsibilities?

The Board of Directors reviews and approves: applications for CDS services, business plans and associated expenditures, domestic and foreign custodians, and prices and financing mechanisms. Individual directors have membership on the Executive Committee, Audit Committee and Finance Committee. Each committee of the Board has a formally documented mandate with specific accountabilities (see diagram).

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

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

As at December 31, 1996 (in \$Canadian):

Paid in Capital \$ 8,661,000  
Retained earnings \$20,924,000

**2. Guarantees, insurance coverage or other similar arrangements?**

**Insurance Coverage**

<u>Type</u>	<u>Limit (\$ millions Canadian)</u>		<u>Coverage</u>
Comprehensive General Liability	\$20	X	3rd party bodily injury and property damage
Financial Institution Bond (FIB)	\$100 primary	X	Loss of property on premises/in transit
		X	Fidelity
		X	Computer crime
		X	Double aggregate coverage to \$200M
Excess Securities	\$100	X	Loss of securities above FIB.
Premium Bond	\$10	X	Lost instrument bond

Directors and Officers	\$25	X	Directors and Officers Liability
Property/Business Interruption/EDP /Boiler & Machinery	\$50	X	Comprehensive property

**Reserves**

CDS has appropriated \$10 million of retained earnings to a reserve fund to supplement the Corporation's existing insurance coverage and to provide coverage for other events that may occur.

**3. Credit lines or letters of credit?**

Standby lines of credit exist to support a payment default process.

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

No powers exist to assess participants or shareholders. However, participants do contribute or pledge collateral in the form of cash, liquid government securities and letters of credit to provide assurance that payment exchange is completed each day. In addition, loss sharing credit rings exist for the clearing services to protect the SSS.

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

In Ontario CDS is regulated by the Ontario Securities Commission and is a recognized clearing agency under the Ontario *Securities Act*. In the Province of Quebec, CDS is recognized as a self-regulatory organization (SRO) under s. 174 of the Quebec *Securities Act*, and is regulated by the Commission des valeurs mobilières du Québec. Although recognition is not required in the provinces of Alberta and British Columbia, CDS liaises with these securities commissions, as well as reporting frequently to the Canadian Securities Administrators (which is the umbrella organization comprising the securities regulatory authorities of the ten provinces and two territories of Canada). CDS also cooperates with the federal and provincial Superintendents of Financial Institutions, which regulate many CDS participants, particularly banks and trust companies. In recognition of the interests of federal authorities in the operations of the national securities depository and clearing agency, CDS entered into a Federal Oversight Agreement with Canada's central bank, Bank of Canada. In addition, the federal *Payment Clearing and Settlement Act* provides for the

regulation by the Bank of Canada of systems for the clearing and settlement of payment obligations including systems for the clearing and settlement of securities transactions.

## **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?**

Yes.

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

Copies of the rules are provided to participants and are also available upon request. Copies of the procedures, and any user guides in addition to or in place of procedures, for a particular service are provided to the relevant participants; in addition, copies of all procedures and users guides are available upon request by participants.

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

Where a user guide has been issued for a particular service, it, together with the rules and procedures (and the Participant Agreement) forms part of the Legal Documents (defined term) governing the rights and obligations of participants and the nature of the relationship among participants and between participants and CDS.

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

Changes to the rules and procedures (and user guides) are subject to regulatory non-disapproval by the Bank of Canada and the Ontario and Quebec securities regulators. Proposed rule changes are first discussed and developed among participant representatives (including representatives of the Bank of Canada) and then, once a proposal has been sufficiently finalized, it is submitted to the CDS Board. If approved, the proposed changes are then formally issued to participants (in the form of a bulletin) for a 30 day comment period and are concurrently provided to regulators for their review and non-disapproval. At the conclusion of the 30 day period, the proposed changes together with any amendments resulting from the comment (and non-disapproval) period are submitted to the Board for its final approval. The Board will specify the date upon which the changes will come into effect. The participant review process for procedures (and user guides) is currently

more informal: participants are consulted on proposed changes. Copies of changes to the procedures (and user guides) are submitted to the regulators for review and deemed non-disapproval.

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

Board approval and regulatory non-disapproval are required for all proposals to change the rules. However, changes of a purely technical (drafting) nature require less explanation and discussion with regulators than do substantive changes. Board approval is not required for changes to the procedures and user guides, and regulatory non-disapproval is deemed to have been given if no objections are made by the regulators.

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

Participants are formally notified of changes to the rules by bulletins which are distributed to all participants. In advance of that stage, when rule changes are still in the process of being developed and finalized, various participant groups are involved in the process through meetings and other discussions. Notification to participants in connection with changes to the procedures and user guides is by way of the issuance of the revised procedures or user guides.

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

As discussed above, there are both formal and informal procedures for participants to comment on proposed rule changes. As well, there is an opportunity for regulators to comment in the context of the non-disapproval process.

**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 rules and procedures are binding on CDS. While the rules do in some cases provide for the waiver or variation of certain requirements or procedural steps at the Board's discretion, the rules themselves cannot be waived or suspended.



### **III. RELATIONSHIPS WITH PARTICIPANTS**

**NOTE:** CDS maintains two distinct environments for the clearing and settlement of securities transactions. These are the **Debt Clearing Service (DCS)** and the **Securities Settlement Service**. The former is presently for government of Canada securities only while the latter is for equities, corporate debt, provincial government bonds and notes and strip coupons for government and other bonds.

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

In the Debt Clearing System there are five categories of eligible participants. A participant may be classified as one of: an Extender of Credit (abbreviated as an AExtender≡), a Federated Participant, a Settlement Agent or a Receiver of Credit. The Bank of Canada constitutes a separate category in and of itself. For the Securities Settlement Service, a participant may apply to the Board to be classified as a APayment Agency≡.

#### **1. How do the types differ?**

##### Debt Clearing Service

(i) An Extender, subject to its System Operating Cap (where applicable): (a) may effect settlements; (b) may makes lines of credit available to other participants; (c) may use lines of credit established by another Extender or by an Active Federated Participant; (d) may issue payment items for the payment to CDS of entitlements and for the payment to CDS at payment exchange of its own obligations or the obligations of other participants arising from the DCS; (e) may use the book entry payment method to pay its funds account balance at payment exchange; (f) may make or receive a net payment to or from CDS, by means of the book entry payment method, in respect of other participants= funds account balances at payment exchange; and, (g) may pay CDS by delivering payment items issued by another Extender or by an Active Federated Participant.

(ii) An Active Federated Participant, subject to its System Operating Cap (where applicable): (a) may effect settlements; (b) may make lines of credit available to other participants; (c) may use lines of credit established by an Extender or by another Active Federated Participant; (d) may issue payment items for the payment to CDS of entitlements and for the payment to CDS at payment exchange of its own obligations or the obligations of other participants arising from the DCS; (e) may use the book entry payment method to pay its funds account balance at payment

exchange; (f) may make or receive a net payment to or from CDS, by means of the book entry payment method, in respect of other participants' funds account balances at payment exchange; and, (g) may pay CDS by delivering payment items issued by an Extender or by another Active Federated Participant. A Federated Participant other than an Active Federated Participant or Replacement Active Federated Participant may only make use of the DCS indirectly through its Active Federated Participant or Replacement Active Participant.

(iii) A Settlement Agent, subject to its System Operating Cap: (a) may effect settlements; (b) may not make lines of credit available to other participants; (c) may use lines of credit established by an Extender or Active Federated Participant; (d) may issue payment items for the payment to CDS of entitlements and of its own obligations to CDS at payment exchange (but may not issue payment items in respect of the obligations of other participants arising from the DCS); (e) may use the book entry payment method to pay its funds account balance at payment exchange; (f) may not make or receive a net payment to or from CDS on behalf of other participants by means of the book entry payment; and, (g) may pay CDS by delivering payment items issued by an Extender or Active Federated Participant.

(iv) A Receiver: (a) may effect settlements provided that if a settlement results in a negative funds account balance, a line of credit is used in an amount equal to that negative balance; (b) may not make lines of credit available to other participants; (c) may use lines of credit established by an Extender or Active Federated Participant; (d) may not issue payment items for payments to CDS; (e) may use the book entry payment method to pay its funds account balance at payment exchange; (f) may not make or receive a net payment to or from CDS on behalf of other participants by means of the book entry payment; and, (g) may pay CDS by delivering payment items issued by an Extender or Active Federated Participant.

(v) Bank of Canada may effect settlements and may make payment to CDS by any means acceptable to CDS without limit on the amount of settlements and payments.

#### Securities Settlement Service

A Payment Agency may, subject to its payment limit, issue cheques or bank drafts in respect of its own obligations to CDS or obligations owing to CDS by other participants. All participants other than the Bank of Canada are required to make payment by means of instruments drawn on a Payment Agency unless the participant: (a) meets the qualifications of a Payment Agency other than being a direct clearer or group clearer in the Canadian Payments Association (CPA), and its payments are secured by collateral acceptable to CDS; or, (b) unless a Payment

Agency with an unlimited Payment Limit which is an affiliate of the participant has guaranteed the participant's obligations to CDS.

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.**

Within each membership category all participants are subject to the same rules and procedures.

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

Participants are able to segregate customers assets from their own assets within their CDS ledgers.

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

For Canadian federal debt and money market instruments this is accomplished using multiplicity of accounts and sub-accounts.

For all other instruments this is accomplished through a single omnibus account.

2. **Is the segregation optional or compulsory?**

Participants are required to segregate as per their regulatory rules.

3. **Does the fact that a sub-account at the SSS bears the name of a third party give any rights to that party as a participant under the rules of the system?**

A sub-account at CDS which bears the name of a third party does not give any rights to that third party as a participant.

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

Debt Clearing Service

- (i) To be classified as an Extender a participant must satisfy the following requirements: (a) it is a financial institution; (b) it is a direct clearer or group clearer in the CPA and

accordingly has a settlement account at Bank of Canada; and, (c) it has capital of not less than \$1 billion.

(ii) To be classified as a Federated Participant a participant must satisfy the following requirements: (a) it is a financial institution; (b) it is a group clearer member of the CPA and accordingly has a settlement account at Bank of Canada, or it is an indirect clearer member and either is a member of the group for which the Active Federated Participant acts as group clearer or has appointed the Active Federated Participant as its clearing; and, its capital, when aggregated with that of the Active Federated Participant and all other Federated Participants for which the Active Federated Participant clear, is not less than \$1 billion.

(iii) To be classified as a Settlement Agent a participant must satisfy the following requirements: (a) it is a financial institution; (b) it is direct clearer or group clearer member of the CPA and accordingly has a settlement account at Bank of Canada, or it is an indirect clearer member and has a clearing account with a group clearer or direct clearer; and, it has capital of not less than \$100 million.

(iv) Participants which are not classified into one of the foregoing categories shall be classified as Receivers of Credit (Receivers).

#### Securities Settlement Service

A participant may be classified as a Payment Agency if it meets the following requirements: (a) it is a financial institution; (b) it is a direct clearer or group clearer with the CPA and accordingly has a settlement account with the Bank of Canada; (c) it is authorized to carry on business in the jurisdictions where any payment to CDS drawn on or made by it is payable; and, (d) it has capital of not less than \$200 million. Its capital shall include the capital of affiliates which are financial institutions and which have guaranteed the obligations of the Payment Agency to CDS.

**1. Are participants required to be domiciled or resident in a particular jurisdiction?**

No.

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

In DCS, Participants in the categories of Extender, Federated Participant or Settlement Agent are required to be subject to a supervisory regime since all eligible

financial institutions are subject to such a requirement. The nature of the entity, and the legislation pursuant to which it is formed will determine which regulatory body has supervisory responsibility for it. Similarly, for the Securities Settlement Service a Participant is required to be subject to a supervisory regime in order to be classified as a Payment Agency.

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

No.

**4. Are there financial, economic, personal or other requirements (eg. minimum capital requirements, Afit and proper≅ test)? If so, please describe.**

As described above, there are certain financial requirements applicable to various categories of participation in the different Services.

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

CDS does not act in any regulatory way; however, its has entered into a Memorandum of Understanding with various self-regulatory organizations (SRO) in Canada to promote co-operative information exchange and to avoid unnecessary duplication in the assessment and monitoring of the financial soundness of firms that are members of, or participants in, both CDS and the SRO. The arrangements provide for communication between CDS and the SROs at regular intervals and on a special needs basis.

In addition, CDS makes use of various recognized third party rating services and other business services to assist in assessing the financial soundness of its participants.

***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.***

A participant may withdraw from participation in a service upon providing 30 days= written notice to CDS. The liabilities and obligations of a participant to CDS and to other participants, arising from its use of any service or pursuant to the Legal Documents, survive the withdrawal of the participant.

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

The CDS Board may terminate a participant=s participation in CDS when the Board considers that adequate cause exists. The rules set out a list of events the occurrence of which constitutes adequate cause for termination. A participant will be given an opportunity to be heard by the Board before its participation is terminated. Also, at least 5 days before the meeting of the Board at which the participant=s termination is to be considered, CDS will provide the participant with written notice of the meeting and a summary of the reasons for the proposed termination.

***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 (eg. indirect or consequential damages). Where are these liabilities and their limitations set out (eg. in statute or contract)?***

A loss of securities will be borne by the affected participant or, where that is not feasible, shall be allocated among other participants using a loss sharing mechanism which depends on the type of loss. CDS will be liable for a participant loss arising from or in any way connected with a service, other than a loss of securities, except where the loss arises from certain enumerated causes (eg. the deposit of a defective security; inability to re-register a deposited security; any interruption, malfunction or disruption of any service to the extent caused or contributed to by any negligent, reckless, wilful, fraudulent or dishonest act or omission attributable to the participant; any incorrect information or documentation provided to CDS by the participant; any breach by the participant of its obligations, representations or warranties to CDS). CDS= liability is limited to the net amount recovered by CDS from its insurers or any other person in respect of the participant loss. However, the Board may elect in its discretion to allocate to the participant(s) which incurred the loss, an amount from retained earnings and contingency reserves where the net amount recovered by CDS is less than the total participant loss. In summary, for a loss other than a loss of securities, CDS is responsible for the loss, subject to limits on the scope and amount of liability; these limitations are set out in the rules.

#### ***IV. RELATIONSHIPS WITH OTHER SSS AND COMMERCIAL INTERMEDIARIES***

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

**1. Please identify each of the other SSSs used and the type of securities transferred via the linkages.**

**(a) What is the name of the other SSS? Where is it located?**

CDS maintains a linkage with:

- The Depository Trust Company (DTC), New York, N.Y., U.S.A.
- The National Securities Clearing Corporation (NSCC), New York, N.Y., U.S.A.
- Stock Clearing Corporation of Philadelphia (SCCP), Philadelphia, U.S.A.
- Philadelphia Depository Trust Company (PHILADEP), Philadelphia, U.S.A.

- SICOVAM, France
- Japan Securities Clearing Corporation, Japan

**(b) What securities are eligible for transfer via the linkage to the other SSS?**

For the Linkages with DTC, NSCC, SCCP and Philadep, any securities eligible within those organizations may be transferred by our participants via the link. These links enable CDS participants to trade with United States counter parties and clear and settle within the U.S. marketplace.

The Linkages with SICOVAM and JSCC are Custody linkages. In the case of SICOVAM, each organization (CDS and SICOVAM) hold securities on behalf of each other. In the case of JSCC, CDS holds securities on their behalf.

**(c) Are transfers of securities made via the linkage to the other SSS limited to only those that are free of payment or are transfers against payment also made via the linkage to the other SSS? If against payment, please describe the timing of the transfers and the corresponding payments.**

The DTC, NSCC and SCCP/Philadep linkages are one way linkages. Transfers of securities against payment take place within the depository and clearing systems of DTC, NSCC and SCCP/Philadep and are subject to the timing established by those organizations.

The SICOVAM and JSCC linkages are custodial only.

**(d) Does the other SSS provide custody services to the SSS and, if so, who bears any credit or custody risks?**

DTC, Philadep and SICOVAM all provide custodial services to CDS via the link and bear the custody risk.

***B. Does the SSS use securities custodians (other than the other SSSs addressed in the previous question) and/or commercial cash correspondents? Please identify the custodians or cash correspondents used and the duties that each performs.***

CDS uses the following custodians other than those indicated above and commercial cash correspondents:



- Custodians:**
- 1) Bank of Canada performs safekeeping for federal debt issues.
  - 2) Montreal Trust, Canada Trust and National Bank perform safekeeping and entitlement collection and payment functions as custodian for stripped instruments.

**Cash correspondents:** 1) Harris Bank, Chicago; Bank of Montreal and Royal Bank of Canada facilitate receipt and payment of funds on our behalf.

**C. *Please describe the standards used in approving or reviewing relationships with other SSSs, custodians, or cash correspondents, including any financial or operational requirements or the presence of insurance or public supervision.***

CDS has developed, in co-operation with its participants, a set of standards or criteria for use in evaluating prospective relationships with other organizations. These are referred to as Alinkage standards and they have been approved by the CDS Board of Directors. CDS linkage standards define several categories of service including custody, securities information exchange, trade reporting and matching, settlement of securities free of payment, settlement of securities against funds payment, sponsorship of CDS participants into another SSS. They also differentiate among types of relationships such as one way versus bilateral, direct versus indirect and omnibus versus multiple accounts.

A series of requirements must be met before a linkage is approved. The categories of requirements include:

- |                    |                        |
|--------------------|------------------------|
| a) Risk Management | e) Business Case       |
| b) Audit           | f) Data Communications |
| c) Legal           | g) Reciprocity and     |
| d) Regulatory      | h) Product Support     |

Detailed standards have been developed for each requirement. These standards address many areas including, but not limited to operations, insurance, internal controls, regulation, and financial worth.

**D. *Does the SSS advance funds or securities to or on behalf of other intermediaries such as issuing or paying agents? If so, please identify the circumstances in which such exposure could arise.***

CDS does not advance funds or securities to or on behalf of other intermediaries such as issuing or paying agents.

- E. Please describe measures in place to protect the SSS and its members against the failure of other SSSs or commercial intermediaries to meet obligations to the SSS, including risk controls, collateral or alternative sources of funds and securities.***

In addition to the standards noted in C above CDS requires participants making use of linkages to contribute collateral in the form of cash, letters of credit, and liquid Canadian federal and provincial government securities to participant funds designed to protect the users of the service from a default by any player in the relationship. All participants of a linkage service must be members of a credit ring, exclusive to that service, designed to protect CDS in the event of a loss greater than the fund. Risk is contained among the participants of a specific linkage and cannot spillover to other CDS participants who are non-users of the linkage.

***V. SECURITIES TRANSFERS, FUND TRANSFERS AND LINKAGES BETWEEN TRANSFERS***

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

- 1. Is matching required for all transactions without exception?**
- 2. What procedure is used when instructions do not match?**

CDS does not have a trade matching system.

For listed securities, trades reported to CDS are deemed to be matched unless corrected by the trade counter parties.

For all other trades, both parties must agree to the trade before being deemed to be matched and ready for settlement (positive affirmation). Trades which are not affirmed are eventually purged from the system.

- 3. Are matched settlement instructions binding on participants?**
  - (a) If so, please describe the consequences of failure by participants to meet obligations (e.g. forced settlement, penalties, short positions).**

For listed securities, failure by participants to meet their obligations may result in a forced settlement or buy-in.

**(b) Are matched settlement instructions binding on participants?**

Buy-ins are provided for by the Stock exchanges by laws and Investment Dealers Association regulations.

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

For listed securities, trades become binding on trade date plus 3 when they are entered into a continuous net settlement process.

All other trades become binding upon settlement.

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

Securities deposited with CDS are registered in CDS nominee name.

**1. Who is the registrar?**

The registrar is either the issuer or a registrar appointed by the issuer.

**2. Is it normal practice to register the securities in the name of the SSS (or its nominee) or in the name of the 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?**

It is normal practise for CDS to register all securities in custody in the nominee name of CDS.

In some instances securities are held in bearer form or registered in other than CDS nominee name (eg. Non transferable issues).

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

CDS does not hold securities registered in the name of the beneficial owner.

**4. Under what circumstances does the SSS initiate registration of securities in the**

**buyer's name?**

CDS does not initiate registration of securities in the buyers name.

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

Not applicable.

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

Not applicable.

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

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

Securities transfers are processed as debits and credits to members accounts.

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

For federal debt and money market instruments this is done on a real time continuous basis.

For all other instruments, transfers are processed in 2 batch settlement cycles.

- 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 federal debt and money market instruments, settlement can commence at 7:00 a.m. with final payment exchange taking place at 4:00 p.m. Securities-only (i.e. free) deliveries can be processed until 7:00 p.m.

For the 2 batch settlement cycles, the following timeframes apply:

**Cycle 1:**

- All settlement input must be in by 5:00 p.m.
- Payment exchange completed at 1:00 p.m.

**Cycle 2:**

- All settlement input must be in by 1:00 p.m.
- Payment exchange completed at 4:15 p.m.

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

Securities settlements occur daily. CDS operates on a trade date plus 3 rolling settlement basis.

**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.**

**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?**

For federal debt and money market instruments, cash memorandum accounts are maintained. Final payment is made using selected commercial banks who receive or pay CDS on behalf of all participants including their own accounts.

For all other instruments final payment is made by participants via certified cheques drawn on commercial links.

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

Not applicable.

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

CDS does not provide credit extensions or advances of funds to its participants.

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

Not applicable.

**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 for more than one alternative for settlement processing, please provide a response for each alternative and indicate the relative importance of each alternative.***

Debt Clearing System

The SSS is a Model 1 DVP system (defined as system which settles "transfer instructions for both securities and funds on a trade-by-trade (gross) basis, with final (unconditional) transfer of securities from the seller to the buyer (delivery) occurring at the same time as final transfer of funds from the buyer to the seller (payment)").

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

Final net settlement of the net payment obligations between the SSS and each Participant is backed by the Canadian payments system in which banks have recourse to the central bank, if necessary, for liquidity purposes.

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

As between Participants, securities and funds transfers are linked on a trade-by-trade basis: there is a simultaneous credit to the securities account and debit to the funds account of the buyer, and a debit to the securities account and credit to the funds account of the seller. Securities are irrevocably transferred to the buyer intra-day by the SSS. The buyer settles the resultant payment obligation at end-of-day as part of its net payment obligation to the SSS. There is no provision for unwinding these transactions.

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

Any splitting of transactions to facilitate settlement is done by Participants themselves on-line in real time.

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

Transfers are final when the book entries are made.

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

Transfers are final when made.

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

Transfers are final when made.

- (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?**

Final delivery of securities precedes settlement of the Participant=s net obligation to the clearing agency. Participants can freely dispose of the securities prior to settling their payment obligations at end-of-day.

- (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?**

Not applicable.

- (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 such distinction within the Debt Clearing Service on the basis of type of security.

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

Not applicable since transactions are not provisional at any stage.

### Securities Settlement System

The SSS is a combination of DVP Models 2 and 3, subject to an unwind provision; however, no transaction has been unwound in the history of the operation of the SSS. The Trade for Trade Service settles securities transfers on a gross basis while the Continuous Net Settlement Service settles securities transfers on a net basis.

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

Final net settlement of the net payment obligations between the SSS and each Participant is backed by the Canadian payments system in which banks have recourse to the central bank, if necessary, for liquidity purposes.

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

In the Trade for Trade Service (TTS) each securities transfer is linked to a specific funds transfer in a trade-for-trade basis. In the Continuous Net Settlement Service (CNS) securities are settled on a net basis and there is accordingly no link between a securities transfer and a specific funds transfer.

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

In TTS Participants may split transactions if necessary to optimize settlement. In CNS there is no need for splitting as transactions can be settled on a partial basis.

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

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

Securities transfers are final at end-of-day upon payment exchange.

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

Funds transfers are final at end-of-day upon payment exchange. In practice, this does not impose a restriction on Participants since the system does not limit their maximum funds obligation to the clearing agency.

**(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?**

Not applicable.

**(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?**

Not applicable.

**(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 such distinction drawn within either TTS or CNS on the basis of type of security.

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

The system provides notification but does not distinguish for that purpose between provisional and final transfers.

***F. Does the SSS itself Aguarantee≅funds or securities transfers?***

CDS does not expressly Aguarantee≅ transfers of funds or securities. However, once a trade has been settled, CDS is novated into the transaction between the participants and is accordingly responsible for delivering funds or securities as applicable.

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

Novation occurs upon the making of entries by CDS to effect delivery of securities and funds.

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

CDS is obligated to deliver the securities shown in a participant=s account and the participant is entitled to receive payment at payment exchange where its funds account shows a credit balance.

**3. Please indicate whether the guarantee is a feature of the SSS=s rules and**

**procedures or of national law or regulations.**

Novation of obligations is provided for in the rules.

## **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?**
- 2. Failure to make payments or deliveries of securities within the time specified?**
- 3. To the extent that the rules and procedures grant discretion in the determination of the use of default or there exceptional procedures, please discuss where the authority to exercise such discretion resides and the circumstances in which this authority would be used.**

When in its discretion CDS considers that adequate cause exists, it may suspend the right of a participant to use any service or function within a service. AAdequate cause≡ is defined in the rules of CDS as any of:

- a) failure of a participant to make any payment to CDS required by the rules within the time required by the procedures,
- b) failure by a participant to make payment of any fees or charges, provided for in the rules, after demand has been made by CDS,
- c) failure by a participant to make and maintain its contribution to a fund,
- d) failure of a participant to meet its proportionate share of a credit ring obligation within 30 days of demand by CDS,
- e) material or persistent breach of the provisions of the rules, contracts, procedures or user guides of CDS,
- f) ceasing to meet or satisfy the qualifications or standards set by the rules of CDS,
- g) determination by the Board that a participant is in such financial or operating condition that continuation as a participant will jeopardize CDS or its other participants,
- h) expulsion or suspension of a participant by a regulatory body or revocation of its licence to carry on business,
- i) permanent or temporary enjoinder, of a participant or person associated

- with a participant, by an order, judgement or decree of a court or regulatory body against continuing transactions in any security and
- j) other events, that the Board determines, in its discretion exercised reasonably, constitute adequate cause.

**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?***

Debt Clearing Service

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

Participants would be notified immediately by system broadcast in the event of payment default.

**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 (e.g. collateral, participants= fund, insurance, loss-sharing arrangements, etc.)**

Payment to CDS is made, on behalf of all participants in the system, by a limited number of large financial institutions referred to as Extenders of Credit, Settlement Agents or Federated Participants. This group guaranty payment to CDS and form a series of credit rings. In the event of a failure of a member of these groups the surviving members of the group would make good the defaulter=s payment. All transactions in the DCS are fully collateralized and in the event of a default this collateral is available to the surviving guarantors. The Central Bank will provide liquidity in a default situation should it be required.

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

Payment exchange must be completed daily before the next day=s transactions can commence.

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

No unwinding of securities is required in DCS as all settlements are completed

against payment. Delivered securities of a defaulter become collateral to the paying Extender.

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

Bankruptcy cannot be declared retrospectively.

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

Not applicable.

#### Securities Settlement Service

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

As soon as is practicable.

- 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 (e.g. collateral, participants' fund, insurance, loss-sharing arrangements, etc.).**

Yes. CDS maintains liquidity lines of credit with its banker and collateral pools (participant funds) of cash, letters of credit and liquid government securities to ensure that payment exchange for the day can be completed in the event of a payment default by a participant.

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

Resources would be used same day to complete settlement. CDS maintains a security interest in the delivered securities of a defaulting participant. These securities would be disposed of in the market as soon as possible to repay any borrowing. Residual losses would be distributed to a credit ring of all service survivors who would be asked to respond to their obligations within 30 days.

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

**a) How and on what authority would a decision to unwind securities or funds transfers be made by the SSS?**

Securities transactions may be unwound in the event that a payment obligation of a defaulter exceeds the amount of collateral (participant funds and delivered securities) available to CDS. This is provided for in the rules.

**(b) When and how would participants be notified of a decision to unwind provisional securities or funds transfers?**

Participants would be notified same day as soon as practicable by telephone or in conference.

**(c) How long would participants have to cover any debit positions in their own securities or fund accounts resulting from an unwind?**

Short position procedures require coverage same day.

**(d) In the event of an unwind, would all transfers be unwound or would only a subset of transfers (e.g. only securities purchases or only those of a subset of participants) be unwound?**

Only a subset of transactions would be unwound if required. Only those transactions of the defaulting participant that exceed the level of collateral available (funds and delivered securities).

**(e) If only a subset of transfers, what procedure would be followed to determine which transfers and in what order?**

CDS would select the least number of trades possible impacting as few participants as possible. There would be a view to mitigate the impact to avoid creating a systemic risk problem.

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

CDS has participated in the orderly wind down of a very limited number of participants in the past who have become insolvent. No participant has ever failed to make payment when required at payment exchange.

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

No.

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

No losses to CDS or its participants have occurred.

***VII. SECURITIES OVERDRAFTS, SECURITIES LENDING AND BACK-TO-BACK TRANSACTIONS***

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

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

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

Debit positions can occur only in the event of a rejected deposit.

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

These situations are covered explicitly in the rules and procedures.

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

Up to five days before CDS will buy-in the participant; however debit positions must be collateralized same day. Most debits are cleared within one day.

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

In most cases, credit to the account follows successful confirmation of the transferability of securities being deposited. Short positions are reviewed daily by operations staff (and weekly by risk management staff) and buy-ins occur as described above.

**4. What procedures 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)**

Where securities are unavailable in the market place CDS will retain collateral and monitor the situation. If a loss results for any reason, loss sharing provisions would allocate the loss to participants.

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

CDS does not provide a lending program for securities.

**1. Is the process for lending securities automatic? If not, please describe the procedures used by the SSS to determine whether a securities loan will be made.**

Not applicable.

**2. At what point are participants notified that securities are being lent to them in order to complete their settlements?**

Not applicable.

**3. Which securities on deposit at the SSS are eligible for lending? Do participants have the option to make securities available for lending or is it mandatory?**

Not applicable.

**4. Are lend securities identified by the SSS with specific participants as lenders or only with a common pool of securities available for lending? Does the participant whose securities are lent become a principal to the transaction?**

Not applicable.

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

CDS= settlement systems do not link trades. The SSS will settle a delivery in a participant=s account as long as the participant has the securities in their account to cover it, regardless of how the securities got into the account. In the batch environment, the system cycles through participants accounts forty times to try to make the delivery before the end of batch. The settlement system for government of Canada debt is a real time system that continuously checks participants accounts for sufficient security quantity and will also consider the purchasers total cash exposure to CDS, within the system, before settlement will occur. This

exposure is mitigated by deliveries of securities against payment from the participant's account and thus, will reduce usage of any lines of credit within the system.

All settlements within both systems are considered same day value.

### ***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.**

CDS has an internal committee comprised of senior management that reviews risk policy and procedures.

##### **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 organisation is risk management approval given for a new product or service?**

All new business initiatives (products) are reviewed for risk as part of the development cycle. All initiatives must be agreed to by executive management and signed-off by various areas of the company responsible for risk.

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

CDS has an independent Risk Management and Compliance department as well as Internal Audit and Information Security departments. All of these areas are independent of operational and marketing functions.

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

The Board of Directors has an Audit Committee who are responsible for ensuring that the insurance and risk management programs of the corporation are appropriate.



**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.**

Each year CDS undergoes, in addition to a statutory financial audit, an audit of the systems of internal controls supporting its principal depository and clearing services. This audit is performed in accordance with the provisions of Section 5900 of the Handbook of the Canadian Institute of Chartered Accountants.

**1. Who performs the audit or examination?**

The audit is performed by a national firm of accountants, KPMG Peat Marwick Thorne.

**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.**

This audit addresses the adequacy of the design of the control systems and their effectiveness in achieving stated control objectives. In addition the auditors perform various procedures in connection with the securities ledger balance positions recorded by CDS.

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

The external audit does not address CDS= compliance to its rules and procedures. Various internal examinations by the Internal Audit department do, however, cover this area.

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

These examinations are performed annually.

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

External Audit reports are published and generally available to all participants. The results of Internal Audit examinations are reported to the Audit Committee.

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

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

All CNS (exchange trades) are marked to market on T+2.

**2. How frequently are securities revalued?**

Securities are revalued daily.

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

Independent third party pricing sources are used for valuations.

**D. Please discuss whether the SSS has a lien on the securities held 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?**

There is no lien on securities for which the clearing corporation has been paid.

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

In the event of a payment default CDS has a lien on delivered securities for which it makes payment.

**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?**

CDS manages its own collateral system.

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

CDS provides book collateral pledging facilities to certain member participants who receive collateral from mutual CDS members for purposes outside of CDS= services.

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

Yes, provided instructions meet processing time frames.

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

CDS requires collateral pledges for participant fund contributions, short positions due to a rejected deposit and in unusual circumstances to demonstrate ability to meet financial commitments to CDS.

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

CDS requires collateral in the form of letters of credit drawn on specific financial institutions, cash, or federal or provincial government securities. Securities are subject to a haircut.

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

Collateral valuation methodologies are developed in consultation with participants and are subject to Board approval.

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

Collateral policies are described in both the rules and procedures.

**F. Please describe the SSS=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.**

Settlement activity in the DCS is subject to predetermined systems caps that limit the upper level of transactional value. There are no caps (limits) in the SSS.

**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?**

Limits apply to all participants in the DCS with the exception of the central bank (Receivers do not have a system-imposed cap since they do not have the capability of making payment to the clearing agency in respect of their transactions - instead, they are subject to the limits imposed by the Extenders which provide them with lines of credit in the DCS).

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

Limits in the DCS apply individually, but may not exceed certain aggregate amounts determined for the system.

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

There are no implicit extensions of credit.

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

Compliance with caps is dynamic within the DCS system.

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

Limits are determined based on capital formulas approved by the Board of Directors and are subject to regulatory approval.

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?**

Limit policies are described in the rules. Downward amendment of cap sizes may be performed by CDS in specific situations outlined in the rules.

## ***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.***

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

CDS= Board sets targets each year for systems performance. In 1997 the targets include online availability 99.0%, network availability 99.0%, onsite back-up 20 minutes, batch deliverables 99.4%, hot site recovery 18 hours for SSS and 10 hours for DCS. These must be maintained throughout the year in all processing periods.

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

years?

No major delays have been created by operational problems in the last two years.

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

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

Formal disaster recovery plans for CDS= data centre and business continuity plans for all its branch and head office locations exist to provide for continuity of critical business functions in the event of a major contingency.

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

The plans are reported upon by the external auditors in their annual controls audit.

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

The disaster recovery plan for the data centre is tested at least twice each year. The business continuity plan is updated twice each year and tested on a limited basis annually.

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

The business continuity documents predetermined actions to be taken to support critical business functions in the event of a disaster at a branch or head office location. It provides for resources, accommodation and management in the event of a disaster.

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

If primary systems become unusable CDS can be operable within 18 hours of a disaster for the SSS and 10 hours for the DCS.

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

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

Access control policies are established and access control software and monitoring

procedures exist, to prevent inadvertent or unauthorized access to systems, software, application programs and data. Systems functionality exists for participants to verify that instructions initiated by them have been carried out accurately.

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

The external audits of CDS= depository and clearing systems report on the effectiveness of the operational and security controls in these environments.

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

All external operational procedures of CDS must be reviewed by its regulators for non-disapproval. The design of the risk model for the DCS was subject to regulatory review and concurrence prior to the commencement of the service. The reports of the external auditors in respect of internal operational and security controls are provided to the regulators.

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

**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?**

Performance is monitored. Sanctions include escalation to senior management and in some situations movement to a competitor.

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

If operational problems resulted in financial loss to CDS= participants CDS would reimburse them to the extent of any recovery from an insurer or other third party. The details of CDS= liability are outlined in the rules.