
Central Clearing House and Depository (Budapest) Ltd.



Disclosure Framework for Securities Settlement Systems

December 2006

Introduction

The Committee on Payment and Settlement System of the central banks of the Group of Ten (G-10) countries (CPSS) and the International Organization of Securities Commissions (IOSCO) have demonstrated a shared concern with regard to clearance and settlement practices throughout the world. Both the CPSS and IOSCO believe that common interests in the efficiency and risk management of securities settlement systems can be advanced through collective initiatives. Consequently, in 1996 the CPSS and IOSCO formed a joint working group to develop a disclosure framework for securities settlement systems. The working group consisted of securities settlement system operators, including both official and private sector representatives, securities regulators and central bankers. Both developed and emerging markets were represented in the working group.

The goal of developing a disclosure framework for securities settlement systems (SSSs) builds on important prior work undertaken by the CPSS and IOSCO to identify risks associated with securities settlement. The 1992 CPSS report *Delivery versus Payment in Securities Settlement Systems* (DVP Report) defines and analyses the types and sources of risk associated with settlements between direct participants in a single settlements system. This report also clarifies the meaning of delivery-versus-payment (DVP) mechanism and describes three common approaches to achieving DVP, each of which entails different risks to market participants.

The *Cross-Border Securities Settlements* report (Cross-Border Report), prepared by the CPSS in 1995, expands on the DVP Report by analyzing the channels that market participants use to complete cross-border securities transactions. This report outlines the different risks that may be present in these arrangements, even in those cases where DVP is achieved, including replacement cost risk, liquidity risk, cash risk, deposit risk and systemic risk. In particular, the report highlights the fact that custody risk will be present whenever market participants hold their securities through an intermediary, a standard practice for nonresidents attempting to settle cross-border transactions.

The Cross-Border Report stresses the importance of understanding the nature of the custody risk, as well as the procedures used to effect back-to-back settlements and cross-system settlements in the cross-border context. The report concludes that the complexity of relationships between the multiple intermediaries associated with cross-border settlements poses challenges to the oversight of domestic markets and settlement systems. It notes that the most basic challenge stems from lack of transparency in cross-border securities settlement arrangements.

In 1990, IOSCO published a report in which it endorsed and supported the prompt implementation of nine recommendations by the Group of Thirty, such as shortening the time between trade date and settlement and assuring the simultaneous exchange of payment and securities. Successive reports on their implementation have also been prepared (1993, 1994, 1995 and 1996). In 1992, IOSCO published a document entitled *Clearing and Settlement in Emerging Markets - A Blueprint*, to facilitate the development of centralized, automated SSSs.

More recently, IOSCO's 1996 *Report on Cooperation Between Market Authorities and Default Procedures* (IOSCO Report) determines that transparency of market default procedures is important in that it provides certainty and predictability to market participants, facilitates orderly handling in case of an actual default and enables market participants to make an informed assessment about markets.

These reports, as well as other work undertaken by the CPSS and IOSCO, have consistently emphasized the importance of transparency of market mechanisms. At the same time, however, growth in worldwide settlements volumes and greater use of financing transactions have required settlement system operators to develop processes for more rapid exchange of securities and funds and more efficient linkages between systems. Moreover, as prior reports have shown, apparent similarities in the technologies employed and services offered can mask significant differences in securities settlement arrangements, as well as in the approaches taken to the management of the associated risks.

Therefore, it is critical that participants in the securities markets carefully examine the rules and operating procedures and practices of each system, as well as the governing law, underlying custody arrangements and linkages across the systems. While much relevant information of this type is publicly available, it is often contained only in extensive, detailed handbooks of rules and procedures. A number of SSSs do publish informative pamphlets for their participants, but these can take a variety of forms, making it difficult for participants to assess similarities or differences in the risk management approaches used by the different systems.

To assist market participants in identifying important risks associated with their participation in SSSs, the CPSS and IOSCO therefore determined that it would be beneficial to develop jointly a disclosure framework that system operators and participants could use to gain a clearer understanding of the rights, obligations and exposures associated with SSSs. The CPSS and IOSCO welcomed the participation of a number of private sector SSS operators in the development of the disclosure framework.

The framework is intended to be completed by SSS operators for the information and benefit of their direct participants, both current and potential, as well as for indirect participants. It is not intended as an attempt to set prescriptive standards for SSSs, as a replacement for the rules and procedures of the SSS or as a legal representation or binding contract. Moreover, the framework does not necessarily identify all information that the SSS should disclose in the light of its individual facts and circumstances and therefore it may be necessary for participants to discuss issues directly with the SSS to obtain a full understanding of the system. The framework should, however, help market participants and regulators to organize and understand the information that they need in order to appraise the risks, including any systemic risks, potentially associated with SSSs.

While the framework focuses on the risks of direct participation in SSSs, it is clear that many of the same issues arise in connection with the relationships between market participants and local or global custodians. Therefore, while this framework is not intended to cover the specific aspects of these relationships, it may be helpful as a point of reference for those using the services of custodians as well.

The sections below are intended to elicit important information from SSSs in the areas of organizational structure and market context, ownership arrangements, rules and procedures, relationships with participants, links to other SSSs and intermediaries, procedures for funds and securities transfers, default procedures, settlement of back-to back transactions, risk control measures and operational risks. The disclosure framework is structured in the form of a questionnaire which SSSs would complete. The CPSS and IOSCO encourage SSSs to complete the questionnaire and make their responses available to market participants, regulators and other interested parties. To ensure that the information in their responses to the questionnaire remains accurate, SSSs would also need to review their responses periodically, at least annually, and make appropriate changes if necessary. The questionnaires completed by SSSs would therefore serve to increase the transparency of their operations to the market-place.

I. Basic information

This section addresses a number of fundamental features of the SSS, and provides the market context for its operation. The questions establish the basic functions of the SSS, including the securities for which it provides settlement services, as well as whether the SSS offers other services. Questions on the organizational and ownership structure of the SSS elicit information on its legal basis and corporate governance.

A wide variety of organizational structures and business functions are possible for SSSs. For example, systems may be owned by central banks, by their participants or by an independent private sector entity that may or may not be operated for profit. It is helpful to distinguish the type of ownership, the organizational and decision making structure of the SSS and the financial resources of the SSS, as well as the supervisory oversight to which the system is subject, as a first step in clarifying the respective responsibilities of all relevant parties.

A. What is the name of the SSS?

Name of the Hungarian SSS:	Central Clearing House and Depository (Budapest) Private Company Limited by Shares.
Short name:	KELER Ltd.
Usually referred to as:	KELER.

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

KELER is located in Central-Eastern Europe, Budapest, Hungary.
The applicable time zone is Central European Time (CET) that is GMT+1 hour standard.

C. What functions does the SSS perform?

KELER is the National and Central Securities Depository of Hungary, a CCP Clearing house and a specialized financial institution. It provides clearing and settlement services to the Budapest Stock Exchange (Exchange) and the OTC market. KELER acts as central counterparty and guarantees financial settlement on the cash and derivative markets of the Exchange.

KELER keeps securities accounts for both banks and brokerage companies, but it keeps cash accounts for the brokerage companies only. The CSD is responsible for allocation of securities ISINs, central securities database functions and registration of dematerialized securities.

Additionally, in competition with other market players KELER provides cross-border settlement and custody services (both for local and foreign investors) and also provides registry and paying agent services for several issuers.

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

KELER serves as both the national and central securities depository of Hungary and provides securities settlement services for the Exchange and also outside the exchange environment.

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

The following instruments are eligible for deposit at KELER:

- equities
- bonds (government and corporate)
- T-bills
- investment fund notes

All securities issued to the public in Hungary are eligible for deposit at KELER. Non-publicly issued securities shall only be eligible if data supply is guaranteed by the issuer on a continuous basis.

In general, foreign securities in book entry form are also eligible but acceptance is subject to the issuer's eligibility at one of KELER's foreign depository service providers (Clearstream Luxembourg, Citibank Frankfurt).

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

All securities eligible for deposit are also eligible for transfer within KELER.

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

Eligible securities are dematerialised, immobilised or held in physical form but in all cases transferred via book-entry in KELER's system. (All publicly issued securities must be in dematerialized form as of January 1, 2005 by law.) Physical transfer of securities is available upon request.

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

KELER does provide safekeeping services for physical certificates but once they are delivered into KELER the transfer of securities within the CSD is effected via book-entry unless physical transfer is requested by participants.

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

KELER provides HUF cash account keeping and funds transfer services to its broker participants to support settlement of both on and off Exchange trading. Banks must have their HUF cash accounts directly with the Central Bank (NBH), so in their case the cash leg of settlements (credits/debits) is effected on these NBH accounts by KELER as a special member of the NBH's real-time cash clearing system (VIBER). Banks are allowed to have special HUF cash accounts with KELER exclusively for collateral purposes. KELER participates in the interbank cash clearing (giro) system in Hungary as well.

Also, KELER provides limited cash services in other currencies for all participants primarily in connection with cross-border transactions.

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

KELER provides a trade matching service for off Exchange settlements supplemented by a hold/release mechanism as part of its RTGS settlement processing. KELER also performs the settlement of securities trades concluded on the Exchange, but receives already matched transactions so it is the Exchange itself who performs the matching.

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?

KELER is the sole provider of trade netting services for all transactions concluded on the Exchange. The netting performed is multilateral.

Off-exchange transactions are settled on a gross basis in real time.

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

KELER currently offers three different securities lending programmes:

- automatic pool lending exclusively for fails coverage on the Exchange
- tri-party lending with KELER's intermediation

- KELER as principal borrowing from the lender and lending to the borrower

KELER has made several attempts in the past to promote its facilities but despite its continuous efforts centralized lending and borrowing has been lacking activity ever since.

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

The management of corporate actions is not a centralized function in Hungary, rather the procedures are based on general market practice. KELER participates in the process by offering related services in its capacity as a securities depository but by no means in its capacity as a central agent. If applicable and requested by the issuer KELER

- provides breakdown of shareholders (based on CSD accounts) and payment details
- processes registration details submitted by participants
- blocks securities on participants accounts.

Although KELER offers paying agent services to issuers, it is not considered central paying agent. Also, KELER does not provide withholding tax reclamation or proxy voting services.

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

KELER as central counterparty guarantees settlement to both cash and derivative market transactions concluded on the Exchange.

8. Other? Please specify.

Not applicable.

D. What type of organization is the SSS?

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

KELER is a private sector company limited by shares.

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

KELER is organised on a for-profit basis.

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

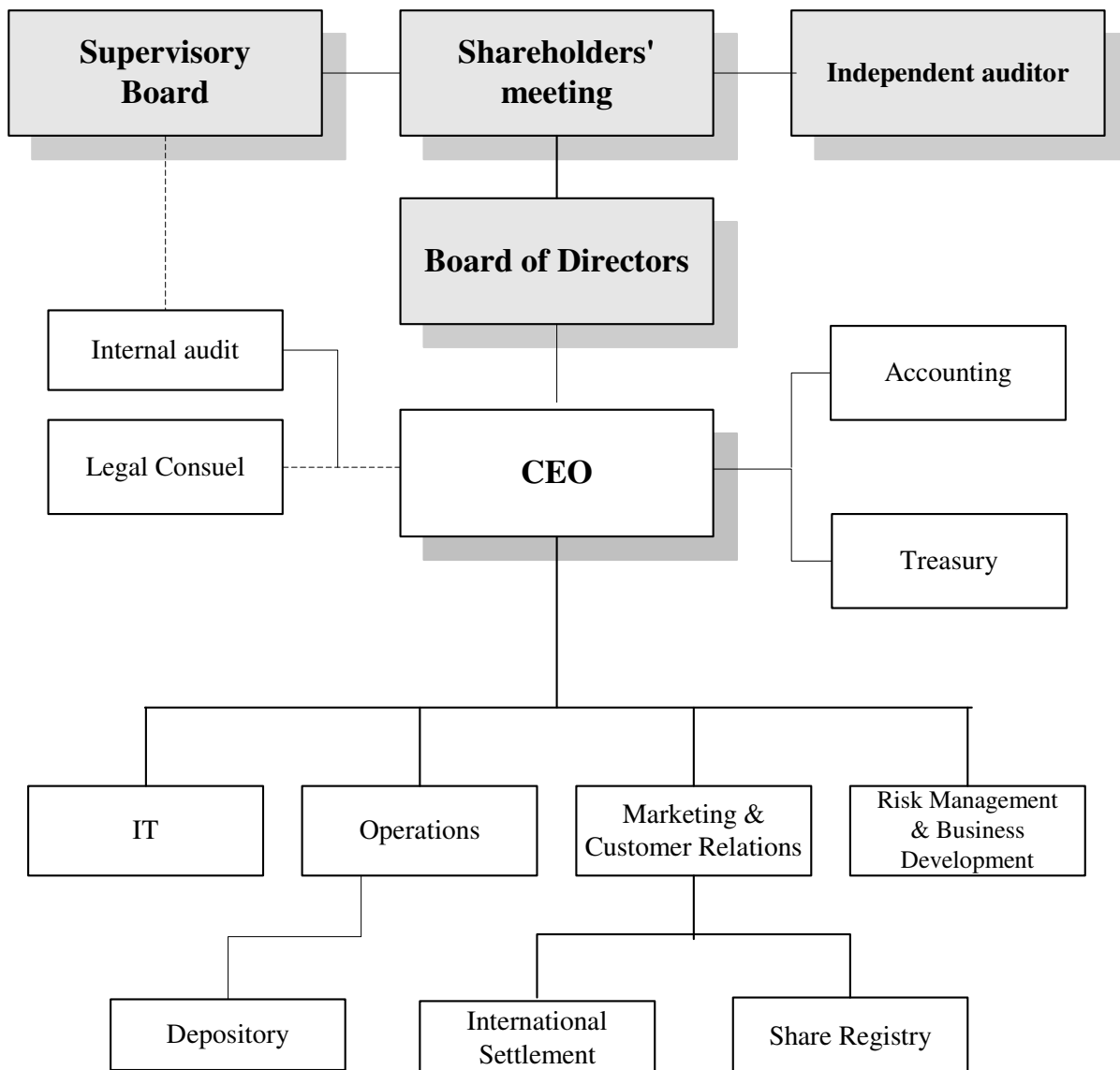
The legal basis for the establishment and operation of the CSD is provided by:

- Act CXX of 2001 on The Capital Market (Capital Market Act)
- Act CXII of 1996 on Credit Institutions and Financial Enterprises (CIFE)

Securities transfers are governed by the General Business Conditions of KELER enacted by the Hungarian Financial Supervisory Authority, agreed and accepted by all members upon joining.

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

The organizational structure of KELER is as follows:



1. Who are the owners of the SSS?

KELER is owned by:

- the National Bank of Hungary (53,33%)
- the Budapest Stock Exchange (46,67%)

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

KELER operates its own system. Physical deliveries of securities are outsourced to third parties.

3. Does the SSS have a Board of Directors?

Yes, being a company limited by shares, KELER has a Board of Directors.

(a) What is its composition?

According to the Deed of Foundation the Board of Directors consists of 3 to 7 members, two of which must be employees of the company. Currently it consists of 7 members:

- two representatives of the National Bank of Hungary
- two representatives of the Budapest Stock Exchange
- two representatives of KELER's management
- an independent chairman delegated with a consensus among the owners

The representative of the Hungarian Financial Supervisory Authority (HFSA) and KELER's legal counsel are regularly invited to participate at the Board meetings but have no voting rights. The Board usually meets on a monthly basis, but both the Chairman and the Chief Executive Officer have the right to convene the meeting urgently.

(b) What are its responsibilities?

It is the Board's responsibility to ensure KELER's overall prudence in its activities.

The following matters shall fall within the main competence of the Board of Directors:

- exercising the employer's rights in respect of the members of the management with regards to appointment, removal, and remuneration.
- convening an extraordinary General Meeting

- approving and amending the rules of KELER
- providing for the keeping of the books
- quarterly reporting to the Supervisory Board
- discussing the findings of external and internal audits and approving of an appropriate action plan
- discussing the findings of inspections conducted by KELER in respect of persons coming under the force of the rules, and taking the required actions
- giving accounts and delivering the annual balance sheet to the Supervisory Board, reconciling them with the Supervisory Board, presenting them to the annual ordinary General Meeting, and adequately publishing them
- submitting the required reports to the Court of Registration
- making decisions on all matters not falling within the competence of the General Meeting
- establishing and amending the organizational and operational rules of KELER
- making strategic decisions
- approval of the company's annual development and investment plan.

F. Please describe the financial resources of the SSS.

KELER's own financial resources consist of paid-in capital, retained earnings and insurance coverage.

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

	2000	2001	2002	2003	2004	2005	2006*
	HUF billion						
Equity capital:	9,70	10,65	11,29	12,11	14,24	14,39	14,23
Paid-in capital:	4,50	4,50	4,50	4,50	4,50	4,50	4,50
Retained earnings:	5,20	6,15	6,79	7,61	9,74	9,89	9,73

*non-audited data

2. Guarantees, insurance coverage or other similar arrangements?

Further to the property and other related insurance required for its normal operations, KELER holds a professional liability insurance. The insurance provides coverage against loss resulted from the errors and omission of KELER (professional liability), the errors of computer systems and crime.

3. Credit lines or letters of credit?

KELER has no agreement for credit lines.

4. Powers to assess participants or equity holders?

Please refer to section VIII./G./2.

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

In general, KELER is subject to supervision by the Hungarian Financial Supervisory Authority (HFSA) and oversight by the National Bank of Hungary (NBH). Practically, on one hand the rules and regulations of the CSD require approval from the HFSA and in addition a representative of the supervision is invited to observe Board meetings on a permanent basis. On the other hand, the NBH is a major shareholder in KELER, consequently it is represented in both the Board of Directors and in the Supervisory Board of the institution.

As a company limited by shares, KELER is under the supervision of the Court of Registration.

II. Rules and procedures of the SSS

It is important that SSSs have clear rules and procedures governing all major aspects of their operations. If participants have access to these rules and procedures, they will be able to form clear expectations about the actions of the SSS and will be able to use their understanding to make decisions on that basis. This is particularly important with regard to the resolution of failures to settle or other potential disruptions to the operation of the SSS.

The rules and procedures also typically describe the structures and processes for taking decisions that are at the core of any organization's corporate governance. For SSS operators, the integrity of the decision-making processes and the means for communicating decisions is important to the level of confidence participants have in the system's ability to manage risk fairly and effectively.

The questions below focus broadly on how participants can obtain copies of the SSS's rules and procedures, how participants can provide input to the rules and procedures, how they are notified of changes, the applicability of the rules and procedures to the SSS as well as its participants, and the circumstances under which the rules and procedures can be overridden. Taken together, the questions are intended to provide participants with an understanding of the role that the system's rules and procedures play within the operation 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 primary documents are KELER's General Business Conditions (GBC) and its Fee Schedule. They are subject to the approval of the Board of Directors and the Hungarian Financial Supervisory Authority. In addition, KELER issues Clearing House Regulations with procedural or margin details and Conditions of Acceptance of Collateral containing information such as haircuts.

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

Documents are available from KELER's proprietary communication system, its official website, or directly from the company.

Before becoming a KELER participant customers are provided with the documentation.

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

No. Other documentation is for information purposes.

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

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

KELER's General Business Conditions and its Fee Schedule require the approval of the company's Board of Directors and the Hungarian Financial Supervisory Authority.

In case of significant amendments there is a two-step procedure to be followed. First, the general principals and the description of the proposed changes are discussed by the Board of Directors. Then the actual wording is also submitted to the Board. Only upon the approval of the Supervision will the rules come into force.

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

The official announcement regarding amendments to the GBC, the Fee Schedule and also to Clearing House Regulations is made in „Magyar Tőkepiac”, the official daily paper of the Hungarian Financial Supervisory Authority, the Exchange, and KELER. In addition, all information is also published through KELER's proprietary communication channel and website.

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

The formal procedure for consultation on amendments involves the Settlement Committee of the Exchange. This body is provided with the appropriate documentation prior to KELER Board meetings. The Committee's view is then represented in KELER Board meetings by the Exchange representative. This way participants are indirectly represented in the process.

In addition, stakeholders can always make comments and express views directly, communicated in more informal ways and the continuous exchange of information between KELER and its participants guarantees that amendments are set out in accordance with the market needs.

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?

Rules and procedures are binding on both KELER and its participants. Under particular circumstances, KELER is entitled to waive or suspend approved rules and procedures subject to the approval of the Board of Directors and the Hungarian Financial Supervisory Authority.

III. Relationships with participants

In evaluating SSSs, it is essential that participants understand the nature of the relationships that the systems have with their participants. The different types of membership that are available as well as the requirements for admission as a participant should be understood. A knowledge of the account structure of the SSS is also important for an informed evaluation of the system. Participants should understand whether this structure allows or require the segregation of their customers' cash or securities in separate account or sub- accounts at the SSS.

This section addresses the issues as well as the procedures for and consequences of terminating participation in the SSS. Because of loss-sharing or other arrangements, termination of membership may not extinguish all obligations of participants with respect to the SSS. General limitation on SSS liability to participants are the subject of the final question in this section. These questions are obviously important in enabling participants to establish the magnitude of their exposures to different risks associated with the SSS.

Although these questions provide the basic framework of the relationship between participants and the SSS, many of the most important aspects of these relationships concern the resolution of failures to settle or events of default. Specific questions on these topics are discussed in Section VII below.

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

KELER offers CSD membership for participation in custody and settlement processing outside the clearing system. CSD membership can be extended to Clearing membership that is offered for participation in Exchange clearing and settlement processing.

There are of course issuers and other special participants like gov't agencies or the National Bank who are clients of KELER but are not considered members in this sense.

1. How do the types differ?

As opposed to CSD membership, clearing membership allows participation in Exchange clearing and settlement processing and it entitles participants to benefit from the central counterparty settlement guarantee and the resources of KELER's guarantee system. For this reason clearing membership is subject to certain financial criteria and represents strict collateral, operational, and reporting obligations to be undertaken by the participant.

Within the clearing membership system KELER recognizes general clearing members and individual clearing members. General clearing members are licensed to clear and settle own and

client account trading, as well as to operate as a contracted clearing member for other Exchange trading members. Individual clearing members are licensed to clear only own and client account trading.

- 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.**

All members within the same membership level 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 must segregate own and client assets.

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

It is the decision of the participant whether it uses dedicated subaccounts for customers or a single omnibus client account or a combination of the two.

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

The segregation between proprietary and client assets is compulsory by law.

- 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?**

No, KELER does not recognize this type of indirect relationship with such third parties. It is only the main account holder who has the right to dispose on his securities account including sub-accounts.

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

- 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.**

The primary criterion of membership within KELER is a valid license from a relevant supervisory authority.

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

No.

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

CSD membership is open to any party that is eligible for membership according to the law.

On the other hand, because of the central counterparty settlement guarantee clearing membership constitutes an outstanding risk for KELER. Therefore, it establishes the requirements of clearing membership on the basis of the risks carried by the members and the market segments. It determines different basic requirements depending on the type of clearing membership and the individual features of the settled market segments. KELER's view in this respect is that in markets carrying identical risks its partners should face the same terms and requirements.

It is a precondition for clearing membership that the prospective member should have a license from a relevant supervisory authority concerning its activities, fulfil the capital requirements prescribed in the General Business Conditions, and make it possible for KELER to check compliance with such requirements (data supply).

In connection with settlement, the clearing member must open the respective accounts, make the prescribed coverage continuously available and perform daily settlements contractually. In the case of derivative clearing membership, compliance with the prescribed limits is also required (market position limit, capital position limit, identification of customers).

KELER is authorised to execute on-site audits, thus in the scope of clearing-house audits we have an opportunity to look into the operation of the company, and check compliance with the aforementioned criteria. In addition, KELER's partners that might undergo bankruptcy proceedings are continuously checked, thus the launching of the procedures is noticed in time and the necessary measures may be taken.

Financial criteria:

	Derivatives market		Cash market	
	Derivative	Commodity	T+3	T+2
ICM clearing own trades only	20	10	20	20
ICM clearing own and ordering client trades	100	20	100	100

GCM	500	500	500	500
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in million HUF

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

For the purpose of continuously guaranteeing compliance with the conditions of clearing membership and contracts, KELER is entitled to conduct investigations at the clearing members and at the members cleared by them. Otherwise KELER does not perform such supervisory functions.

The supervision of KELER participants and whether their activities are in accordance with KELER's General Business Conditions is the duty of the Hungarian Financial Supervisory Authority.

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 member may terminate its membership following a written notice signed by the authorized signatories. The resignation is effected only if all due obligations have been settled. The lead time is 30 days during which all positions must be closed and all obligations must be met.

F. Under what conditions can the SSS terminate a participants membership in the SSS?

Clearing membership can be suspended:

- if the clearing member does not satisfy the requirements of clearing membership,
- if compulsory measures are taken three times within a period of one year (compulsory buy-in, removal of deals, failure of performance by the borrower upon the expiry of lending).

Clearing membership can be terminated:

- if the circumstance giving rise to suspension continues to prevail even after a period of 3 months,
- if the clearing member's license is terminated by the relevant supervisory authority.

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

KELER's liability to participant is based on the general rules of the Civil Code of Hungary.

Generally this means that KELER shall compensate any damages caused by its unlawful conduct (e.g. breach of contract) to the extent of its whole property except for the case when KELER proves that it has acted as it is generally expected in the given situation. Liability for a breach of contract caused wilfully, by gross negligence or by committing a crime, as well as for a breach of contract damaging life, corporal integrity, health can not be validly excluded. KELER is not liable for damages caused by force majeure.

In addition to the general rules KELER is liable according to the specific rules relating to its different activities and services (i.e. types of contractual obligations, e.g. deposit etc.).

IV. Relationship with other SSSs and commercial intermediaries

Many SSSs have relationships with intermediaries who perform critical tasks for the SSS and indirectly, therefore, for the system's participants and their customers. In particular, relationships or linkages between SSSs may be important for an understanding of the implications of settlement arrangements. For example, in those instances where the linkage includes using another SSS or a commercial intermediary as a securities sub-custodian, disclosure of information concerning the linkage would be essential for participants to fully evaluate the associated risks. The appraisal of risks may differ depending on whether the linkage allows only free deliveries or whether cash accounts at the two SSSs are also involved. The latter types of linkage deserve particular attention to ascertain whether they increase the potential for settlement disruptions to spread quickly between different systems.

Because it is the SSS and not its participants that negotiates and concludes the agreements with these third parties, it is important for participants to be fully advised on the relevant aspects of the system's various intermediary relationships, including the standards used by the SSS in the selection and monitoring of intermediaries, the functions that the intermediaries perform and any specific risk management mechanism in place specifically to protect against the risks posed by these relationships. It is also important to identify instances in which the SSS advances funds or securities on behalf of third parties or intermediaries, as these actions can pose risks to the SSS and its participants.

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

KELER maintains settlement links to Clearstream Banking Luxembourg (ICSD) and to Citibank AG Frankfurt. Through its link with Clearstream, KELER provides cross-border settlement, custody and corresponding cash services to its participants in several markets. Through its link with Citibank, KELER offers clearing and settlement services for exchange trading in the German market, on the XETRA platform, accompanied by supporting custody and cash services. These two institutions are considered both custodians and cash correspondents of KELER.

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?

KELER maintains settlement links to:

- Clearstream Banking S.A. in Luxembourg (CBL)
- Clearstream Banking AG, in Frankfurt (CBF) - indirectly through Citibank AG. Frankfurt

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

All securities that are eligible for deposit at the partner SSSs are eligible for transfer via the respective link in book-entry form. These include:

- Equities
- Bonds
- Rights
- Warrants

(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 linkage to CBL allows for securities to be transferred either free of payment or against payment based exclusively on settlement instructions submitted by participants. In case of securities transferred against payment, cash or securities (depending on the direction of the transaction) are blocked on the participants' accounts upon their instruction. Once confirmed by the partner SSS transfer and payment are booked simultaneously in KELER's system.

The indirect linkage to CBF also permits securities transfers both free of and against payment. Off exchange settlements are processed in the same way as described above in case of the link to CBL. Exchange transactions however do not require settlement instructions from participants, rather they are generated automatically. Participants are required to cover their positions in accordance with the applicable settlement cycle. Transfer and payment are booked simultaneously in KELER's system upon confirmation from the domestic agent.

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

Both SSSs provide custody services to KELER. It is KELER who bears the respective risks against its participants.

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.

KELER uses Citibank AG, in Frankfurt as domestic agent as well as commercial cash correspondent.

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.

The establishment and review of relationships (custodian and/or cash correspondent) or links to other SSSs is managed on a case-by-case basis. In general, consideration is given to whether the institution is well-established with respect to legal, financial, and operational stability but no such standards are used in the procedure.

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.

No.

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.

Currently, there are no such measures in place. Standard KELER regulation and protection apply.

V. Securities transfers, funds transfers and linkages between transfers

At the heart of the operations of SSSs are the transfers of securities and fund that actually comprise the settlement process. The questions in this section begin by focusing on the process, if any, for matching settlement instructions prior to beginning the settlement process itself. In some markets, matched settlement instructions are binding, which may impose additional obligations on participants that are important for them to understand.

This section next considers issues raised by the practice of securities registration. Because the laws of different countries vary widely in this regard, this disclosure framework has not been designed to substitute for the legal analysis of the implications of registration, for example the issue of the nature of the title to securities that is transferred in the SSS if the system itself is not also the registrar. The questions are instead focused on the circumstances in which the SSS itself becomes involved in the registration process, as well as the risks that may arise if participants fail while securities are in the process of being re-registered in the buyer's name. In particular, it is important to understand whether the rules and procedures of the SSS would require transactions to be unwound in such an event.

The mechanics of securities and funds transfers are then addressed, including the issue of where cash transfers associated with securities transfers at the SSS take place. These questions also address the circumstances under which the SSS extends credit to participants as an aspect providing funds transfer capability at the SSS. It is clearly important for participants to understand what types of cash account are offered at the SSS and on whom they take a risk with respect to cash deposits, as well as whether the SSS itself bears credit risk in conjunction with these accounts.

The questions then explore the timing of processing within the SSS, whether the SSS is a DVP system, and what type of DVP model, if any, has been adopted by the SSS. DVP is a mechanism which ensures that final delivery occurs if and only if final payment occurs, which eliminates principal risk and contributes to reduction in liquidity risk.

The issues which arise in the practical implementation of DVP were outlined in the DVP Report referred to in the Introduction, and mainly concern the finality of the securities transfers and the funds transfers which together constitute the DVP settlement. Transfers are final if they are both irrevocable and unconditional. A transfer is irrevocable when the parties to it can no longer revoke their instructions, and it becomes unconditional when there are no longer any circumstances that could cause the SSS to unwind it. If transfers are provisional at the time of processing, even if DVP is achieved, the risk remains that transfers may have to be unwound later if finality cannot be achieved.

If not properly recognized and controlled, this „finality risk” could have systemic effects. Members of SSSs are often provided with immediate availability of securities received, even if the transfer is not final. If these members sell the securities again, or make them available to custodial clients, and the original transfer is subsequently unwound, additional transfers by the member or the member's clients may also have to be unwound, spreading the impact of the unwind to unrelated parties. It could also ultimately lead to losses to be shared among

participants. For these reasons, the questions below attempt to clarify precisely the circumstances under which transfers become final.

The questions also address the provision of settlement guarantees by the SSS. If guarantees exist, it is necessary for participants to understand the events that trigger the guarantee as well as the coverage that is provided by the guarantee, including the liability of the SSS with respect to the guarantee.

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

Trades concluded on the Exchange are matched and forwarded to KELER by the Exchange. No further matching is performed by the CSD.

Off-exchange settlements are based on participants' settlement instructions. These instructions are to be matched in KELER's system. The matching process begins immediately in real time after an instruction is received into the system even prior to the requested settlement date. The following matching criteria are applied:

- Type of transaction (DVP/FoP)
- Direction of transaction (Buy/Sell)
- Counterparty account
- Underlying security (ISIN)
- Quantity of security
- Settlement amount including currency and considering tolerance limit
- Intended settlement date

Although matching is required for FoP transactions KELER offers a default possibility to automatically generate FoP receipt instructions by the settlement system. Matching is separated from the availability of cash or securities by a hold/release mechanism. Only matched trades released by both parties will be settled.

1. Is matching required for all transactions without exception?

Yes.

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

This scenario is only applicable to off-exchange settlement processing. Matching status of settlement instructions is reported to participants in real-time. Unmatched instructions remain pending in the system until either they are cancelled by participants or until they expire at the end of a pre-defined period of time depending on the nature of the transaction.

3. Are matched settlement instructions binding on participants?

On the Exchange matching is binding on all participants.

Off the Exchange matched settlement instructions are binding only in the sense that from the time of matching until the end of requested settlement date they can only be cancelled bilaterally. Settlement however can still be prevented unilaterally by putting the instruction into hold status.

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

With respect to Exchange settlements supported by KELER's CCP guarantee failure by participants to meet their settlement obligations results in a fails management mechanism operated by the SSS. This may involve:

- automatic pool lending
- additional collateralisation
- buy-in procedure
- forced liquidation
- penalty

With respect to off-exchange settlements there are no direct consequences in relation to KELER. Disputes are to be negotiated directly between counterparties.

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

The fails management mechanism is featured in KELER's GBC.

(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.

Exchange transactions become binding upon trade confirmation issued by the CSD. Off-exchange settlements become binding (only in the sense described in V./A./3.) upon being matched in KELER's system.

KELER starts the matching process immediately after instructions are received into the system, even prior to the requested settlement date. An instruction's eligibility for settlement is controlled by the hold/release mechanism. Alternative pre-matching via e-mail/fax/phone between participants is still common market practice.

B. Are securities transferred within the SSS registered?

No. Within KELER securities are kept on a fungible basis in blank endorsed form. Registration in Hungary is neither centralized nor is it continuous. From a technical and legal point of view, it is necessary exclusively in the event of corporate actions to be able to exercise beneficial ownership rights vis-à-vis the issuer company.

1. Who is the registrar?

There is no central registrar in Hungary. Issuer companies have the right to choose a registrar or they can set up their own registrar within the company. KELER offers registry services to issuers in competition with a very limited number of other service providers. Only investment service providers, KELER and the issuers themselves are allowed to operate as registrars.

2. Is it normal practice to register 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?

Securities are not registered in the name of KELER. The only and very special instance when securities are registered in the name of KELER nominee is the case where KELER provides domestic agent bank settlement and custody services to foreign CSDs.

Securities housed within KELER owned by foreign investors often used to be registered in the name of the foreign custodian instead of the beneficial owner. However with the recent introduction of the nominee concept registration is likely to be made in the name of a custodian's nominee in the future. KELER cannot identify whether the securities held in different accounts within KELER are registered in the name of the account holder, the beneficial owner or somebody else. KELER accepts physical securities to be eligible for deposit into the Depository with blank endorsement only. As a service, KELER arranges registration with the issuer in case of corporate actions, based upon the instruction and information received from the account holders. (See also under I./C./6.)

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

Please see V./B./2.

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

Not applicable. Transfer of securities and registration are not directly connected.

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

In case of standardized corporate events, 3 business days after the record date KELER transmits the information received from the account holders (including serial numbers allocated) towards the registrar in order to update the registration records. The update must be completed on the fifth business day after the record date (i.e. the event date). The new records show the names and positions of the shareholders with value record date. Participants are not notified by KELER about the completion of the registration process.

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 bankruptcy or other events which result in the buyer's name not being entered on the register?

Securities can be transferred within KELER before registration in the buyer's name is completed. In the event of a participant's (buyer's) bankruptcy the liquidator will not turn to the registrar but considers the internal records of the bankrupted company and also relies on the records of KELER.

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' account or via some other method.

Securities transfers within KELER are processed as debits and credits to members' accounts/sub-accounts.

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

KELER operates an RTGS system for off-exchange settlement while Exchange transactions are processed in one morning batch.

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

Continuous settlement processing is available from 08:00 to 18:00. The Exchange settlement batch starts at 08:15 and lasts until 11:30.

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

Securities settlement within KELER occurs on a daily 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.

Securities transaction related funds transfers are made as debits and credits on the accounts of the brokerage companies held with KELER and on the accounts of the commercial banks held with the central bank. Both legs (securities and cash) of the transactions are settled by KELER.

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?

KELER keeps domestic currency (HUF) cash accounts for brokerage companies. (Commercial banks currently must have their cash accounts with the National Bank of Hungary. They are only allowed to have collateral cash accounts with KELER.) These accounts are not only „cash memorandum” accounts, they serve like current accounts with commercial banks, but with certain restriction. (i.e.: the cash balance cannot be deposited for any fixed period)

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

The participants bear the deposit risk of KELER. We note that KELER by law can invest in government securities only.

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

KELER provides an intra-day/overnight overdraft facility for making settlement even more secure (an additional contractual agreement is needed between KELER and the respective

participant). This facility can only be permitted in case the participant provides sufficient government securities collateral in the form of a repo transaction with the CSD. The overdraft could only be extended to the limit defined by the risk management and the treasury of KELER.

KELER does not advance funds to its participants.

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

KELER operates a well established automatic mechanism for these purposes. Such credit extensions are overnight or more typically intra-day transactions. There are cases when KELER agrees in a longer period (maximum 3 business days) with the participant, but exclusively in case the participant provides sufficient collateral in government securities. These credit extensions typically last for 1 business day.

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.

Exchange settlement is based on a multilateral DVP arrangement in accordance with the features of Model 3 (net securities and net cash). Settlement of cash and securities take place simultaneously in a morning settlement batch.

Off-exchange settlement is processed in a RTGS DVP facility corresponding to Model 1 (gross securities and gross cash). The settlement of securities and funds transfers take place simultaneously.

1. Are funds transfers and securities transfers processed within the same system or in different systems? If different, how they are linked? Funds and securities transfers are processed in different systems. KELER operates separate systems for securities and cash while the domestic cash clearing system operated by the central bank is also involved. The systems are fully linked through interface.

(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.

Exchange settlement is on a multilateral net basis. Off-exchange settlement is an RTGS DVP arrangement, where each securities transfer is linked to a specific funds transfer.

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

No, KELER does not split any transactions into multiple transactions and does not require the participants to do so.

2. When do securities and funds transfers become final?

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

Securities transfers become final and irrevocable upon their booking in KELER’s system.

(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 of securities?

Funds transfers within KELER become final and irrevocable at the time of their booking either in KELER or in the NBH.

Real-time processing allows for the same-day re-transfer of funds.

(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.

No.

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

Provisional transfers are not applicable to KELER. Notification is sent upon finality.

F. Does the SSS itself „guarantee” funds or securities transfers?

KELER as central counterparty guarantees settlement to both cash and derivative market transactions concluded on the Exchange. KELER's CCP activity is supported by complex risk management mechanisms featuring individual margining and collective guarantee funds. The guarantee is backed by KELER's own resources as last resort..

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

The guarantee is applicable exclusively to on-exchange transactions. The undertaking of the CCP guarantee is established by the end-of-day trade confirmations provided by KELER.

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

With the guarantee KELER undertakes the obligation to financially settle failed trades, in the worst case against its own resources, on behalf of the defaulting clearing member.

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

The guarantee is featured in KELER's GBC.

VI. Default procedures

Events of default are among the most difficult and stressful occurrences that market participants and SSSs may experience. The IOSCO Report underscores the need for transparency in the area of default procedures on the grounds that it will provide more certainty in the operation of critical market mechanism during these stressful events, and thereby reduce the risk that a single default will cause further disruptions.

Because the definition of a default event may differ across systems, the IOSCO Report recommends disclosure with regard to the circumstances in which action may be taken, as well as who may take it, and the scope of the actions that may be taken. In some cases, the term „default” may not be used by the SSS in its rules and procedures or in contracts with its participants. In these instances, SSSs should attempt to spell out for their participants both how they would address the insolvency of a participant and any other circumstances in which they would initiate exceptional measures to fulfil settlement or other obligations to their participants.

In this regard, this section attempts to lay out in one place the available resources of the SSS with respect to meeting obligations in the event of a default or other events that would trigger exceptional measures. It is important for participants to understand that these resources are as well as the order in which they will be accessed. The questions also address the possibility that securities or funds transfers will be unwound by the SSS. Because unwinds are a way to reallocate liquidity pressures and credit losses, it is vital that participants understand all the possible circumstances in which an unwind can occur.

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?

In case of an insolvency of a participant, the Hungarian Financial Supervisory Authority would decide the relevant default procedures to be implemented that might include freezing of securities and exchange cash accounts, suspension of trading license etc.

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

In case of Exchange settlements, a failure to deliver securities or make payment on time would trigger default procedures according to the GBC of KELER. In off-exchange settlement processing there is no central guarantee and fails management.

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.

KELER's GBC is fairly detailed about the course of actions to be followed in case of a non-fulfilment of settlement obligations by any of the participants. No discretion is given. In case further procedures should be taken, it is the Hungarian Financial Supervisory Authority that holds responsibility.

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?

Securities default

In Exchange clearing and settlement if securities are unavailable for settlement on the dedicated house and client accounts of a clearing member by deadline (SD 11:30) standard fails management mechanism is launched.

KELER will first attempt to use what are known as power mechanisms. Should they work, i.e. the required securities are credited to the technical accounts of each member, DVP settlement is performed by multiple netting of the participants. If debiting the client exchange settlement account of a member fails (customer default), and the required securities are available on the house account maintained for exchange settlement by the given member, KELER will automatically transfer the securities to credit the client account as the first step of the power mechanism. That is to say, if a customer is in default the (freely available) securities of the respective clearing member will be used. If the securities balance on the house account of a member is insufficient, KELER will attempt to access the required volume of securities through automatic securities pool-lending. If KELER finds that the shortfall of a defaulting member on a particular day can be covered by automatic securities lending, the required volume of securities will be credited to the technical settlement account of the particular member. In the event KELER detects a shortage of securities even after the described power mechanisms are applied as part of multiple netting, the net securities shortage will be removed from the settlement cycle and the multiple netting process will run after selecting the non-defaulting member. We must note that the lending pool has been historically empty.

If the default cannot be covered by power mechanisms the defaulting participant is immediately charged with a penalty of HUF 50,000 as KELER fee. Then the defaulting seller is given until SD+2 to deliver the securities but only if additional collateral equal to 120% of the value of the default is pledged. As a next step KELER will select the non-defaulting buyers from clearing members with a net buying position according to a set of predefined rules. The selection of buyers will depend on the size of the net buying position in respect to the undelivered securities. During selection, KELER starts with the largest house account position and progresses towards the smallest customer account position. The respective clearing members are notified about the result of the selection. KELER will act as a central counterparty, i.e. both the non-defaulting buyer and the defaulting seller will reconcile the subsequent steps of the transaction and will also clear accounts with KELER when the deal is completed.

If the default is still unsettled at 15:00 on SD the non-defaulting buyer is re-credited with the cash amount equal to the value of the default. At the same time the defaulting seller is charged with a penalty of HUF 300,000 with benefit to the selected non-defaulting buyer(s).

If the default is still unsettled on SD+2 KELER will initiate a buy-in. If the default turns out to be final and buy-in has also failed the seller will receive cash indemnity at 120% of the closing price of the securities on T day or the closing price on the day proceeding delivery date, whichever is the highest.

Cash default

In Exchange clearing and settlement if cash is unavailable for settlement on the dedicated client account of a clearing member by deadline (SD 11:30) KELER will check the dedicated house account to settle the obligation. If cash is unavailable for settlement on the dedicated house account of the defaulting participant it is immediately charged with a penalty of HUF 300,000 with benefit to the collective guarantee fund. In case of clearing members having exchange settlement cash accounts with KELER (brokers) the member may use a financing (REPO) transaction with KELER to create the liquidity required for settlement. Once the required funds are withdrawn from each of the parties, KELER will run DVP settlement by multiple netting. If a debit item cannot be charged in full, KELER will raise the remaining funds from the Collective Guarantee Fund. If the balance on the Fund is insufficient, KELER will use its own assets. At the same time it will seize collateral pledged by the defaulting member to cover the financial shortage and collect any freely available liquid funds from the member's exchange settlement account. Furthermore forced liquidation of the member's securities collateral will be ordered.

In addition, a defaulting **net seller** must pay the costs incurred. KELER will not charge any penalties or costs if the default arises from a member's failure to receive a part or all of the securities of the same series in the settlement cycle preceding the default in its capacity as selected non-defaulting member.

A defaulting **net buyer** must also pay penalty interest and all costs incurred through the default procedure.

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

See above.

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. KELER would still be expected to meet its obligations to participants including the central counterparty settlement guarantee. The resources include participant collateral, collective guarantee funds, KELER capital.

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).

See above.

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

There are no provisional transfers of securities or funds in KELER, thus no unwind procedures available.

(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?

Bankruptcy or insolvency can be declared by KELER.

Provisional securities or funds transfers are not applicable in KELER's system.

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 can be no such circumstances.

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

Failed transactions do occur in Exchange settlement processing but all have been settled according to KELER's default procedures.

There were two occasions when a participant had become insolvent.

1. Have loss-sharing procedures been invoked?

The collective guarantee fund has been utilized several times but with the exception of the two insolvencies the „overdraft“ is usually settled within same-day.

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

In terms of insolvency, the collective guarantee fund was utilized in both cases and the loss was absorbed by participants and KELER up to the amount of their contribution to the fund. In addition, in one of the cases the collective guarantee fund was only sufficient to cover part of the loss, therefore the rest was absorbed by KELER.

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

In recent years, SSSs have implemented a variety of approaches aimed at satisfying increasing demands for more rapid securities settlements, particularly in the cross-border context. This section focuses on several related issues that can arise in conjunction with these procedures.

The first set of questions in this section relates to the possibility of debit positions in participants' securities accounts at the SSS. Because such positions indicate instances where participants have been allowed to transfer securities that they do not have on deposit at the SSS, they clearly involve substantial risk that the SSS may not be able to obtain the actual securities and complete all necessary settlements. For this reason, it is vital for participants to understand the conditions, if any, under which such debit positions can arise, and what actions the SSS will take to rectify them. The questions also address measures that SSSs can take to reduce or prevent such debit positions.

The existence of a securities lending program at the SSS and the conditions under which securities loans are triggered is another important topic covered by the questions in this section. Participants need to understand both when the SSS will arrange for securities to be lent to them and when securities they hold on deposit at the SSS will be made available for lending to others. The existence and terms of securities lending program may also have implications for the SSS's ability to facilitate settlements in a variety of circumstances, particularly for back-to-back transactions.

Back-to-back transactions were a major focus of the Cross Border Report and involve a pair of transactions that require a counterparty to receive and redeliver the same securities on the same day. They have the major advantage of avoiding unnecessary funding costs by the party buying and on selling the securities.

This practice poses no particular risk when the delivery follows an actual final receipt of the securities, as there is then no risk that this receipt would have to be unwound. Especially in the cross-border context, differences in the timing of settlement cycles or of finality have led to the development of practices whereby SSSs in some circumstances allow on-deliveries under back-to-back transactions before the initial securities receipts are final, in effect extending temporary (often intra-day) securities loans. The questions in this section attempt to clarify the circumstances under which this occurs, so that participants can understand the risks entailed by these practices.

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

From a technical point of view, no real debit balance is allowed in securities accounts at KELER. However, net debit securities position may arise beyond settlement date in Exchange clearing and settlement processing creating failed transaction(s).

1. Under what conditions could such debit positions occur?

In Exchange clearing and settlement processing.

(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.

This will always result in failed transactions. No real debit balance is possible in securities accounts in KELER.

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

Yes, they are detailed in KELER's GBC.

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

In terms of Exchange clearing and settlement net debit securities positions can last two days before KELER forces settlement. Usually, they last for a short period of time within SD.

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

In general, KELER's system does not allow debit balance in securities accounts. With respect to Exchange settlement it is KELER's risk control measures and default procedures that are supposed to protect against default.

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)

Please see VI./B.

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

Participants may only share loss through their contribution to the collective guarantee funds.

(b) Absorption of the loss by the SSS?

KELER undertakes the CCP settlement guarantee backed by its own resources as last resort.

(c) **Other? Please specify.**

Not applicable.

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

KELER currently offers three different securities lending programmes:

- automatic pool lending for fails coverage on the Exchange
- tri-party lending with KELER's intermediation
- KELER as principal borrowing from the lender and lending to the borrower

1. Pool-Based Securities Lending System

KELER operates a pool-based lending system in order to ensure the securities-side performance of the multilateral net settlements of the stock exchange. The pool-based system is anonymous in nature, i.e. neither the lender nor the borrower knows the other party, and the deal between them is established with KELER's participation.

KELER operates the lending system itself, as well as the related system of accounts, keeps the registry of lending deals, evaluates lent securities on a daily basis, and provides collateral management.

It is the free securities of customers as potential lenders offered for the pool-based lending system (i.e. deposited on a pool sub-account) that may be lent. For each customer with a securities account, KELER opens the sub-accounts called "pool proprietary" and "pool customer". By transferring securities to these sub-accounts, the holder of the pool sub-accounts lets KELER know that it wishes to lend securities. To lend securities owned by the accountholder's customers, the lending party must hold the written statement of the owner.

If in the course of stock-exchange multinet settlement the T-day securities deals do not have sufficient securities coverage, KELER automatically launches the lending process and selects the lending party with a random assignment built into the system. It is a fundamental precondition for establishing the loan transaction that an appropriate volume of the given securities should be available in the lending pool.

The borrowing member bears an obligation of providing collateral on the borrowed securities, the fulfilment of which is a fundamental precondition for the establishment of the loan transaction. The collateral may be created in the form of securities, bank guarantee or cash. KELER evaluates

lent securities daily, and calculates the collateral each day on this basis. The measure of the collateral is 120% of the value of the borrowed securities.

As regards the management of corporate actions concerning the lent securities and involving payment, KELER runs an automatic compensation mechanism.

The maximum duration of the loan is three settlement days, and the borrower may close the transaction any time during this period. If the borrower fails to fulfil an incidentally increased collateral requirement, or fails to return the borrowed securities on the date of maturity of the loan, before the starting of stock-exchange trading hours, KELER shall enforce constrained measures against the borrower.

2. Trilateral Securities Lending

The purpose of trilateral lending is to create loan transactions not controlled by KELER (and primarily not serving to cover short-term defaults, but strategic objectives). This deal is not automatic, or anonymous—the lender and the borrower choose one another. The clearing members conclude the deals after an assessment of the risks, and KELER “only” fills registration and collateral management roles.

Trilateral loans may be closed-ended, or open-ended, and their maximum duration is 365 days.

Any customer with a securities account may participate in lending. To lend securities owned by the lender’s customers, the owner’s written statement must be available.

KELER executes the necessary account operations as agreed by the lender and the borrower, keeps record of the transaction, continuously monitors the level of collateral, and effects incidental compensations connected to the corporate actions of the lent/borrowed securities, and constrained measures connected to defaults. Apart from operation, KELER does not assume any kind of liability in trilateral lending!

The lender forwards the lending offer to KELER via the electronic communications system provided by KELER (KID). The borrower may select the most appropriate lending offer also through its own electronic terminal.

After the offer has been picked, the borrower contacts the person making the offer, and if they are able to agree, both shall forward a loan order (deal ticket) to KELER via the KID system.

KELER matches the loan orders sent by lenders and borrowers. Only matched deals shall be further processed.

As regards matched deals, KELER executes a cover and collateral checking.

After successful cover examination and collateral-making, the loan transaction shall be created, and the customers may continuously monitor their open loan transactions via their KID terminals.

KELER continuously checks the collateral requirement of loan transactions, and in the case of insufficient or excessive coverage originating from potential price changes notifies the parties of this fact.

As regards the management of corporate actions concerning the lent securities and involving payment, KELER runs an automatic compensation mechanism.

Depending on the terms & conditions of the loan, both the lender and the borrower may close the deal any time (even prior to maturity). In the case of default concerning the loan transaction or the collateral, KELER shall withdraw the collateral and rearrange it in favour of the lender in the scope of constrained measures.

3. Securities Loans Concluded with KELER

The Capital Market Act, effective as of 1 January 2002, has made it possible to renew the securities lending mechanisms created earlier, and introduce a lending method different from the previous ones. In this form of lending, KELER participates as a contracting party (as an intermediary between the lender and the borrower, so that the anonymity of the market players shall be guaranteed). To manage the deals, KELER operates a telephone “lending desk”. The system operates with the framework conditions set forth in the General Business Conditions, but the parameters that can be modified in the lending deal ticket make it sufficiently flexible. Against a continuous collateral monitoring, KELER guarantees the performance of properly concluded deals.

Lending transactions are always initiated by the prospective borrower, who forwards to KELER’s Treasury its need to borrow securities. Treasury seeks potential lending partners and requests offers in the shortest time possible. If Treasury has the securities in question (e.g. Hungarian government securities), it may as well lend them from its own portfolio. Treasury selects the offer most favourable for the borrower, and offers it to him.

If the conditions are acceptable for all the participants, Treasury concludes the deal with the original lender on its own account, i.e. it borrows the securities itself, then re-lends them in the scope of a separate transaction to the original borrower.

It is a precondition for the creation of the loan transaction that the conditions of the deal tickets submitted by the parties match, and that the securities to be lent and the required collateral are available in the relevant accounts.

The subject of securities lending must be exchange-listed securities, and the maximum duration of the deal is one year.

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.

Pool lending is an automatic fails coverage mechanism for Exchange settlement processing. Otherwise the management of lending and borrowing is the responsibility of the participants.

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

Participants are notified when the attempt is successful and the deal is created.

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?

Listed securities are eligible for pool lending and it is optional to offer securities to the pool.

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?

Lent securities are identified by KELER with specific participants as lenders who become principal to the transaction.

Any KELER participant may act as lender as soon as the lending agreement with KELER has been signed. Based on the signed agreement pool sub-accounts are opened under the participants main custody account. For more details please refer to the answer given to question 1 in this section.

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

KELER's system does not recognize back-to-back transactions. Neither can transactions be linked together for settlement nor does the system create a chain of transactions that is provisioned at both ends only. Nevertheless, the RTGS platform allows for same day turnaround of securities outside the scope of back-to-back arrangements.

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?

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

Yes, but regardless of any back-to-back arrangements.

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

No. Provisional transfers are not applicable to KELER.

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

No.

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

No. KELER does not recognize such third party guarantees.

(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.

Owing to the fact that only finally received securities are considered to be available and each instruction is settled separately, there are no such standards in place.

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?

Outside the scope of back-to-back arrangements funds can also be settled with same-day value upon finality.

VIII. Risk control measures

This section of the disclosure framework is intended to provide a description of the risk management systems employed by the SSS. Sound risk management encompasses a number of aspects, including assessment of risks and senior management and Board of Directors input into the risk management process, particularly with respect to the review of new products and services by the SSS. Internal and external audits as well as supervisory oversight can also play a vital role in ensuring that the risk management approach is sound and implemented with integrity.

A range of different risks can arise in conjunction with the different services that SSSs may provide. For example, in the course of providing settlement services, the SSS may become exposed to credit, custody or liquidity risks if it either explicitly or implicitly extends funds credit or lends securities to participants. In the provision of custody services, the SSS may take on credit risk if it extends funds to or on behalf of third parties. A variety of risk management approaches to these risks are possible, including in particular the use of collateral or limits on risk exposures. The questions also addresses several other provisions or tools that may be helpful to SSSs in managing or containing the different risks that they face, but are not meant to exhaust all the possible approaches that SSSs may employ.

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

The clearing and settlement of cash and derivatives transactions cause a non-negligible risk of various degrees for KELER. The owners, the Board of Directors and market participants expect KELER to work out and operate a comprehensive solution in order to manage the risks arising in connection with its activities and to provide for safe operation.

The Risk Management Department is responsible for risk management issues. Its risk management related responsibilities cover:

- overview of rules and regulations,
- partners' risk management and compliance,
- margining/guarantee systems,
- analysing multi-market positions-related risk,
- analysing price and market movements and their effect on risk and on the value of collateral,
- management of non-performances,
- treasury risk management - partner and transaction limits,
- operational risk management issues

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

Risk management policies and procedures are subject to approval by the Management Board as well as the Board of Directors. Treasury related risk policies must also be approved by the Asset and Liabilities Committee. Reports prepared by the Risk Management Department are reviewed by the CEO and submitted to the Board of Directors. The operational and IT risk analysis and management systems are subject to approval by the Supervisory Board.

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

In case of new clearing or settlement procedures, risk management is involved already in the developing phase in order to help the developers closing out risk as much as possible. Since business development works close together with risk management, risk management viewpoints can be taken into consideration through the whole development process.

Risk Management Department supervises, in consideration of the underlying risk, the rules covering the activities of KELER and works out proposals for amendments, which correspond to market changes such as product and service development. Approval of new procedures and services is given by the Board of Directors.

In case of new product launch by the exchanges risk management is involved in the product or contract specification process. Risk Management Department designs all clearing and settlement related guarantee mechanisms and sets risk parameters (e.g. initial margin). These are approved by the CEO.

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

Yes, risk management has clear independence from the operational and marketing functions in KELER's organizational structure. It reports directly to the CEO. However, risk management works in close cooperation with business development, in the frame of the Risk Management and Business Development directorate.

4. Does the Board of Directors review risk management or audit committee?

Yes. The Board of Directors reserves the right to approve or veto all risk management procedures. The Internal Audit Department is independent from the risk management and reports to the CEO and the Supervisory Board.

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?

The Internal Audit Department has been operational since the establishment of the company, October 1993. Responsibilities of the independent Internal Audit Department include management of comprehensive audit, definition and application of operation and IT risk analysis; creation and update of issue log database, follow up.

The Hungarian Financial Supervisory Authority is authorized to conduct unscheduled on-site examinations of KELER's books and records, external and internal rules as well as its automated processing systems.

The independent external auditor is responsible for performing the end of year audit of accounts, and it also performs special investigations, as instructed by either the GM or the Supervisory Board.

2. What is the scope of the audit or examination? Please indicate whether and how it addresses the sufficiency of and compliance with internal controls. Please indicate whether and how it addresses the SSS's compliance with its own rules and procedures.

The Internal Audit department produces an annual Audit Plan. This Plan is approved by the GM and the Supervisory Board. Therefore, independence from line management and the Board of Directors is maintained. The internal audit encompasses supervision of compliance with internal and also with the external rules and procedures.

Discussions concerning audit findings are always held with the audited management before the conclusion of the on-site visit. Any views, which the auditee has at this point is always reflected within the audit report. At the conclusion of each audit, a Final report is compiled and distributed to the General Manager and the audited management. Final reports are provided to the Supervisory Board upon request. The findings of the audit are discussed not only before finalizing the report but also during the audit with the head of the audited department. Recommendation of the internal auditor is also discussed and the auditee could respond in writing before the final report. Findings, recommendation and the timing of the implementation are discussed with the General Manager. The implementation is followed up, not only on the next audit but also by a continuous reporting to the General Manager regarding the progress made. All agreements and comments upon findings by the Management Board are documented in the Final report. The auditor and the auditee agree a timetable for the implementation of recommendations.

Compliance with the governing law is adequately examined by the Hungarian Financial Supervisory Authority, which must approve all KELER external regulation before coming into force.

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

Please see VIII./B./2.

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

Please see VIII./B./2.

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

High-risk areas such as funds transfers (SWIFT), payments, depository operations and accounts management should receive, at minimum, annual attention of the internal audit. New services receive several audits in the first year of operation. All audits are performed upon a surprise basis. Automated systems have been audited on several instances by external auditors.

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

No. Audit and examination reports are neither published nor available for public use.

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

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

KELER exclusively values those securities that are accepted as collateral, either for KELER or for a third party organisation KELER provides collateral management services to. KELER collects collateral for its own purposes in connection with its securities clearing and settlement services. In this case valuation is made in accordance with KELER's official Conditions of Acceptance of Collateral.

2. How frequently are securities revalued?

Collateral is revalued daily at the end of each business day on the basis of market prices and haircuts set by KELER. Since continuous price monitoring is established, in case of extreme price movements KELER has the right and the capability to immediately revalue the assets deposited as collateral (intraday collateral revaluation), at the actual market prices. Re-evaluation can be initiated either for particular assets only, or for all assets.

3. What are the sources of securities valuation?

Prices used for securities valuation, and the sources of the respective price information are the followings:

- Hungarian Government Bonds, bonds issued by the Hungarian National Bank, mortgage bonds: daily reference yields / prices of the State Debt Management Agency
- corporate bonds and equities: closing price determined by the Budapest Stock Exchange

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

Please see VIII./C./3.

(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.

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?

Securities and cash required for the settlement of transactions in a manner and to an extent specified in the GBC of KELER under the title of security, and kept separately in the account of the participants, shall be used as security deposit for the settlement of the transactions. Furthermore, in the case of non-performance of the participant KELER deprives the non-performing participant of securities which are not used as collateral in order to ensure settlement.

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

Securities can be used in case a participant does not perform its financial obligation towards KELER in due time.

Own assets of the participants and the assets of their clients are separated, segregated in KELER at all times. Client assets can be used for obligations stemming from client transactions, but participants are not allowed to support their own transactions with them. In addition, of course, own assets can also be used in case of a client's default.

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

1. Does the SSS manages its own collateral system?

Yes. KELER manages its own collateral system. Collateral is held as a beneficiary pledge where KELER is defined as beneficiary.

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

KELER does not share its collateral system with any other SSS.

However, by joining the Hungarian Interbank Payment System (GIRO) and the Hungarian Real-time Gross Settlement System (VIBER) and by the building up of the special collateral management function related thereto, KELER became a background institution of the national payment systems. Participants of the payment systems provide collateral in the form of securities for the National Bank of Hungary through KELER.

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

Yes, the collateral management system works real-time, therefore collateral can be posted and returned in multiple times on the same day. At the time of the return of the collateral (technically it means the release of blocking of the securities as collateral) the remaining collateral must cover the collateral obligation of the participant.

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

In case of cash and derivatives transactions concluded on the Exchange, KELER functions as a CCP, assuming a settlement guarantee for the performance of transactions. Clearing members have to meet KELER's margin calls, and supply collateral in the interest of safe settlement.

For the purpose of making money settlement even more secure, KELER provides an intra-day / overnight overdraft facility. This facility can only be permitted in case the participant provides sufficient collateral. Securities lending services must also be secured by adequate collateral.

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

At present KELER accepts the following financial assets as collateral from its members:

- cash in different currencies,
- bank guarantee in HUF issued by KELER-acceptable banks,
- Hungarian government bonds,
- bonds issued by the Hungarian National Bank,
- mortgage bonds,
- Hungarian corporate bonds admitted to the Exchange,
- Hungarian blue chip equities on the Exchange.

The collateral value attributed to securities is equal to the prior business day's market price, less a haircut as determined by KELER. KELER applies different haircuts for the different asset

categories, as laid down in the Conditions of Acceptance of Collateral. Haircuts for eligible assets range from 2% to 40%.

6. How are collateral valuation methodologies developed and reviewed?

The haircut structure takes into consideration market fluctuations, and the assessment of other risk factors of a particular asset / security. Haircuts are regularly re-assessed based on a Value at Risk methodology, so their continuous prudence is ensured. KELER's CEO is responsible for approving any changes in the established haircut levels, based on the proposal of the Risk Management Department.

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

Collateral policies are described in KELER's General Business Conditions, and detailed rules and valuation parameters are set out the Conditions of Acceptance of Collateral.

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

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

There are no limits applied by KELER regarding securities settlement. However, for the purpose of keeping risk taken by a clearing member at a reasonable level, KELER applies the following types of limits for its clearing members for derivative transactions. In case of violation of these limits KELER is entitled call for extra margin for the member in question or even for a particular client of the member:

- Market concentration limit: determines the number of net open contracts as a percentage of the total open interest on the market that a member or a client of a member may keep without any supplementary margin requirement.
- Equity-based limit: if the margin requirement of a clearing member reaches a determined percentage of the member's equity capital, KELER also applies supplementary margin requirement.

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

Equity-based limit applies to clearing member, but market concentration limit applies both to clearing members and their clients.

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

Limits apply to participants individually.

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)?

No.

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

Compliance is determined ex post in case of position concentration and equity-based limits for derivatives. Transactions cannot be rejected as a result of breaching the limits.

6. How are limit policies developed and reviewed?

Limit policies are developed and periodically reviewed by the Risk Management Department. Policies are subject to approval by the Board of Directors.

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 full extent in KELER's General Business Conditions.

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

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

Each participant has the capability to monitor its own accounts on a real-time basis. KELER has the capacity to monitor all of its participants' accounts, and collateral assets on a real-time basis.

KELER has a real-time price monitoring module into which trading and bid / ask prices are fed from the systems of the Exchange on a continuous basis during the trading day. In case of extreme price movement KELER has the ability and right to revalue the positions of the participants (clearing members), and to call for extra margin during the trading day.

The review of the Plan takes place on a yearly basis, and a specific review is carried out after each major system development.

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

KELER collects information and monitors vital information concerning its participants' operational and financial soundness. In the event of financial inadequacy, Risk Management Department carefully monitors a participant's daily activity, and KELER may exercise its right under the General Business Conditions to limit the participant's access to services.

Depending upon the circumstances, in case of clearing members KELER could increase the collateral requirements (margin). If the clearing member becomes unable to meet the financial criteria of membership detailed in the General Business Conditions (e.g. capital requirement), KELER requests the member to arrange to clear its transactions to another clearing member and itself retire as a member.

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?

The loss-sharing arrangements that KELER maintains (Collective Guarantee Funds) are applicable in case of non-performance.

IX. Operational risks

Operational failures at the SSS could limit participants' ability to access their assets held at the SSS and prevent them from honoring their commitments to others, with potential spillover effects on other payments, clearance, and settlement systems. Furthermore, prolonged problems could reduce or eliminate trading activity with respect to the affected securities, with substantial consequences for market participants.

It is good practice to mitigate operational risks through redundancy and the maintenance of strong internal controls over the operations of the SSS. In the event of an unavoidable problem or natural disaster, the SSS should also have in place a well-rehearsed plan for business continuity that addresses all the business functions and resources that the SSS would need to renew operations.

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 system used by the SSS?

(a) Whole system overall?

KELER is not in the position to disclose information.

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

KELER is not in the position to disclose information.

(c) During critical processing periods?

KELER is not in the position to disclose information.

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

During the past two years KELER recorded six operational problems that were considered significant.

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

In some of these cases, participants experienced intra-day settlement delays but no settlement had failed as a result.

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

Typically, hardware and software problems caused the difficulty.

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

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

KELER's Business Continuity Management is based on its Business Contingency Plan (BCP) as well as on its hot back-up site. The BCP was prepared with the support of an external consultant, KPMG Hungary and it consists of five parts:

- i) general rules
- ii) general threats
- iii) disturbance of critical business processes
- iv) IT resources and contingency infrastructure
- v) disaster recovery

The main objectives of Business Continuity Management are:

- To assure KELER's continuous operation in case of undesirable events (such as catastrophes or smaller improper operations)
- In case of interruption of continuous operation: recovering in the shortest possible time with the smallest possible cost.

2. Is this plan available for review by participants?

The Plan itself is not available for review for the participants.

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

The department responsible for the maintenance of BCP - with the agreement of the internal auditor and the security manager – regularly propose a list of action plans to be tested on department level. In addition, KELER continuously assesses its action plans used in live environment with respect to every real incident that required their use.

The contingency IT infrastructure is also tested regularly.

No exact frequency has been formally determined for these dedicated tests but practice shows approximately annual occurrence. Participants are not involved in the tests.

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

KELER's Business Continuity Management is based on its Business Contingency Plan (BCP) as well as on its hot back-up site. It consists of five parts:

- i) general rules
- ii) general threats
- iii) disturbance of critical business processes
- iv) IT resources and contingency infrastructure
- v) disaster recovery

A significant part of KELER's BCP is dedicated to critical business processes with respect to underlying IT applications. Every possible scenario is covered by a separate action plan that indicates alternative processing methods in case of IT unavailability. In addition, IT has its own action plans for its processes and resources.

The BCP also includes an action plan for unavailability of critical staff members, however it does not protect against the unavailability of the majority of the staff.

KELER's back up facility protects against the unavailability of both building and IT resources.

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

KELER's general recovery time objective is 4 hours.

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)?

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

Regarding the logical access to applications, the management is fully aware of the risks in connection with the sensitive data stored and has issued a well regulated data confidentiality decree and all access rights are also regulated. At least two level access control is in place for each application according to KELER's IT security regulation. Authorisation processes are centralised (ACE authentication) and we use token for fulfil the highest security requirements.

The regulations contain the access rights to facilities, applications and directories containing sensitive data. Different user Ids grant different access rights and modes.

New rights are issued upon request of the head of the relevant department with detailed authorities description required. The request is reviewed by the IT director and the security manager. The IT director -if the request is accepted - will enact the execution (issuing the new rights in appropriate systems). All transactions executed in the system carry the identification of the user. No security violation incident has been recognized up to date.

Regarding external communication, instructions are received from the participants through KELER's electronic communication system (KIS-KELER Internetwork System) or secured fax transmission.

In case of hard copy instructions KELER checks the validity of signatures of the signing parties according to the official list of authorized signatories of the participant for the relevant transaction. In case the electronic communication is used, the electronic signature validation in place and the encryption of data is automatic.

There is a gateway installed between the communication system of KELER and the main processing system, thus preventing direct access.

Additionally the electronic communication system validate all incoming connections by authentication of the communication point.

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

Yes, both the internal and -upon request- the external auditors of KELER perform the audit of internal operational and security controls.

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

Yes, in case of dematerialized security management systems, based on the respective government decree.

D. Does the SSS impose minimum 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?

In all KELER's contracts the SLA is defined the level of which is depends on the nature of the provided service.

In the case of application development KELER defined IT standards required in all contracts for developing applications. It means, the KELER's IT standards is the supplement of contracts.

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

KELER holds liability towards its participants based on their contractual relationship. On the other hand, KELER can claim the third party in such situation. However, the elements of the liability of indemnification must be examined in each case.

Glossary

The following glossary of terms is not intended to provide legally precise definitions for all relevant jurisdictions. Rather, by clarifying the usual meaning of various terms, it is intended as a tool to help in answering the questions in the disclosure framework and in understanding the responses to those questions.

Back-to-back trades: a pair of transactions that requires a counterparty to receive and redeliver the same securities on the same day. The transactions involved may be outright purchases and sales or collateral transactions (repurchase agreements or securities loans). For example, a securities dealer might buy and sell the same securities for the same settlement date in the course of making markets for customers or it might buy securities for inventory and finance the position through a repurchase agreement.

Beneficial ownership/interest: entitlement to receive some or all of the benefits of ownership of a security or a financial instrument (e.g. income, voting rights, power to transfer). Beneficial ownership is usually distinguished from „legal ownership” of a security or a financial instrument.

Bilateral netting: netting between two parties.

Book-entry system: an accounting system that permits the electronic transfer of securities without the movement of certificates.

Bridge: the „bridge” is the name commonly used for the link between Euroclear and Cedel that permits cross-system settlement of a trade between a participant in one ICSD and a participant in the other ICSD.

Cash correspondents: banks (or similar institutions) used by the SSS to make or receive payments.

Cash deposit risk: the credit risk associated with the holding of funds with an intermediary for the purpose of settling securities transactions.

Cash memorandum accounts: records kept by the SSS of the funds due to be paid to or received by participants in conjunction with their securities settlements; the records are for information purposes only and do not represent legal claims or liabilities between the SSS and its participants.

Central securities depository (CSD): an institution for holding securities which enables securities transactions to be processed by means of book entries. Physical securities may be immobilized by the depository or securities may be dematerialized (so that they exist only as electronic records).

Certificate: the document which evidences the undertakings of an issuer of a security or financial instrument.

Chaining: a method used in certain settlement systems for processing transfers. It involves the manipulation of the order in which transfers are processed to increase the number or value of transfers that may be settled with available securities and funds balances (or available credit lines).

Clearance: the term „clearance” has two meanings in the securities markets. It may mean the process of calculating the mutual obligations of market participants, usually on a net basis, for the exchange of securities and money. It may also signify the process of transferring securities on the settlement date, and in this sense the term „clearing system” is sometimes used to refer to securities settlement systems. In this disclosure framework, the term is used only in the first sense.

Collateral: an asset or third party commitment that is accepted by the collateral taker to secure an obligation of the collateral provider vis-à-vis the collateral taker.

Confirmation: the process by which a market participant notifies its customers of the details of a trade and allows the customer to positively affirm or question the trade.

Counterparty: one party to a trade.

Credit risk: the risk that a counterparty will not settle an obligation for full value, either when due or at any time thereafter. Credit risk includes replacement cost risk, principal risk and cash deposit risk.

Cross-border settlement: a settlement that takes place in a country other than a country in which one trade counterparty or both are located.

Custodian: an entity, often bank, that safekeeps and administers securities for its customers and that may provide various other services, including clearance and settlement, cash management, foreign exchange and securities lending.

Custody-only link: a link between two SSSs which enables transactions in securities held in SSS1 to be settled using SSS2 (rather than SSS1) when the buyer and seller are both participants in SSS2. Custody-only links do not provide for the transfer of funds between SSS1 and SSS2 and cannot be used to settle transactions between a participant in SSS1 and a participant in SSS2.

Custody risk: the risk of loss of securities held in custody occasioned by the insolvency, negligence or fraudulent action of the custodian or of a sub-custodian.

Customer: a buyer, seller or holder of securities and financial instruments that does not participate directly in a system. A participant’s holdings in a system often include securities and financial instruments of which the participant’s customers are the beneficial owners.

Daylight credit (or daylight overdraft, daylight exposure, intraday credit): credit extended for a period of less than one business day, in a credit transfer system with end-of-day final

settlement, daylight credit is tacitly extended by a receiving participant which accepts and acts on a payment order, even though it will not receive final funds until the end of the business day.

Debit balance: see net debit position.

Default: failure to complete a funds or securities transfer according to its terms for reasons that are not technical or temporary, usually as a result of bankruptcy. Default is usually distinguished from a „failed transaction”.

Delivery: final transfer of a security or financial instrument.

Delivery versus payment: a link between a securities transfer system and a funds transfer system that ensures that delivery occurs if, and only if, payment occurs.

Dematerialisation: the elimination of physical certificates or documents of title which represent ownership of securities so that securities exist only as accounting records.

Depository receipt: an instrument issued in one country that establishes an entitlement to a security held in custody in another country.

Domestic settlement: a settlement that takes place in the country in which both counterparties to the trade are located.

Domestic trade: a trade between counterparties located in the same country.

Failed transaction: a securities transaction that does not settle on the contractual settlement date, usually because of technical or temporary difficulties.

Finality risk: the risk that a provisional transfer of funds or securities will be rescinded.

Final transfer: an irrevocable and unconditional transfer which effects a discharge of the obligation to make the transfer. The terms „delivery” and „payment” are each defined as a final transfer. See provisional transfer.

Forced settlement: securities or funds settlement that is either mandated or enforced by the actions of a third party.

Global custodian: a custodian that provides its customers with custody services in respect of securities traded and settled not only in the country in which the custodian is located but also in numerous other countries throughout the world.

Gridlock: a situation that can arise in a funds or securities transfer system in which the failure of some transfer instructions to be executed (because the necessary funds or securities balances are unavailable) prevents other instructions from being executed on the scheduled date.

Gross settlement system: a transfer system in which the settlement of funds or securities transfer instructions occurs individually (on an instruction-by-instruction basis).

Haircut: the difference between the market value of a security and its collateral value. The haircut is intended to protect a lender of funds or securities from losses owing to declines in collateral values.

Immobilization: placement of certificated securities and financial instruments in a central securities depository to facilitate book-entry transfers.

Internal settlement: a settlement that is effected through transfers of securities and funds on the books of a single intermediary. An internal settlement requires both counterparties to maintain their securities and funds accounts with the same intermediary.

International central securities depository (ICSD) : a central securities depository that settles trades in international securities and in various domestic securities, usually through direct or indirect (through local agents) links to local CSDs.

Irrevocable transfer: a transfer which cannot be revoked by the transferor.

Issuer: the entity that is obligated on a security or financial instrument.

Issuing agent: an institution that acts on behalf of the issuer of securities in distributing the securities and in realising the proceeds thereof for the benefit of the issuer.

Legal ownership: recognition in law as the owner of a security or financial instrument.

Legal risk: the risk of loss because of the unexpected application of a law or regulation or because a contract or other right cannot be enforced.

Liquidity risk: the risk that a counterparty will not settle an obligation for full value when due, but on some unspecified date thereafter.

Local agent: a custodian that provides custody services for securities traded and settled in the country in which it is located to trade counterparties and settlement intermediaries located in other countries (non-residents).

Local custodian: a custodian that provides custody services for securities traded and settled in the country in which the custodian is located. See global custodian.

Loss-sharing agreement: an agreement among participants in a clearing or settlement system regarding the allocation of any losses arising from the default of a participant in the system or of the system itself.

Loss-sharing pools: cash, securities or possibly other assets that are provided by the participants in advance and are held by the system to ensure that commitments arising from loss-sharing agreements can be met.

Marking to market: the practice of revaluing securities and financial instruments using current market prices. In some cases unsettled contracts to purchase and sell securities are marked to market and the counterparty with an as yet unrealized loss on the contract is required to transfer funds or securities equal to the value of the loss to the other counterparty. See variation margin.

Matching (or comparison, checking): the process for comparing the trade or settlement details provided by counterparties to ensure that they agree with respect to the terms of the transaction. Settlement instructions that have been successfully matched between counterparties are referred to as matched settlement instructions. In some securities settlements systems, penalties may apply to participants that unilaterally revoke matched settlement instructions. In other systems, unilateral revocation of matched settlement instructions may not be possible.

Member: in this disclosure framework, the term is used synonymously with participant. See participant.

Multilateral netting: netting among more than two parties.

Net credit or net debit position: a participant's net credit or net debit position in funds or in a particular security is the sum of all the transfers it has received up to a particular time less the transfers it has sent; if this sum is positive, the participant is in a net credit position, if the sum is negative, it is a net debit position. The net credit or net debit position at settlement time is called the net settlement position. These positions may be calculated on a bilateral or multilateral basis.

Net settlement: a settlement in which a number of transactions between or among counterparties are settled on a net basis.

Netting: an agreed offsetting of mutual positions or obligations by trading partners or participants in a system. The netting reduces a large number of individual positions or obligations to a smaller number of positions. Netting may take several forms which have varying degrees of legal enforceability in the event of default of one of the parties.

Nominee: a person or entity named by another to act on his behalf. A nominee is commonly used in a securities transaction to obtain registration and legal ownership of a security.

Obligation: a duty imposed by contract or law. It is also used to describe a security or financial instrument, such as a bond or promissory note, which contains the issuer's undertaking to pay the owner.

Omnibus customer account: an account in which the securities held by the participant on behalf of all (or at least several) of its customers are kept. See also proprietary account, segregation.

Participant: a party which participates in a system. This generic term refers to an institution which is identified by the system and is allowed to send transfer instructions directly to the system or which is directly bound by the rules governing that system.

Paying agent: an institution that, acting on behalf of an issuer, makes payments to holders of securities (e.g. payments of interest or principal).

Payment: the satisfaction and discharge of a monetary obligation by the debtor's final transfer of a claim on a party agreed to by the creditor. Typically, the party is a central bank or a commercial bank.

Position netting: the netting of instructions in respect of obligations between two or more parties which neither satisfies nor discharges those original obligations. (Also referred to as payment netting in the case of payment instructions).

Pre-matching process: process for comparison of trade or settlement information between counterparties that occurs before other matching or comparison procedures. Generally, pre-matching does not bind counterparties as matching can do.

Principal risk: the risk that the seller of a security delivers a security but does not receive payment or that the buyer of a security makes payment but does not receive delivery. In this event, the full principal value of the securities or funds transferred is at risk.

Proprietary accounts: an account in which a participant holds only those securities it is holding on its own behalf (as opposed to those securities it is holding on behalf of its customers). See also omnibus customer account, segregation.

Provisional transfer: a conditional transfer in which one or more parties retain the right by law or agreement to rescind the transfer.

Real time: the processing of instructions on an individual basis at the time they are received rather than at some later time.

Registration: the listing of ownership of securities in the records of the issuer. This task is often performed by an official registrar/transfer agent.

Replacement cost risk: the risk that a counterparty to an outstanding transaction for completion at a future date will fail to perform on the settlement date. This failure may leave the solvent party with an unhedged or open market position or deny the solvent party unrealised gains on the position. The resulting exposure is the cost of replacing, at current market prices, the original transaction.

Repurchase agreement (repo): a contract to sell and subsequently repurchase securities at a specified date and price. Also known as an RP or buyback agreement.

Rolling settlement: a situation in which a settlement of securities transactions takes place each day, the settlement of an individual transaction taking place a given number of days after the deal has been struck. This is in contrast to a situation in which settlement takes place only on certain days -for example, once a week or once a month- and the settlement of an individual transaction takes place on the next settlement day (or sometimes the next but one settlement day) following the day the deal is struck.

Same-day funds: money balances that the recipient has a right to transfer or withdraw from an account on the day of receipt.

Securities borrowing and lending programme: a facility whereby a loan of securities is made to facilitate timely fulfilment of settlement obligations.

Securities depository: see central securities depository (CSD).

Securities settlement system (SSS): a system in which the settlement of the securities takes place. Often the SSS is a CSD.

Segregation: optional or compulsory separation of the securities held by a participant on its own behalf from those held on behalf of its customers. See also omnibus customer account, proprietary account.

Self-collateralising: an arrangement whereby securities being transferred can be used as collateral to secure risks involved in the transfer process.

Settlement: the completion of a transaction, wherein the seller transfers securities or financial instruments to the buyer and the buyer transfers money to the seller.

Settlement date: the date on which the parties to a securities transaction agree that settlement is to take place. The intended date is sometimes referred to as the contractual settlement date.

Settlement interval: the amount of time that elapses between the trade date (T) and the settlement date (S). Typically measured relative to the trade date, e.g. if three days elapse, the settlement interval is T+3.

Settlement risk: general term used to designate the risk that settlement in a transfer system will not take place as expected. This risk may comprise both credit and liquidity risk.

Sub-custodian: where one custodian (e.g. a global custodian) holds its securities through another custodian (e.g. a local custodian), the latter is known as a sub-custodian.

Substitution: the process of amending a contract between two parties so that a third party is interposed as an intermediary creditor/debtor between the two parties and the original contract between the two parties is satisfied and discharged.

Systemic risk: the risk that the inability of one institution to meet its obligations when due will cause other institutions to be unable to meet their obligations when due.

Trade date: the date on which a trade/bargain is executed.

Trade-for-trade (gross) settlement: a settlement in which a number of transactions between counterparties are settled individually.

Trade matching: see matching.

Trade netting: a legally enforceable consolidation and offsetting of individual trades into net amounts of securities and money due between trading partners or among members of a clearing system. A netting of trades which is not legally enforceable is a position netting.

Transfer: an act which transmits or creates an interest in a security, a financial instrument or money.

Unwind: a procedure followed in a certain clearing and settlement systems in which transfers of securities and funds are settled on a net basis, at the end of the processing cycle, with all transfers provisional until all participants have discharged their settlement obligations. If a participant fails to settle, some or all of the provisional transfers involving that participant are deleted from the system and the settlement obligations from the remaining transfers are then recalculated. Such a procedure has the effect of allocating liquidity pressures and losses from the failure to settle to the counterparties of the participant that fails to settle. Unwinds can be distinguished from debits to securities accounts that do not imply the original transfer is rescinded (e.g. in cases where securities are discovered to be forged or stolen).

Variation margin: the amount which is paid by a counterparty to reduce replacement cost exposures resulting from changes in market prices, following the revaluation of securities or financial instruments that are the subject of unsettled trades.

Zero-hour rule: a provision in the insolvency law of some securities whereby a bankruptcy or similar procedure declared by a court during the day is considered to have been declared at 0.00 a.m. of the same day. This generally has the effect of retroactively rendering ineffective all transactions of the closed institution that have taken place after 0.00 a.m. on trade date.