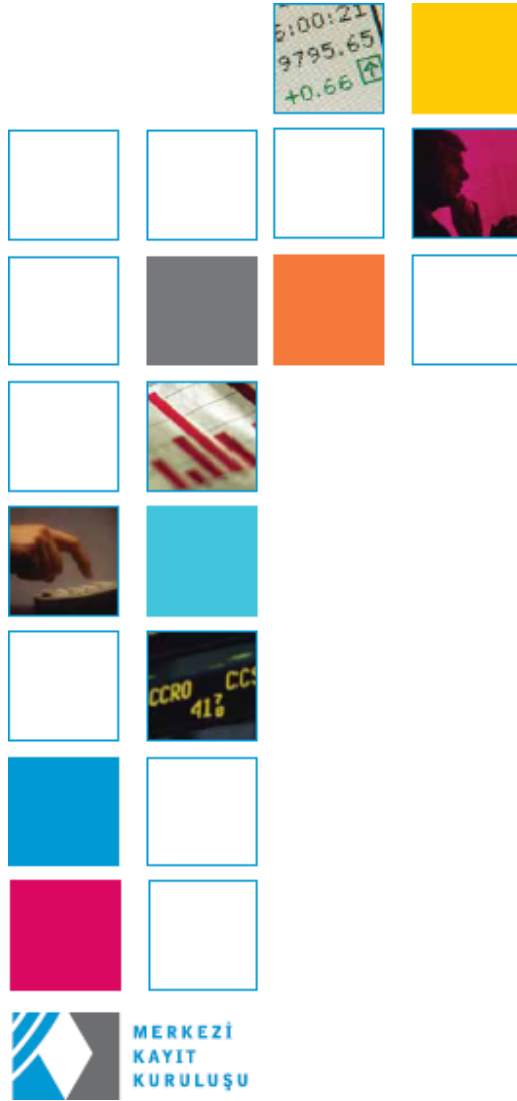


# CPSS-IOSCO Disclosure Framework 2008



Central Registry Agency Inc.

## **Disclaimer Notice**

This document was drafted as a reply to the Disclosure Framework for Securities Settlement Systems Questionnaire of the Bank of International Settlements (BIS) Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO). It provides general information on Central Registry Agency's (CRA) system, its operations, and procedures, and as such it does not have the same status as any legislative documentation concerning CRA activities.

Information in this document has been updated annually since its publication date (2006), and the latest update was carried out in June 2008. CRA does not accept responsibility for the actuality of the information stated therein with respect to any changes in rules or procedures governing its operations until the next update. For further details and verification of the information given in the Disclosure Framework, please contact CRA and related organizations or authorities in Turkey.

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## **I. BASIC INFORMATION**

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

Central Registry Agency Inc. (CRA)

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

CRA is headquartered in Istanbul, Turkey and located in GMT+02:00 time zone.

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

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

CRA acts as the central depository for all dematerialised capital market instruments in Turkey and is a provider of securities settlement services.

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

The following types of dematerialised financial instruments are eligible for deposit at CRA:

- equities
- exchange traded funds (ETFs)
- mutual fund certificates
- corporate bonds and commercial paper
- other financial instruments that are determined by Capital Markets Board (CMB) of Turkey

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

All the dematerialised instruments listed in 1(a) are eligible for transfer between participants of CRA via the in-house developed book-entry system called Central Dematerialisation System (CDS)

*c) Please describe whether eligible securities are dematerialized, immobilized or transferred physically.*

All securities held in CDS are in dematerialised form.

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

Takasbank acts as an agent on behalf of CRA for safekeeping of physical equity certificates. Securities are lodged in Takasbank with regard to the dematerialisation process of capital market instruments in Turkey. As of 2008, management rights of unlodged certificates will belong to CRA and by law any new issues must be in dematerialised form.

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

CRA does not provide cash accounts for securities transfers. CRA provides online-real time security transfers in conjunction with the Takasbank (ISE Settlement and Custody Bank Inc.) system which operates cash transfers and settlements for securities through the cash accounts that participants maintain at Takasbank. Trade settlements, delivery versus payment (DVP), collateral management and lending and borrowing facilities are conducted by Takasbank. CRA intermediates those facilities as a securities agent via proprietary messaging system.

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

CRA does not provide a trade matching service. Trade matching is done at the Istanbul Stock Exchange on a price and time priority basis. Takasbank nets validated gross contract details on an investor account basis and transmits netted trades to CRA for settlement.

**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, are performed?**

CRA does not provide a trade netting service. Trade netting is conducted by Takasbank on a multilateral basis.

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

CRA does not provide securities lending or borrowing program. It performs settlement function for the securities lending borrowing facility of Takasbank. CRA serves the facility on an on-line and real time basis.

**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?**

CRA is the authorised central depository for all dematerialised financial instruments in Turkey. All collection and distribution of interests, dividends, and principals for those financial instruments is executed by CRA. Collection and distribution of cash with respect to custodial services is conducted via Takasbank, as cash agent of CRA, depending on CRA's instructions. CRA does not provide any tax reclamation services.

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

CRA does not act as a central counterparty or principal to transactions with its participants.

**8. Other? Please specify.**

CRA provides a variety of services for securities side of transactions such as registration of investors, registration of securities issues (equities, mutual funds, and corporate bonds), corporate actions (stock splits, rights issue, dividends, blockage of equities before general assemblies), registration of legal attachments (collateral ,lien, pledge, distraint), Free of Payment Transfers (FOP), mutual fund distribution services, reporting and investor services. CRA also serves trade settlement, DVP and lending and borrowing facilities as the securities agent, and manages investor compensation scheme.

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

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

CRA is a private sector entity.

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

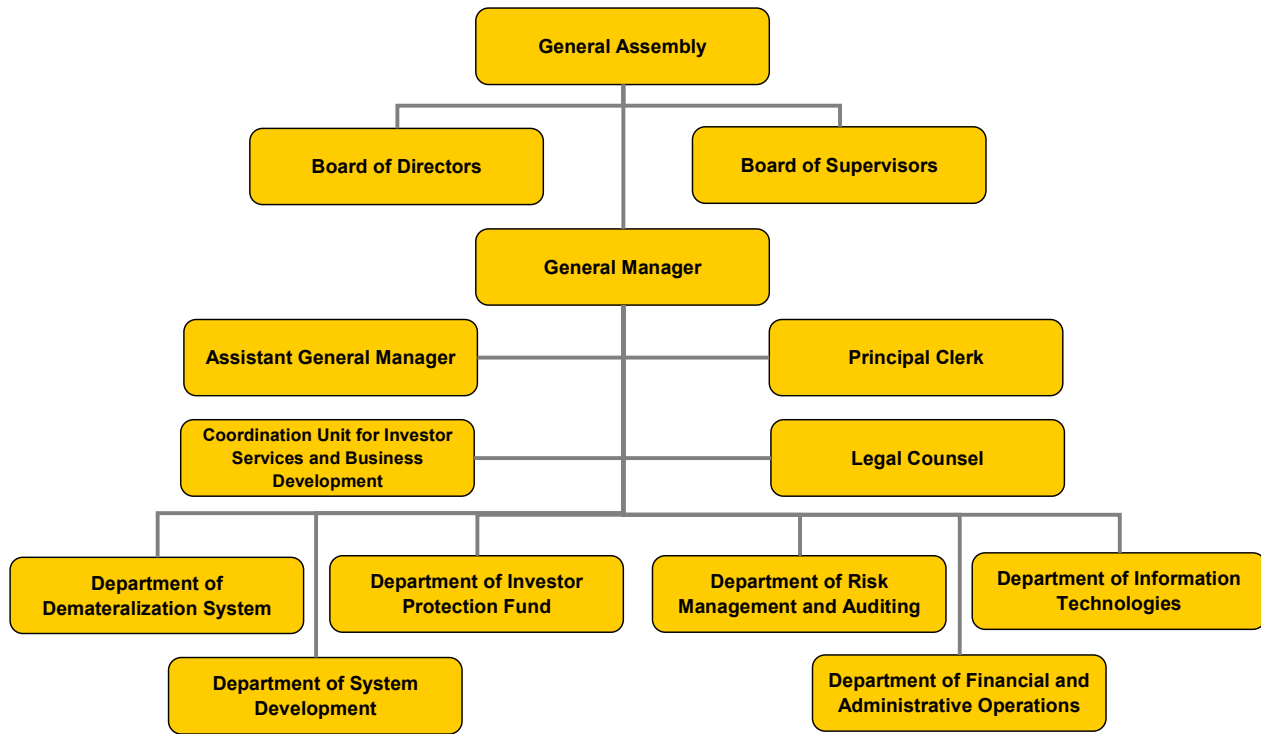
CRA is organized on a for-profit basis. However, its tariffs are subject to the approval of the regulatory authority, CMB.

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

CRA is governed under the Turkish Capital Market Law - Articles on Dematerialisation of Capital Market Instruments (Art. 10/A, Interim Provisions 6 & 7), The Regulation Concerning Incorporation, Operation and Supervision of the Central Registry Agency, Communiqués about Terms and Conditions Governing Book-entry Recording of Dematerialised Capital Market Instruments and relevant decrees of the Capital Market Law. In addition, CRA has set rules regarding its operations via Business Practices and Operational Rules Document..

All CRA legislation is accessible to public, all CRA rules and procedures are available at the CRA website ([www.mkk.com.tr](http://www.mkk.com.tr)).

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



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

CRA is a user-owned company. The majority shareholder (Takasbank) is a system participant and minority shareholders are representatives of system participants (issuers and intermediaries).

Owner	% Share
ISE Settlement and Custody Bank (Takasbank)	64,9 %
ISE (Istanbul Stock Exchange)	30 %
The Association of Capital Market Intermediary Institutions of Turkey	5 %
Istanbul Gold Exchange (IGE)	0,1 %

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



CDS is operated by CRA. Takasbank is the cash agent of CRA for corporate actions and DVP operations. In accordance with the regulations, Takasbank keeps physical certificates that are already dematerialised on behalf of CRA until their cancellation and elimination deadline.

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

Yes.

**a) What is its composition?**

CRA’s BoD is composed of one representative from CMB (Chairman of the Board), two representatives from Takasbank, two representatives from ISE, one representative from The Association of Capital Market Intermediary Institutions of Turkey and the CEO of CRA.

Entity	Number of Seats
Capital Markets Board	1 (Chairman of the Board)
Takasbank	2
ISE (Istanbul Stock Exchange)	2
The Association of Capital Market Intermediary Institution of Turkey	1
CRA (CEO)	1

**b) What are its responsibilities?**

Main responsibilities of the Board of Directors are;

- Managing CRA within the framework of its Article of Association, conducting legal processes and signing contracts on behalf of CRA, representing and binding CRA against public authorities, third parties, and judicial bodies.
- Determining tariffs and tariff collection period and asking the approval of CMB on these issues
- Determining codes and guidelines of business for profitable and efficient operations
- Determining conditions for membership, making decisions on acceptance, disassociation, temporary suspension of membership
- Establishing committees, selecting members and determining working base of those committees

- Determining authorities of the CEO

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

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

	Dec 31 2007 (1,1649 TRY/USD)		Dec 31 2006 (1,4124 TRY/USD)	
	TRY	USD	TRY	USD
Paid-in capital	6.000.000	5.150.656	6.000.000	4.248.088
Retained earnings	3.819.310	3.278.659	(1.492.060)	(1.056.400)

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

CRA does not have guarantee capital. CRA participants deliver their cash payments through Takasbank.

CRA operations are covered by multiple insurance policies but not as a form of capital backing.

CRA maintains the following insurance coverage:

- Multiple policies are pursued to cover the electronic equipment.
- Professional Indemnity Policy provides coverage for errors and omissions that can be caused by the CRA employees.
- A joint blanket insurance policy with Takasbank and Istanbul Stock Exchange covers both against crime and problems concerning custody functions.

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

CRA does not have credit lines or letters of credit with commercial banks.

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

CRA does not assess participants on any financial basis, neither does it have the power to assess its equity holders. Participants are subject to such assessment while obtaining their licences from the Capital Markets Board.

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

Capital Markets Board of Turkey (CMB) regulates the activities of CRA, and it is subject to supervision and oversight of CMB.

## **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 rules and procedures governing the rights and obligations of participants are set out in the Regulation Concerning Incorporation, Operation and Supervision of the Central Registry Agency and the communiqués about Terms and Conditions Governing Book-entry Recording of Dematerialised Capital Market Instruments. The duties of CRA are set out in Turkish Capital Market Law - Articles on Dematerialisation of Capital Market Instruments (Art. 10/A, Interim Provisions 6 & 7), and relevant decrees of the Capital Market Law. In addition, Business Practices and Operational Rules document provide a set of rules and procedures for CRA operations

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

All CRA rules and procedures are available at the CRA website ([www.mkk.com.tr](http://www.mkk.com.tr)).

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

Besides the documents stated above, user guides are available at the CRA website only to assist participants. Technical user guides, which provide end-user support, are provided upon demand, free of charge.

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

Changes in business rules and practices document is within the authority of CRA management. The related business department proposes a change to management, an announcement to participants follows management approval. Proposals to change the legislation are submitted to the Capital Markets Board.

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

If a change requires a legal amendment, the CMB authorization is required. Other changes will be made by the CRA management and/or the CRA Board of Directors.

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

Participants are notified of any changes via announcements through e-mail, fax and the CRA website.

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

Although there is not a standard procedure, the related business department and/or the management may seek participant feedback before initiating changes in rules.

***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 CRA as well as its participants. . Written rules which are directly in the legislation can only be waived or suspended by the CMB. Other written rules, which are called the business rules and practices, is within the authority of CRA..

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

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

Mainly three membership categories exist: issuers, intermediaries, and other. Membership types under those membership categories are shown in the table below. Members can be CDS users directly or can outsource their membership operations to one of the existing members.

Issuers	Intermediaries	Other
<ul style="list-style-type: none"> <li>• Stock Issuer</li> <li>Exchange-traded Fund (ETF) /</li> <li>Mutual Fund Issuer /</li> <li>• Private Debt Instrument Issuer</li> </ul>	<ul style="list-style-type: none"> <li>• Brokerage Houses</li> <li>• Banks</li> <li>• Portfolio Management Companies</li> </ul>	<ul style="list-style-type: none"> <li>• Takasbank (Clearing and Settlement Institution)</li> </ul>

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

Member types and categories differ in terms of their operations, duties, authorisations, fee structures, and staff/technology capacities.

**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 each participant is 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?***

CDS is based on a segregated investor accounts structure.

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

CML article 10/A indicates that dematerialised financial instruments must be recorded as per right owner. In CDS, participants are obliged to open segregated accounts of their own and each of their customers. Investors under a participant can have multiple accounts in CDS.

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

Segregation of investor accounts is compulsory.

**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?**

Law and rules require investors to open account in CDS via participants and to have a registry ID. Account holder (investor) bears the ownership as a right owner. This situation does not give any rights as a participant to that third party.

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

The main requirements for participants according to Article 12 of the Regulation Concerning Incorporation, Operation and Supervision of the Central Registry Agency are as follows:

- Intermediary institutions are required to hold the certificate of authorisation granted by CMB to act as an intermediary institution for trading activities or have the custody authorisation for capital market instruments.
- Issuers must have issued a capital market instrument, and capital market instruments to be issued or to be offered to public are required to be registered with the CMB.

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

, No. CRA designates terms and conditions of opening and maintenance of accounts at CRA by foreign central depository organizations. Consequently, foreign central depository organizations may establish a link with CRA, being a participant..

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

CRA participants are subject to the supervision and inspection of Capital Markets Board of Turkey (CMB).

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

Participants are not required to hold equity stake in CRA. As some of CRA participants hold equity stake in Takasbank and the Association of Capital Market Intermediary Institution of Turkey, they have equity stake in CRA indirectly.

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

Any prospective participant of CRA has to:

- Be equipped with the technical hardware and a security system with minimum specifications as designated by CRA which shall facilitate maintenance and monitoring of records, and exchange of information with other organizations.
- Obtain liability insurance whenever deemed necessary by the Board of Directors of CRA in order to indemnify damages and losses attributable to inaccurate records,
- Employ sufficient number of personnel with adequate qualifications to ensure performance and monitoring of recording formalities,
- Deposit the membership fee as determined by the board of directors of CRA, and approved by the Board,
- Bear all the other conditions as determined and approved by the Board of Directors of CRA.

Organizations meeting these conditions can make an application to CRA to obtain membership status. The application is resolved by the Board of Directors of CRA and the member is notified in written. The Board has the authority to designate the terms and conditions about the application and acceptance of membership.

***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.***

CRA monitors its participants with respect to their records in CDS. Rules and procedures are regularly controlled by embedded controls in CDS and by the CRA staff as well.

***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.***

Any participant, who wishes to resign from its membership to CRA, shall make a written application to CRA and its membership shall be terminated upon the approval of this application by the Board of Directors of CRA. The condition under which a participant may terminate its membership is not regulated, so that the participant may resign from membership upon the approval of CRA. However, the resigned participant cannot act as intermediary for the sale and purchase of dematerialised capital market instruments. If while resigning, the participant does not hold any accounts showing balance, no liabilities remain. If there are some accounts showing balance, the participant may agree with another participant with the CMB consent to operate those

accounts. If they cannot agree with any other participant, they may ask the CMB to assign one other participant. In either case, the assigned participant may ask fees to be paid for this service.

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

CRA will terminate a participant's membership if the participant no longer conforms to the membership conditions as of the membership group or acts in a manner contrary to regulations of CRA. The Board of Directors of CRA resolves suspension or termination of any membership. This resolution is put into effect with the approval of the Board

***G. Please describe the scope of the SSS's liability to participants, including the standard of liability (negligence, gross negligence, willful 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)?***

CRA is liable for the damages suffered by the participants to the extent of its fault and the liabilities of CRA against its participants is determined according to the general provisions.

#### **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?***

Yes.

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

CRA has a linkage with Takasbank.



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

Takasbank is located in Istanbul, Turkey.

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

Not applicable. Linkage with Takasbank is not used for security transfers. CRA receives instructions for settlement of securities from Takasbank and Takasbank receives instructions from CRA for settlement of cash via the linkage.

**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.**

Not applicable. See answer to question b)

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

Takasbank provides custody service to CRA for physical certificates which are delivered to be dematerialized. There is no credit risk, and Takasbank bears custody risks.

**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.**

CRA does not use other custodians. CRA uses Takasbank as a cash correspondent. All dividend, interest, and principal distributions and collections are made via Takasbank.

**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.**

A detailed Operational Protocol regarding the mutual transactions carried with Takasbank is signed. The Protocol is periodically reviewed by Takasbank and CRA and updated when it becomes necessary.

**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.**

CRA does not advance funds or securities to or on behalf of any other intermediaries.

*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.*

CRA operations are concerned with dematerialised securities and all dematerialised capital market instruments are kept in CRA. Therefore CRA does not face failure of other SSSs to meet obligations.

## **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.*

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

For on-exchange trades, multilateral netting is applied by Takasbank, therefore matching is not in question. For off-exchange transfers, Takasbank provides a matching service through SWIFT messaging, which is optional.

CRA does not provide matching services.

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

See q. V.A.1.

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

See q. V.A.1.

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

See q. V.A.1.

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

Not applicable. See q. V.A.1.

*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.*

See q.V.A.1..

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

Yes.

**1. Who is the registrar?**

Issuers are registrars for registered shares. However according to the Article 10/A of the Capital Market Law while updating issuer's registry, records at the CRA shall be taken as basis by issuers without necessity of right owners' (investors') applications.

**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 not possible to register the securities in the name of the SSS (or its nominee) but the securities shall be registered in the name of the right owner (investor). Participants are obliged to open at least one sub account in the CDS system of CRA for each and every customer of their own. Assets are assumed fungible and every investor (account holder) has exclusive rights on the assets recorded in the sub account on his name.

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

CRA holds securities in the name of the investor (account holder)

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

All securities in CRA are automatically registered in the account holder's (investor) name.

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

Technically, registration occurs immediately when the issuer updates its registry in accordance with the CRA's records any time it wishes. Participant (issuer) is informed through acknowledgement messages via the system.

**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?**

The securities cannot be transferred before registration in the buyer's name is complete.

*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.**

Transfers are processed as debits and credits to the members' accounts.

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

CDS allows both real-time continuous transfers and transfers in one or more batches depending on the type of transactions.

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

The CRA system provides real time settlement. By market convention, participants use batches for mutual funds trades. Participants are allowed to use more than one batch. Real time service is available during the system time (08:45-21:00). For securities except mutual funds, batches are processed immediately after initiation by participant. For mutual funds, there are pre-set processing time intervals through the day.

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

Settlements occur daily on working 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.*

CRA does not hold any cash accounts. Final fund transfers are realised in conjunction with Takasbank which acts as the cash agent.

**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.

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

On Takasbank.

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

Not applicable. CRA does not provide credit extensions.

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

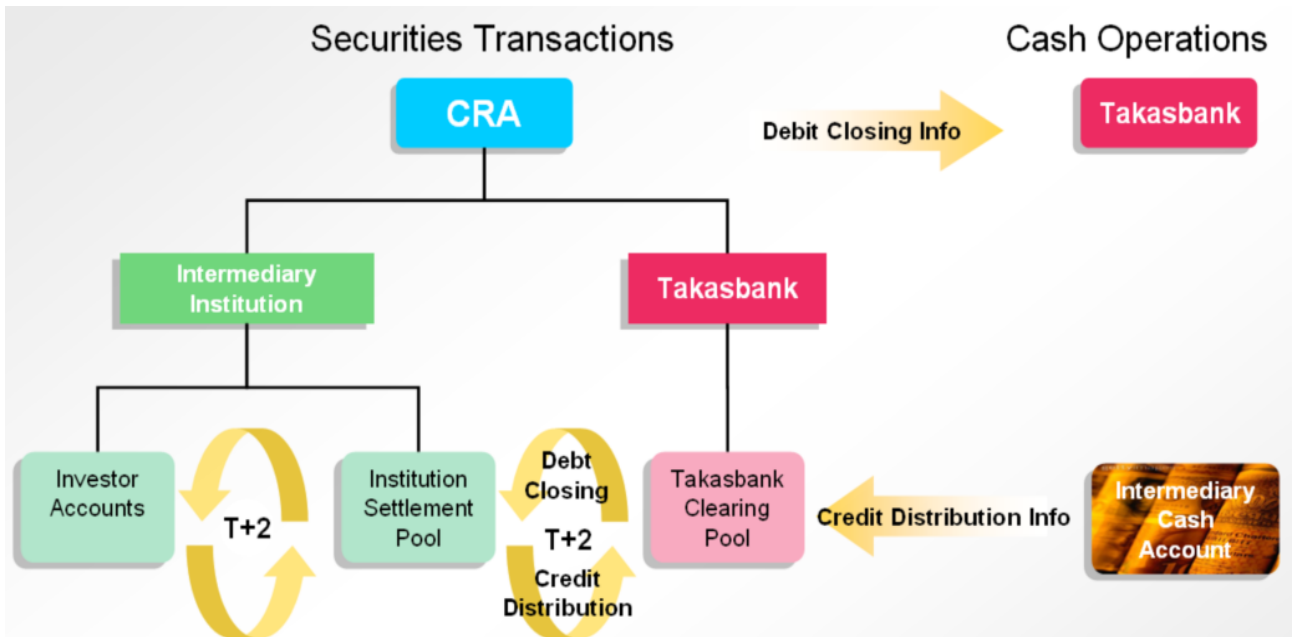
Not applicable. See answer to question 3.

*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 provide a response for each alternative and indicate the relative importance of each alternative.*

CRA serves a DVP system which is sponsored by Takasbank as the securities agent for the settlement of equities. Takasbank runs two different DVP systems that CRA involves. One of them is for trade settlements and the other is a DVP system that covers transfers that do not occur in the exchange. The DVP system is also supplemental to trade settlements whose custody accounts are held under a non-broker custodian.

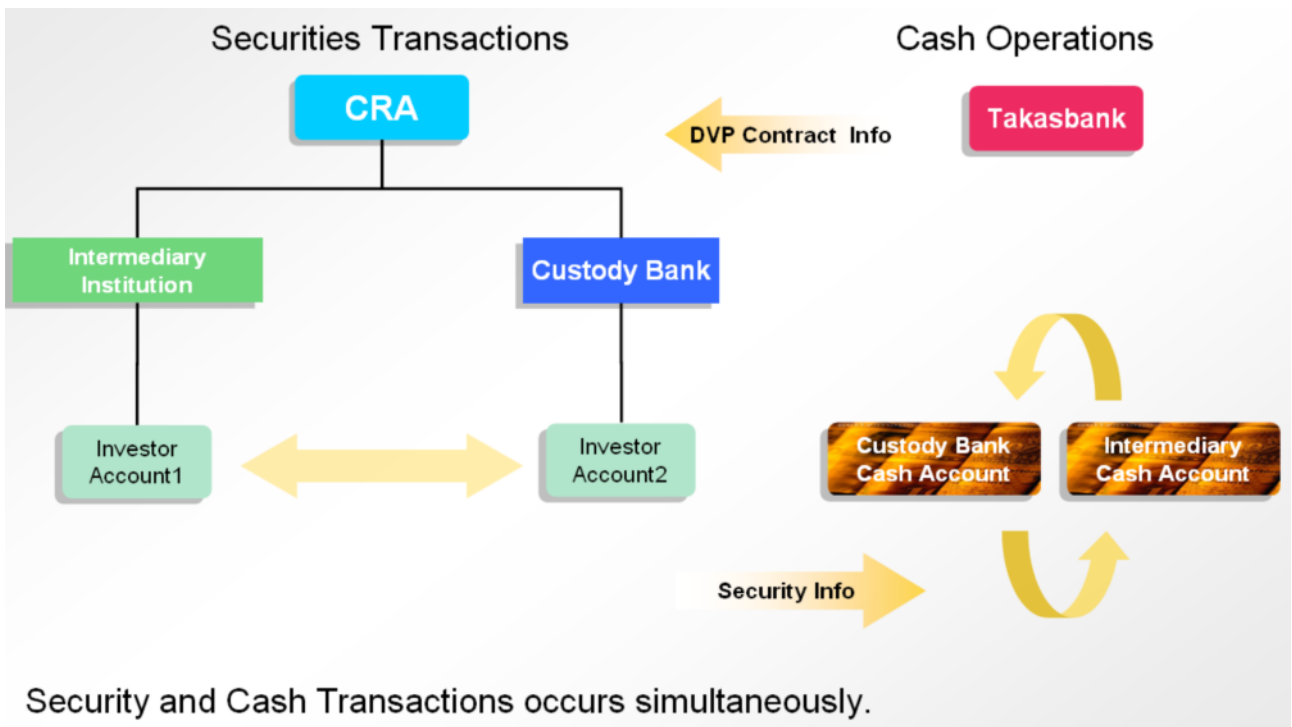
#### **TRADE (ON-EXCHANGE) DVP SETTLEMENT**

**(MODEL 3 -Simultaneous net settlement of securities and funds transfers)**



**OFF-EXCHANGE DVP SETTLEMENT**

(MODEL 1 -Gross, simultaneous settlements of securities and funds transfers)



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

Funds transfers and securities transfers are processed in different systems. CRA and Takasbank have a joint proprietary messaging system. Transfers are executed via this messaging system.

*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.*

Transfers may occur on a net basis or a gross basis as indicated above. Trade settlements occur on a net basis.

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

Takasbank and CRA do not split large transactions or require participants to split large transactions.

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

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

Transfers of securities are final when the debit/credit entry is complete. .

*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?*

Not applicable. Fund transfers occur at Takasbank.

*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. Takasbank does not release securities delivery request to CRA before the final transfer of funds.

*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. Fund transfers occur at Takasbank.

*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.*

Timing of finality does not differ depending on the type of the security transferred or currency.

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

CRA reports final transfers' results.

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

CRA does not guarantee securities transfers.

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

Not applicable.

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

Not applicable.

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

Not applicable.

## **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?**

As for the insolvency of intermediary institutions and banks, rules are clearly defined in the Capital Markets Law Article No: 46, p.2 and 5. According to the Law, if a capital market institution's authorisation is revoked and its capital market operations are cancelled by the Capital Markets Board due to the financial weakness or insolvency of the institution, client assets are protected against the institution's creditor third parties. Such institution's clients, can access their holdings through the Investor Protection Fund which will be in charge of carrying out the liquidation process after the gradual liquidation decision is taken by the Capital Markets Board.



The data at CDS is accepted as the official data by the Investor Protection Fund, which protects the assets of the investors against the claims of the insolvent custodian's creditors.

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

Not applicable. Default procedure is conducted by Takasbank.

**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.**

See answer to question 1.

***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?***

Not applicable. Default procedure is conducted by Takasbank.

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

Not applicable.

**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.).**

Not applicable.

**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).**

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

***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?***

Not applicable.

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

Not applicable.

**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?**

No. Bankruptcy or insolvency is not declared retrospectively..

**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 not any.

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

No participant has been insolvent since the securities (equities, mutual funds, and corporate bonds) were dematerialised. Settlement defaults are conducted by Takasbank.

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

Not applicable.

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

Not applicable.

**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?*

No.

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

Not applicable.

*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.*

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

**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)**

Not applicable.

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

Not applicable.

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

Not applicable.

*c) Other? Please specify.*

Not applicable.

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

Not applicable. The securities lending borrowing facility was turned into an organized type market which is operated by Takasbank as of November 28, 2005, along with the activation of Central Registry Agency (CRA) to take over the role as the depository and registry agency. CRA handles settlement functions for the securities lending borrowing facility. CRA serves the facility on an online-real time basis through the organized market.

**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.**

Yes.

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

Automatic notification is done electronically on real-time and on-line basis.

**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. Securities lending & borrowing market is operated by Takasbank.

**4. Are lent 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?***

CRA does not settle back-to-back transactions.

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

Not applicable.

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

Not applicable.

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

Not applicable.

**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?**

Not applicable.

**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.**

Not applicable.

**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.**

Not applicable.

**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 delivery of securities without the need for an extension of credit?**

Not applicable.

## VIII. RISK CONTROL MEASURES

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

The CRA management is responsible for the daily internal control activities and risk management. There is also the Information Security Committee with participants from all departments. This committee reviews the current practices and promotes improvements as necessary. To help risk identification and monitoring Risk Management and Auditing Department provides regular internal audit reports for each department. Furthermore, regular surveys of risk self-assessment are conducted across the company.

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

Risk Management and Internal Control Procedures and Information Security Procedures are described at a high level through the documents prepared by the Risk Management and Auditing Department and approved by the General Manager. Each department is responsible for the preparation of its internal control manual documenting the applied techniques.

#### **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?**

New services are introduced primarily through the new releases of CRA's Central Dematerialisation System software. Introduction of every new release is coordinated by the New Release Committee. This committee undertakes the review of the new services to be offered, of the relevant risk implications, and of the planning of development, testing and implementation. General Manager's approval is sought along the way in deciding what services to offer and when to implement. Risk Management and Auditing Department is also represented in the New Release Committee in helping to review the risk considerations together with the other departments.

The changes that are introduced without waiting for the next release also need to be approved by the New Release Committee. These changes, as well, are examined and tested by multiple departments. Again General Manager's approval is needed all along the way for implementation.

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

Risk Management and Auditing Department pursues all of its work with ultimate freedom from the operational functions. This department reports directly to the General Manager who is a member of the Board of Directors. This department benefits greatly from this independent status that it is granted.

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

All policies and procedures are submitted to the General Manager for approval and then to the Board of Directors as necessary. The Board of Directors does not have a risk management or audit committee. However in accordance with the Turkish Commercial Code there exists a Board of Auditors that is independent of the Board of Directors.

*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 audit: CRA's Risk Management and Audit Department performs.

External audit: CRA's external auditors are Deloitte Touche Tohmatsu.

Regulators: Capital Markets Board of Turkey examines CRA's functioning whenever it deems necessary, and receives an oversight of the procedures primarily through its representative at the CRA's Board of Directors.

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

Internal audit: CRA's internal audit addresses the sufficiency of the internal control activities and reviews the application of the required control procedures.

External audit: Independent auditors conduct a review of CRA's operations including the employment of proper control procedures.

Regulators: Capital Markets Board of Turkey has the requisite rights for examining every aspect of the operational and control activities of CRA.

All auditing and examination conclusions are reported to the General Manager for facilitating any corrective measures for compliance with the established procedures. External audit reports are presented to the General Assembly.

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

Internal audits are done at least once a year for every department. External audits are conducted once a year. Meanwhile regulators undertake examinations irregularly as they deem necessary.

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

Internal audit reports and the regulatory body reports are not available for the participants but the external audit report and the Auditing Board report are available for the participants and all the interested third parties.

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

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

CRA does not hold any securities on its own and hence the valuation of the securities at CRA system does not have any bearing to CRA's own risk management.

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

Not applicable.

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

Not applicable.

*a) What outside price or data sources are used?*

Not applicable.

*b) If pricing models are used, please describe how the models are chosen and how the model inputs are obtained.*

Not applicable.

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



CRA has a lien on the securities in participants' accounts for commissions, fees, tax and such unpaid debts of the participants to CRA.

**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?**

The lien only applies to the securities held in accounts whose beneficiary owner is the participant itself.

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

If the participant does not pay commissions, fees, tax and such unpaid debts to CRA on due time, CRA can liquidate the securities of the participant and deduct the proceeds from the unpaid debts of the participants.

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

CRA does not take collateral from its participants and has no collateral system to do so.

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

No.

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

No.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

**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?**

Not applicable.

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

Not applicable.

**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)?**

Not applicable. CRA applies DVP in association with Takasbank where the participants realise their payments. Simultaneous exchange of cash and securities are realised at the time of settlement.

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

Not applicable. Matched instructions are never rejected. Settlement will be realised when sufficient securities and payment are available.

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

Not applicable.

**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?**

Not applicable.

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

In addition to the internal control and the other risk management procedures CRA's business continuity plan ensure the resilience and stability of the operations of CRA. Please refer to IX.B.

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

CRA participants have the capability to monitor their own accounts on a continuous real-time on-line basis. Meanwhile only CRA's authorized operations staff has continuous access to relevant data.

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

CRA does not have a specific risk control regime for the participants that would be in financial difficulty. However Capital Markets Board of Turkey (CMB), as the primary regulatory body, closely monitors the financial viability of the CRA participants. Whenever a restriction or a ban is issued by CMB for the operations of any CRA participant application of these decisions are immediately performed in the CRA's system.

**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?**

No. CRA does not maintain or administer 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.*

All critical components of the SSS are replicated to eliminate single point of failures. Redundant components are used in infrastructure. Clustering is used to ensure uptime and enhance performance.

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

*a) Whole system overall?*

99,97 %.

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

System HW Availability	100 %
Local Area Network Availability	100 %
Wide Area Network Availability	99.99 %

***c) During critical processing periods?***

Time frame between 7:30 a.m. and 4:30 p.m. is considered as critical period. Rates are same as item b.

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

Yes.

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

Yes. Settlements have been delayed twice, for one and two hours respectively.

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

Reasons for delays were network problem and database bug problem respectively.

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

Business Continuity and Disaster Recovery Working Committee is working on contingency and disaster recovery issues. Committee members review and try to improve Business Continuity and Disaster Recovery Plan, working plan and actions.

CRS has three different Disaster Recovery Sites.

-Hot standby site in near building

-Hot standby site in the same city

-Cold standby site in another city

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

Yes.

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

No.. It is available for Board members and Capital Markets Board of Turkey, but it is not generally published.

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

Plan is tested once a year. The latest test was successfully performed on June 21, 2008. Some of the SSS participants were involved in the test.

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

Business Continuity and Disaster Recovery Plan includes the following issues;

- ✓ Strategy
- ✓ Methodology
- ✓ Business Continuity and Disaster Recovery Center (in Istanbul)
- ✓ Disaster Recovery Center (in another city)
- ✓ Business Continuity and Disaster Recovery Working Committee
- ✓ Scenarios
- ✓ Test Plans
- ✓ Backup Plans
- ✓ 3rd Parties (Turkish Telecom, etc.)
- ✓ Awareness

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

\*Component Failure no interruption (redundant configuration)

\*System Failure normally no interruption (RAC and Application Server Cluster)

Maximum 1/2 hour (from physical standby)

Maximum 2 hour (from Business Continuity Center)

\*Disk Failure 0 (Raid 0+1, Standbys, Disk Replication)

***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)?***

- Physical security (cameras, guards and electronic entrance cards)
- Network security (firewalls' and security devices' logs monitoring and review)
- SSS security (PKI Infrastructure, Smart card and Digital signature, daily controls and audit reports, hourly audit reports)

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

- Software & Hardware Security Systems
- PKI Infrastructure
- External penetration tests
- Smart Card and Digital Signature
- Firewalls
- Intrusion Detection and Prevention Systems
- VPNs
- User id/passwords etc.

**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?**

Yes.

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

Performance standards imposed on third parties by CRA are based on the standard agreement.

**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?**

Continuous tests and monitoring are performed to ensure the standards.

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

There is no specific rule. Some articles are included in the agreements.