STANDARDS FOR THE USE OF EU SECURITIES SETTLEMENT SYSTEMS IN ESCB CREDIT OPERATIONS

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INTRODUCTION

Central banks are concerned about the financial soundness of securities clearance and settlement arrangements because any disturbance affecting settlement in securities markets has the potential to spread to payment systems and to the financial sector in general. At the EU level the requirements for the implementation of the single monetary policy and of the TARGET system for Stage Three of EMU give additional cause for concern. In particular, the relations between securities settlement systems (SSSs) and monetary policy and payment systems in Stage Three stem from Article 18 of the Statute of the European System of Central Banks (ESCB) and of the European Central Bank (ECB), according to which ESCB lending operations must be based on adequate collateral.

Within this framework, special attention has been paid to the settlement procedures for those debt instruments which will be eligible for collateralising the monetary policy and payment system operations of the ESCB. In particular, there is a need to ensure that ESCB credit operations are conducted according to procedures which will: (i) prevent the central banks from assuming inappropriate risks in conducting monetary policy operations; and (ii) ensure the same level of safety for all central banks' operations throughout the European Union, regardless of the settlement method.

The objective of the standards is to limit the risks to which the ESCB will be exposed in settling its credit operations, which, according to its Statute, must be based on adequate collateral. The ESCB will thus assess the securities settlement systems used by the ESCB in that respect, in the light of the standards set out in the report. The standards are not intended to reflect aspects of the oversight or supervision of SSSs. In defining standards, the EMI and the EU NCBs benefited from discussions with other regulatory authorities, especially the IOSCO, the G-10 central banks and market participants, in particular operators of securities settlement systems.

The EMI Council set out the following standards as preconditions for the use of SSSs by the ESCB in Stage Three of EMU:

Standard 1: Legal soundness.

All securities settlement systems (SSSs) and the links between such systems must have a sound legal basis, ensuring that the settlement of payment and securities transfers is final and must provide for adequate protection of the rights of the NCBs and the ECB in respect of securities held on their accounts in such systems.

Standard 2: Settlement in central bank money.

SSSs must use central bank money for the delivery versus payment (DvP) settlement of ESCB credit operations.

Standard 3: No undue custody risk.

To limit custody risk as much as possible, SSSs must have a unique and direct relationship with the issuer or a direct link with an SSS which has this relationship. Where use is made of a depository, the SSS which has a direct link with the depository of the global or individual certificates shall be regarded as having a direct and unique relationship with the issuer, provided that there are adequate safeguards against custody risk. Links must have reconciliation procedures for balances at least once a day. All EU SSSs should permit direct access appropriately to all other EU SSSs which meet these standards and other relevant requirements.

Standard 4: Regulation and/or control by competent authorities.

An SSS or a linkage between SSSs that is not subject to regulation and/or control by the competent authorities must not be used by NCBs.

Standard 5: Transparency of risks and conditions for participation in a system.

SSS operators must provide the NCBs with an insight into the potential risks of the settlement of securities (e.g. they must provide timely, orderly and reliable information about the potential risks resulting from participation in the system). Access and exit criteria for participation in the SSS must be objective and public. In this respect, the SSSs' full response to the G-10 - IOSCO disclosure framework for SSSs must be readily available.

Standard 6: Risk management procedures.

SSSs must adopt risk management measures as appropriate to the individual system, in order to cope with the effects of a default of participants. SSSs must be structured and operate in such a way as to avoid or, if not possible, to minimise any conflict of interest possibly arising from their other operations.

Standard 7: Intraday finality of settlement.

SSSs must provide facilities to settle certain ESCB operations (those involving intraday and overnight credit) with intraday finality (i.e. settlement that cannot be reversed or unwound). SSSs must not expose NCBs to other sources of settlement risk when they are settling operations with counterparties in an SSS and/or via linked arrangements. SSSs used for the settlement of central bank transactions shall have facilities in place by 2002 to allow the option of intraday DvP settlement in central bank money. This may take the form of real-time gross settlement, or a series of batch processes with intraday finality.

Standard 8: Operating hours and days.

The operating hours and opening days of SSSs must be in compliance with NCBs' requirements for the TARGET system and for the cross-border use of eligible securities included in the tier one and tier two lists.

Standard 9: Operational reliability of technical systems and availability of adequate backup facilities. All SSSs must ensure the operational reliability of technical systems and the availability of backup facilities capable of completing daily processing requirements.

All these standards must be met before the start of Stage Three of EMU (i.e. 1 January 1999), with the exception of the requirement for intraday delivery versus payment settlement facilities (second part of Standard 7) which is to be implemented by 1 January 2002.

The EMI and the NCBs will assess existing systems and their links against these standards. This will enable the EMI to compile a list of SSSs to be used for central bank credit operations, which will be published by the ECB. If an SSS does not meet the requirements of the standards the former may be used, possibly on a limited basis, only on condition that adequate measures are adopted against risks until the standards have been implemented in full.

The report is divided into three chapters. The first chapter recalls the policy objectives of the ESCB in the field of SSSs. Chapter 2 sets out the common standards for SSSs, as well as for the links between them. The last chapter summarises the main conclusions, the recommendations and the follow-up work.

Three annexes are attached to the report. Annex 1 describes the main risks in the field of securities settlement systems, Annex 2 sets out the services that SSS offer and Annex 3 provides a Glossary defining the more technical terms included in the report.

1. POLICY OBJECTIVES

Central banks are concerned about the financial soundness of securities clearance and settlement arrangements because they perceive that any disturbance affecting settlement in securities markets has the potential to spread to payment systems and to the financial sector in general. Recent reports prepared by the Bank for International Settlements (BIS) have highlighted important developments in securities markets and their implications for settlement risks. The daily volume of settlements has grown dramatically over the past few years in most EU Member States, to a large extent as a result of the increasing use of repurchase agreements.

At the EU level, the requirements for the implementation of the single monetary policy and of the TARGET system for Stage Three of EMU give additional cause for concern. In particular, the relations between securities settlement systems (SSSs) and monetary policy and payment systems in Stage Three stem from Article 18 of the Statute of the European System of Central Banks (ESCB) and the European Central Bank (ECB), which states that "the ECB and the national central banks may (...)conduct credit operations with credit institutions and other market participants, with lending being based on adequate collateral". Within this framework, a broad list of eligible assets for collateralising central bank operations has been defined by the EMI and the NCBs. All of the assets listed may be used by counterparties on a cross-border basis with the exception of a possible restriction on foreign assets.[1]

Three major policy objectives are being pursued by the EMI/ECB and the NCBs in the field of SSSs:

1) the efficient and safe execution of central bank credit operations;
2) the smooth functioning of payment systems and the stability of the financial sector;
3) the smooth functioning of the Single Market.

This chapter elaborates on the three main objectives mentioned above. However, the standards address the first objective more specifically. Given the time constraints and the long lead times required to make possible changes to the existing infrastructure, it was important to focus on the requirements of the single monetary policy and payment systems at the start of Stage Three, the preparation of which will be imperative before the start of EMU. The other objectives will be considered as part of further work to be carried out by the EMI and the NCBs in order to ensure that there is an adequate framework for the oversight of SSSs. Therefore, the nine standards in this report refer only to those SSSs which the ESCB will use for the settlement of those instruments which will be eligible for collateralising its monetary policy and intraday credit operations.

[1] "The Single Monetary Policy in Stage Three: General documentation on ESCB monetary policy instruments and procedures", EMI, September 1997.

1.1 The efficient and safe execution of central bank credit operations

Within the framework of Article 18 of the Statute of the ESCB/ECB, the EMI and the NCBs, in selecting instruments and defining procedures for the conduct of the single monetary policy and in seeking to ensure the smooth functioning of the TARGET system in Stage Three of EMU, have paid special attention to the settlement procedures of debt instruments which will be eligible for collateralising the monetary policy and payment systems operations of the ESCB. The implementation of the single monetary policy and the provision of intraday credit to participants in payment systems will call for the relevant securities settlement systems to be capable of ensuring: 1) reliable links between the ESCB and a broad range of counterparties; 2) speedy, smooth and safe transactions; and 3) safe and reliable procedures for the cross-border use of eligible assets (e.g. reliable links between SSSs).

In particular, the EMI and the NCBs must ensure that central bank credit is granted through procedures which will: (i) prevent the central banks from assuming inappropriate risks in conducting monetary policy operations; and (ii) ensure the same level of safety for all central banks' operations throughout the European Union, regardless of the settlement method.

In this respect, the primary objective of the EMI/ECB and the NCBs is the establishment of benchmark criteria for assessing the soundness of those SSSs wishing to qualify for involvement in collateralised ESCB operations. This is particularly important with regard to the transfer, settlement and custody of securities, and the legal and technical environment in which such SSSs operate.

Moreover, most NCBs are currently acting as settlement banks for SSSs and some of them have been entrusted with the task of the oversight of SSSs. These operational and oversight functions have provided justification for the more active involvement of NCBs in this area.

1.2 The smooth functioning of payment systems and the stability of the financial sector

The financial soundness of securities settlement arrangements is a prerequisite for the smooth functioning of payment systems to the extent that any disturbance affecting settlement in securities markets has the potential to spread to payment systems and to the financial sector in general.

The basis for ESCB work in the field of payment systems in Stage Three is laid down in Article 105 of the Treaty and in Article 3 of the Statute of the ESCB/ECB, as annexed to the Treaty. Among the basic tasks of the ESCB, these include that of promoting "the smooth operation of payment systems". Article 22 of the Statute of the ESCB/ECB also states that the "ECB and national central banks may provide facilities, and the ECB may make regulations, to ensure efficient and sound clearing and payment systems within the Community and with other countries".

In particular, two issues are of direct concern to the ESCB.

First, settlement problems in securities transactions could be exported to payment systems, for example in the case of major liquidity problems caused by a settlement failure. In order to protect the payment systems against this form of contamination, SSSs should be able to settle in any circumstances and should be operationally viable.

Second, payment systems increasingly need adequate settlement procedures for securities which are used as collateral against central bank (but also interbank) intraday and overnight credit. Therefore, to a large extent, the smooth functioning of payment systems depends on the existence of sound SSSs.

1.3 The smooth functioning of the Single Market

It would be difficult to ensure the efficient transfer of securities and the collateralisation of payment and monetary policy operations following the introduction of the single currency in the absence of a well-developed and integrated securities market. Significant steps in this direction have already been taken with the adoption of the relevant Community Directives.

The increase in the level of competition between market operators introduced by Community legislation, which will be increased even further once the euro is introduced, will undoubtedly lead to an increase in the efficiency of operators, including SSSs. It may also add to the level of risk accepted by operators as they seek to improve their competitive position.

In this context, the definition by the EMI of a set of common standards for SSSs could be expected to contribute to creating an efficient market. In addition, the promotion of these standards throughout the Community could make the EU a more attractive location for investors (both EU and non-EU), with the cross-border use of securities developing through safe procedures at SSSs.

2. STANDARDS FOR SECURITIES SETTLEMENT SYSTEMS

2.1 Scope of the application of the standards

Although private sector SSSs in many EU countries are subject to authorisation and regulation by public bodies, there are at present no common internationally agreed standards applied by regulators in this field. Nor have central banks developed standards to apply to SSSs (the standards published in the November 1990 Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries so called “Lamfalussy standards”, although potentially applicable to securities settlement, apply in fact in full only to interbank netting schemes). Private sector initiatives, chiefly the recommendations published by the G-30 in 1989 (and revised by the International Society of Securities Administration in 1996), have helped to raise standards in practice, including in the area of DvP, but they are not mandatory.

In order to protect the ESCB as much as possible against those risks involved in the domestic as well as in the cross-border settlement of securities transactions, the EMI has decided to prepare and release standards for the EU SSSs which draws on the overview of risks in the field of SSS annexed to this report. SSSs may need some time to implement these standards, and in this report the EMI proposes deadlines/timetables for the smooth integration of SSSs in to this framework.

These standards will be applied to all EU SSS procedures which are used by NCBs to settle transactions in any eligible securities of the tier one and two lists. In particular:

- domestic SSSs;
- ICSDs;
- the wide variety of existing and planned arrangements and links between SSSs.

In addition, NCBs will consider applying the standards to settlement systems that are not used in the settlement of ESCB operations but which settle their cash leg in TARGET: in such cases those standards that relate specifically to requirements arising from NCB operations will clearly not be applied.

It is important to set generally applicable standards against which not only domestic but also international schemes and links between SSSs can be assessed. This would ensure that NCBs will as far as possible not incur any greater risks when using collateral cross-border than when using collateral at the domestic level.

2.2 Standards

Standard 1: Legal soundness

All securities settlement systems (SSS) and the links between such systems must have a sound legal basis, ensuring that the settlement of payment and securities transfers is final, and must provide for adequate protection for the rights of the NCBs and the ECB in respect of securities held in their accounts in such systems.

From the start of Stage Three, central banks will consider the following aspects of legal soundness in particular so as to assess whether the legal arrangements applicable to SSSs comply with this standard as outlined below. In so doing, central banks will take all relevant factors into account in order to make an overall assessment (for instance, the distinction between SSSs managed by private sector operators and SSSs managed by NCBs is relevant for certain items).

- The nature of the entitlement to securities held in the system for the holder

The entitlement to securities held within a system (e.g. in respect of specific securities or securities held on a pooled or fungible basis) should represent a proprietary right[2] as distinct from a mere contractual claim on the settlement system operator; central banks will not participate in systems where the nature of the entitlement, due to the absence of a proprietary right, exposes them to the insolvency of the system operator or of a third party (e.g. a depository). This is of particular importance for links between SSSs where longer chains of securities accounts and several jurisdictions are involved. In order to ensure the effectiveness of such proprietary rights, the legal framework applicable to SSSs should clearly prohibit the unauthorised use by the SSS's operator of securities held within the system. If segregation or identification procedures (whether by the system operator or any other third party, such as a depository or an SSS in the case of links) are necessary for the existence or enforceability of such a proprietary right, then these procedures should be followed.

- Liability for losses/error

The system operator must ensure that the rights and obligations, as well as the liabilities to which he himself or any other third party (e.g. a depository or an SSS in the case of links) is subject are adequate and clearly formulated. This applies in particular to the extent to which NCBs and the ECB are exposed to risks of loss in the event of default, negligence or fraud on the part of the system operator or any other such third party.

[2] The term "proprietary right" is used in a wide sense to describe an ownership interest or a right in the securities which is effective and enforceable not only between the holder of such a right and the SSS/system operator (i.e. inter parties), but also against third parties who are not privy to the contractual arrangements concerning the right in question (i.e. erga omnes).

- Legal basis for settlement finality

Finality of settlement of securities transfers should be legally guaranteed. This means that the transfer of securities between accounts held with an SSS cannot be revoked, rescinded or in any way questioned or challenged by the participant making the order (transferor) or by a third party, even if insolvency proceedings are initiated. Prior to settlement, securities transfer orders should be irrevocable from the time specified in the rules of the relevant SSS. In particular, any "zero hour rule" or similar legal provision which could lead to a decision concerning the initiation of insolvency proceedings having retroactive effect, should not affect SSS settlements which have already taken place. In delivery versus payment (DvP) arrangements, the finality of both payment and securities transfers should be guaranteed. As regards links between SSSs, the systems involved need to show that they have taken steps to find out whether other legal systems recognise the finality of settlement of payment and delivery arrangements, and have taken this into account in the design of the link.

- Enforceability of netting

The enforceability of any netting method used should have a sound legal basis and, in the case of links, should be recognised by all applicable laws.

- Enforceability of risk management measures

Risk management measures and default procedures should not be impeded or suspended and the rights of any settlement agent in respect of issues, such as closing positions, ending participation, realising collateral and drawing under credit lines, should be enforceable.

Central banks will review and consider the legal soundness of the SSS in which they participate and/or through which securities are delivered to them. To this end, central banks may ask system operators to obtain, or may seek to obtain themselves, independent legal opinions on the legal risks involved in participation in a particular system or in accepting particular securities delivered in such a system (e.g. concerning securities which are held in safekeeping abroad or held via a link with a foreign settlement system). Special attention should be paid to the implications of the admission to a given SSS of participants from countries where legal provisions on insolvency, collateral, etc., differ from the relevant provisions under which the system in question operates. Particular attention should also be paid to the legal aspects of holding securities with a custodian in a different jurisdiction and to the setting-up of links with systems in other jurisdictions.

Finally, central banks are also exposed to the risk that securities to which the counterparty does not have proper title are transferred to them in an SSS. The legal provisions applicable to an SSS should cover this

aspect of risk in order to protect NCBs and the ECB as bona fide purchasers or bona fide holders of interests in relation to securities transferred by a non-owner transferor (or a transferor otherwise lacking proper title).

Standard 2: Settlement in central bank money

SSSs must use central bank money for the delivery versus payment (DvP) settlement of ESCB credit operations.

NCBs must not be exposed to settlement bank risk when settling transactions with counterparties in an SSS: where transactions cannot be settled DvP, NCBs will only use systems on a free delivery basis, and then will only use an SSS for the settlement of transactions on a DvP basis when they receive payment, on delivering securities to a counterparty, in central bank money.

Standard 3: No undue custody risks

To limit custody risk as much as possible, SSSs must have a unique and direct relationship with the issuer or a direct link with an SSS which has this relationship. Where use is made of a depository, the SSS which has a direct link with the depository of the global or individual certificates shall be regarded as having a direct and unique relationship with the issuer, provided that there are adequate safeguards against custody risk. Links must have reconciliation procedures for balances at least once a day. All EU SSSs should permit direct access appropriately to all other EU SSSs which meet these standards and other relevant requirements.

Where necessary, central banks will seek special arrangements with an SSS operator to ensure that they do not face custody risk when participating in an SSS involving one or more of the following potential risks pending.

⇨ Risk arising from the unique and direct relationship with the issuer:

Where an SSS has the unique and direct relationship with the issuer, the system operator must have adequate procedures to check that the total amount of securities in participants' accounts is equal to the total amount of securities deposited by the issuer in the SSS.

⇨ Depository risk:

Where an SSS does not have the unique and direct relationship with the issuer but acts only as a depository for securities, the SSS operator must take adequate measures to protect central banks from the risk arising. In the case of a Euro-market issue, when use is made of a depository (common or individual) this may be seen as an unique and direct relationship with the issuer, if and only if the role of this depository for this issue is limited to direct services provided to the SSSs concerned and if there are adequate safeguards (e.g. supervision/control) against custody risk.

Standard 4: Regulation and/or control by competent authorities

An SSS or a linkage between SSSs that is not subject to regulation and/or control by competent authorities must not be used by NCBs.

The EMI feels that there is a need to ensure the financial strength and the management skill , as well as the existence of appropriate risk management activities. The regulatory framework covering these aspects varies across countries and according to the type of SSS. In particular, SSSs which are operated directly by NCBs are, as a rule, not subject to any external regulation but to the internal control procedures of the NCB, whereas other SSSs are normally subject to the regulation and control of the competent authorities: the nature of this regulation depends on institutional factors and the type of activities carried out. The application of this standard is mainly intended to ensure that NCBs do not make use of SSSs which are neither regulated nor controlled.

Standard 5: Transparency of risks and conditions of participation in a system

SSS operators must provide NCBs with an insight into potential risks regarding the settlement of securities (e.g. they must provide timely, orderly and reliable information about potential risks resulting from participation in the system). Access and exit criteria for participation in the SSS must be objective and public. In this respect, SSSs' full response to the G-10/IOSCO disclosure framework for SSSs must be readily available.

For the use of SSSs by NCBs, the ESCB will require SSS services to be regulated and processed with transparency.

The access and exit criteria to be formulated by the SSS must likewise be objective and public. The conditions for participation must be clear and must describe the necessary organisational infrastructure. The exit criteria must be such as to ensure orderly exit without endangering the settlement of claims and liabilities of other participants.

Standard 6: Risk management procedures

SSSs must adopt risk management measures as appropriate to the individual system, in order to cope with effects of a default of participants. SSSs must be structured and operate in such a way as to avoid, or if not possible, to minimise any conflict of interest possibly arising from their other operations.

Securities overdrafts must not be permitted in any SSS. To minimise settlement failures and to avoid gridlocks due to a lack of securities, the SSSs must provide appropriate facilities to limit failures, such as for example:

- an automatic securities lending/borrowing programme;
- guarantee mechanisms which allow a third party to replace the participant who has defaulted.

With reference to payment failure, procedures should be in place in order to avoid the cancellation and/or the unwinding of the settlement cycle, such as for example:

- the use of RTGS procedures for settlement of cash;
- procedures for the collateralisation of debt exposures;
- guarantee mechanisms which allow a third party to replace the participant who has defaulted.

In addition to these examples listed above, loss-sharing agreements which enable losses to be shared between all participants could be considered for minimising the impact of a major failure.

When an SSS performs other activities unrelated to the SSS tasks, these must not expose its participants to risk; if conflicts of interest arise, they must be made transparent and procedures must be put in place to deal with these. If an SSS is acting as principal in its arrangements or facilities (such as a securities lending programme or cash management facilities), it must have the proper risk management procedures in place so that it will minimise exposure to risk.

SSSs must have adequate procedures to deal with bad deliveries - i.e. where forged securities are deposited in the system or where the participant which deposits them does not have good title.

Standard 7: Intraday finality of settlement

SSSs must provide facilities to settle certain ESCB operations (those involving intraday and overnight credit) with intraday finality (i.e. settlement that cannot be reversed or unwound). SSSs must not expose NCBs to other sources of settlement risk when they are settling operations with counterparties in a SSS and/or via linked arrangements. SSSs used for the settlement of central

bank transactions shall have facilities in place by 2002 to allow the option of intraday DvP settlement in central bank money. This may take the form of real-time gross settlement, or a series of batch processes with intraday finality.

As agreed in earlier reports by the EMI,[3] the first requirement (delivery to NCBs with intraday finality) may be met by means of four different operational mechanisms:

- the pre-depositing of securities on operational safe custody accounts held with the central bank;
- net settlement systems with several processing cycles during the day;
- real-time gross settlement systems for securities transactions;
- the intraday free of payment delivery of securities.

As regards links between SSSs, these mechanisms may be extended to include :

- linked net settlement systems with several processing cycles per day, provided that the cycles are synchronised which will ensure that: 1) a cycle can be completed in one system; 2) transaction details are then sent to the second system; and 3) the second system's cycle is completed within the timetable required for NCBs;
- linked real-time gross securities settlement arrangements;
- free of payment delivery of securities, provided that the transfer in the first system is final and unconditional before details are processed by the second system.

The best solution for intraday DvP settlement is the use of RTGS systems. The main advantage of real time gross settlement is to reduce the systemic risk linked to high-value securities settlement. Ideally, SSSs with real-time gross settlement services should be used for all transactions, or at least large-value transactions, that need to be settled in a specified or very short period of time (this is, for example, the case with operations between NCBs and counterparties).

The exclusive use of these procedures could, if certain market conditions prevail and special arrangements are unavailable or insufficient, lead to gridlock in systems with a rapid turnover. In the case of back-to-back or dependent transactions, special batch processing may be used to settle securities transactions where there would be insufficient stock or liquidity to settle the transactions individually.

It is suggested that, as a first step, the requirement for intraday DvP settlement should only apply to central bank transactions. Given the volume of work on EMU and the year 2000, central banks require that this standard should be implemented only by 2002.

[3] See the Report on "Issues related to Securities Settlement Systems in view of Stage Three of EMU" (February 1997).

Standard 8: Operating hours and days

Operating hours and opening days of SSSs must be in compliance with NCBs' requirements for the TARGET system and for the cross-border use of eligible securities included in the tier one and two lists.

At the start of Stage Three the normal TARGET operating hours will be from 7 a.m. to 6 p.m. ECB time[4]. There will be two common closing days for TARGET: Christmas Day and New Year Day. On the other days, the whole TARGET system will be open, although NCBs will have the flexibility to close on national public holidays when required by law or by the banking communities. The Interlinking system will remain open as long as at least two RTGS systems are open. In determining, the operating hours and days of SSSs, these requirements should be taken into account.

The operating timetable of SSSs must enable ESCB counterparties and the NCBs to use the eligible securities on the tier one and two lists transferable through SSSs, on a cross-border basis using the Correspondent Central Banking Model (CCBM). In the case of linked arrangements, system operators must ensure the synchronisation of operating hours for particular processes.

Standard 9: Operational reliability of technical systems and availability of adequate backup facilities.

All SSSs must ensure the operational reliability of technical systems and the availability of backup facilities capable of completing daily processing requirements.

Within the context of EMU, the reliability of SSSs is closely linked to the reliability of the TARGET system, since the unavailability of collateral for monetary policy operations and intraday credit could create problems. It would therefore be advisable for SSSs to ensure in their systems and links a level of operational reliability consistent with that of the TARGET system.

For the operational reliability and availability of hardware, software and communication systems, SSSs must meet the following requirements:

- an analysis of potential threats must have been conducted (including millennium compliance);
- a sound description of the systems must be available;
- provisions must have been made for data management (including backup and audit trails);

[4] In June 1997, the EMI Council agreed that the reference time for TARGET should be "European Central Bank (ECB)" Time, i.e. the time of the place where the ECB is located.

- an emergency plan must be available in the event of system malfunction or breakdowns, defining these situations requiring intervention and the action to be taken and identifying the persons authorised to take such actions;
- an efficient disaster recovery facility must be in place to cope immediately with serious breakdowns;
- the necessary processing capacity must be available;
- procedures must be in place concerning the procurement, development and modification of systems in order to ensure that current production processes are not disturbed and that system modifications are adequately tested before becoming operational;
- measures must have been taken to prevent unauthorised access to systems and the unauthorised use of participants' securities;
- measures must have been taken to safeguard authenticity, integrity, confidentiality and verifiability during the processing, storage and transfer of data (including the exchange of messages).

3. FOLLOW-UP WORK

All the standards must be fulfilled by the start of Stage Three of EMU, the only exception being Standard 7 (intraday DvP settlement) that is proposed to be implemented by 1 January, 2002. To the extent that SSSs are not able to implement the standards, or have not taken the necessary steps to meet them within a reasonable time-frame, they will not be used by the ESCB. For example, an SSS could be used only for domestic issues but not for foreign issues and not for links with other SSSs.

The EMI and the NCBs will now assess existing SSSs and their links against these standards. The conclusions of the assessment will be summarised in a report on the state of compliance of EU SSSs and their links with the standards. This will enable the ECB to compile a list of SSSs to be used for monetary policy operations. The list will be published in the second half of 1998 as indicated in the "General documentation on ESCB monetary policy instruments and procedures".

When necessary and in co-ordination with the EMI/ECB and the NCBs, SSSs will define a development plan to meet the standards and a timetable for its implementation. With the agreement of the ESCB, the NCB of the country in which the SSS is located will have to choose between the following options:

- not using the SSS at all for ESCB operations;
- agreeing a development plan with the SSS with a defined timetable for meeting the standards and using SSS, possibly on a limited basis, only if adequate measures are adopted against risks as long as the plan has not been implemented in full.

Annex 1:

MAIN RISKS IN THE FIELD OF SECURITIES SETTLEMENT

Drawing on the G-10 work, this document briefly lists, on a descriptive basis and for illustration purposes, the main risks involved in domestic as well as in cross-border settlement[5] of securities transactions.

The types and sources of financial and legal risks to counterparties to securities trades are similar to those faced by counterparties to payment transactions and to foreign exchange trades.

A thorough analysis of risks in SSSs has been conducted in the report, prepared by the Committee on Payment and Settlement Systems of the central bank of the Group of Ten countries.[6]

1 Financial risks

Credit risk is defined as the risk that a counterparty will not settle an obligation for full value, either when due or at any time thereafter. Credit risks in the event of a counterparty default include both the risk of loss of unrealised gains on unsettled contracts with the defaulting participant and the risk of securities delivered or payments made to the defaulting counterparty prior to detection of the default.

The risk of loss of unrealised gains is termed **replacement cost risk**. The unrealised gain, if any, on a contract is determined by comparing the market price of the security with the contract price; the seller of security is exposed to a replacement cost loss if the market price is above the contract price. Because future securities price movements are uncertain at the time a trade is initiated, both counterparties face replacement cost risk. The magnitude of this risk is an increasing function of the price volatility of the security and the interval between trade and settlement.

The largest credit risks, however, arise in connection with contracts scheduled to settle on the date on which a counterparty default may occur. On such contracts, the non-defaulting counterparty may be exposed to **principal risk**, that is the risk of loss of the full value of securities or funds that it has transferred to the defaulting counterparty. Both the buyer and the seller of a security may be exposed

[5] In accordance with the G-10 analysis, a cross-border settlement is defined as a securities settlement that takes place in a country other than the country in which one or both the counterparties are located. Under this definition, every cross-border trade results in a cross-border settlement, but cross-border settlement can also result from domestic trades.

[6] See the Report on “Delivery versus Payment in Securities Settlement Systems” (1992) and the report on “Cross-border Securities Settlements” (1995).

to principal risk; the buyer is at risk if it is possible to complete payment but not receive delivery, and the seller is at risk if it is possible to complete delivery but not receive payment.

Both counterparties to a securities trade are also exposed to liquidity risk on the settlement date. **Liquidity risk** is defined as the risk that a counterparty will not settle an obligation for full value when due, but on some unspecified date thereafter. The reason that a counterparty fails to settle may be technical or temporary, in which case the event would be termed a **failed transaction** rather than a default. If so, the counterparty might settle for full value at a later date and no credit loss would be involved. At the point when a settlement failure is detected, however, the counterparty generally cannot determine with certainty whether the event is a default or a failed transaction. As a result, a technical failure may result in a loss of confidence in the counterparty that failed to settle, which would cause its counterparties to withhold settlement with other transactions. Counterparties may be especially likely to take such action if the technical failure occurs during a period when securities prices are changing rapidly and thereby creating doubts about the solvency of securities market participants generally. A failure to settle an obligation to transfer funds is much more likely to result in a loss of confidence than failure to settle an obligation to transfer securities. Securities and securities lending markets are sometimes relatively illiquid and, therefore, a financially sound counterparty may be unable to buy or borrow the securities needed to complete settlement.

Even without such a loss of confidence liquidity risks are a matter of concern. For the seller of a security, liquidity risk is the risk that payment will not be received from the buyer, possibly forcing the seller to borrow funds or to liquidate assets to avoid failing to discharge its own payment obligations on other transactions. For the buyer of securities it is the risk that delivery will not be executed by the seller, possibly forcing the buyer to borrow the security to complete an obligation to delivery it a third party.

In addition to counterparty risks, participants in a securities settlement system may face the risk of **a settlement bank failure**, that is, the failure of the entity that holds the accounts used to make payments for securities. This risk may be eliminated by the use of central bank accounts for transfers. But in many countries, non-bank participants in the securities markets do not have access to central bank accounts, either because it is prohibited by statute or because of a policy decision by the central bank, which may be reluctant to compete with private commercial banks for non-bank customers. If central banks accounts are not available, funds accounts are provided either by the securities transfer system itself or by one or more commercial banks. In these cases, in the event of the settlement bank's failure, participants are exposed to the loss of the value of payments received if the balances involved have not been re-transferred to another bank prior to the failure.

Some systems must also consider the potential consequences of failure of a **guarantor** (either the securities buyer's bank in an assured payment system or the guarantor of all settlement obligations in some other systems). In systems where the system operator or some other entity guarantees the completion of the settlement of transfer instructions executed by the system, the risk of the failure of that guarantor must be considered.

When the SSS does not dematerialise securities or immobilise certificates itself but instead relies on the custody services of third parties (custodians), the **custody risk**, that is the potential loss of the securities in the event that the intermediary becomes insolvent, acts negligently or commits fraud, must be considered. Similarly, when an investor holds its securities through an intermediary, it is exposed to custody risk. Even if there is no risk of loss of the value of the securities held by the custodian in the event of its failure, the ability of participants to transfer the securities (other than to other participants) might temporarily be impaired.

The most important factors determining the degree of custody risk are the accounting practices and safekeeping procedures used by the intermediary. The key to protecting an investor's interest is often the separation (segregation) of its assets from those of the intermediary and any other parties for which it holds securities.

Another issue that is important in a cross-border context is the risks associated with cross-system settlements, that is, **settlement effected through links between securities transfer systems**. These include the direct and indirect links that have been established between CSD and ICSDs. Such cross-systems settlements may involve inefficiencies that derive from the need for the transfers systems to exchange information on whether the two counterparties have the securities and the funds (or access to credit) necessary to complete settlement. Special problems can arise in cross-system settlement when one or both transfer system make provisional transfers of securities that are not final until money settlement is completed later in the day.

Systemic risk is defined as the risk that the inability of one institution to meet its obligations when due will cause other institutions to fail to meet their obligations when due.

2 Legal risks

Participants in securities settlement systems are also exposed to legal risk. This is the risk that there are inadequate legal rules in the relevant jurisdiction to enable interests in securities held via settlement systems to be efficiently and effectively acquired, enforced and transferred. In the absence

of such rules, participants may not be protected against claims of third parties, particularly in the event of the insolvency of an issuer or intermediary.

Legal risks also arise where the law of one jurisdiction does not recognise interests in securities created under the law of another jurisdiction.

ANNEX 2:

SSS SERVICES

An SSS is a system which permits the transfer of securities: either free of payment (free of payment delivery) or against payment.[7]

Different types of services can be offered in the field of securities settlement:

1- **Unique and direct relationship with the issuer of the securities**: this service involves the holding of the securities account for the issuer in the books of the SSS (for dematerialised and immobilised issues the SSS records the total amount of outstanding securities in its books and for physical issues the total amount of deposited securities). The securities of one issue are typically deposited only in one SSS acting as "central point" for this issue (if such an issue can be held and settled in another SSS, then it will be done through this central SSS). The SSS guarantees the safety of the book-entry system by ensuring that there is no loss or creation of securities.

2- **Depository**: where it acts as a depository, an SSS enables participants to deposit with it securities for which the SSS does not have a direct relationship with the issuer; the SSS records the ownership of the securities for its participants and manages the relationship with the SSS that has the direct relationship with the issuer. SSSs have two alternatives in order to manage such issues according to the legal and technical environment:

- a direct link with the SSS which has the unique and direct relationship with the issuer of the issue (i.e. securities issued directly in the books of the SSS or physical certificates representing the amount of securities deposited by its participant and held for safekeeping);
- a indirect link with the SSS which has the unique and direct relationship the issuer of the issue (securities deposited but not issued in the SSS).

3- **Custody**: this service is provided for the participants. It represents the safekeeping and administration of securities and financial instruments on behalf of the participants of the SSS[8].

4- **Securities clearing and settlement**: securities are exchanged between participants of the same SSS or with participants of another SSS via a link. This service can be developed, in general, with matching services for most of the operations to be settled. Each SSS usually offers a DvP mechanism and a free of payment mechanism. The settlement cycle can be with: i) with only one batch per day;

[7] See the definition in the glossary in Annex 3.
[8] See the definition in the glossary in Annex 3.

ii) with more than one batch per day; iii) on a real-time basis; iv) or on a mixed real-time/ batch processing basis. However, settlement processes can be based on netting or gross procedures.

5- **Settlement of the payment leg of operations**: the SSS provides for the effective payment (transfer of cash) of settled operations. The payment can be processed on a gross or on a net basis (or a combination of the two) either directly through central bank accounts or through one or more private settlement banks.

6- **Additional services for issuers**: for instance, the management of information regarding the registration of securities or corporate events. SSSs may also provide services for public authorities such as fiscal agencies (e.g. withholding tax).

7- **Additional services for participants**: these services can include securities accounting matters (segregation facilities, reports, etc.) or corporate events, or facilities for settlement such as securities lending/borrowing services without risk for the SSS, and cash management via the central bank without risk for the SSS (in both cases the SSS acts as an agent). Some other services for participants require the SSS to be a credit institution in cases where it grants cash credit or securities loans (when the SSS acts as principal).

ANNEX 3:

GLOSSARY[9]

Account settlement: a method of settling securities transactions in which transactions executed on more than one trade date are accumulated and settled on a single settlement date.

Advisory netting: see position netting.

Assured payment system (APS): an arrangement in an exchange-for-value system under which completion of timely settlement of a payment instruction is supported by an irrevocable and unconditional commitment from a third party (typically a bank, syndicate of banks or clearing house). See exchange-for-value settlement system.

Back to back transaction: a chain of securities transactions among three or more counterparties involving the purchase and sale of a single security, for settlement on a single date. The most simple back-to-back trade is a pair of transactions in which one party agrees to purchase securities from a second party and then agrees to sell them to a third party.

Bilateral (two-way) Link: a connection between two CSDs that allows the participants of each CSD to settle trades in some or all of the securities of the other CSD. It should be noted that “bilateral” refers to access and not to functionality; a bilateral like may be formed that offers greater functionality in one direction than the other. From the viewpoint of the CSDs, they are operating both inbound and outbound links.

Batch: the transmission or processing of a group of payment orders and/or securities transfer instructions as a set at discrete intervals of time.

Bilateral net settlement system: a settlement system in which participants' bilateral net settlement positions are settled between every bilateral combination of participants.

Bilateral netting: an arrangement between two parties to net their bilateral obligations. The obligations covered by the arrangement may arise from financial contracts, transfers or both. See netting, multilateral netting, net settlement.

Book-entry system: an accounting system that permits the transfer of claims (e.g. securities) without the physical movement of paper documents or certificates. See also dematerialisation, immobilisation.

Call money: a loan contract which is automatically renewed every day unless the lender or the borrower indicates that it wishes the funds to be returned within a short period of time.

Capital risk: see principal risk.

Caps: a risk management arrangement whereby limits are placed on the positions that participants in an interbank funds transfer system can incur during the business day; they may be set by each individual participant or by the body governing the transfer system; they can be set in multilateral net, bilateral net or (less commonly) in gross terms and can be either a credit cap or a debit cap; for example, bilateral net credit caps, set by an individual participant, will constitute a limit on the credit exposure that that participant will accept vis-à-vis each other participant; in contrast, sender net debit caps, which may for example be set by the governing body of the clearing system based on a particular formula, limit the aggregate value of transfers that an individual participant may send to all other participants over and above its incoming transfers. Sender net debit limits may be either collateralised or uncollateralised

Central securities depository (CSD): an entity which holds securities which enables securities transactions to be processed by book entry. Physical securities may be immobilised by the depository or securities may be dematerialised (i.e. so that they exist only as electronic records). In addition to

[9] This glossary is based on the Blue Book Glossary. Some specific definitions concerning SSSs were added.

safekeeping, a central securities depository may incorporate comparison, clearing and settlement functions.

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

Clearing house: a central location or central processing mechanism through which financial institutions agree to exchange payment instructions or other financial obligations (e.g. securities). The institutions settle for items exchanged at a designated time based on the rules and procedures of the clearing house. In some cases, the clearing house may assume significant counterparty, financial or risk management responsibilities for the clearing system. See clearing/clearance, clearing system.

Clearing system: a set of procedures whereby financial institutions present and exchange data and/or documents relating to funds or securities transfers to other financial institutions. The procedures often also include a mechanism for the calculation of participants' bilateral and/or multilateral net positions with a view to facilitating the settlement of their obligations on a net or net net basis. See also netting.

Clearing/Clearance: clearing is the process of transmitting, reconciling and in some cases confirming payment orders or security transfer instructions prior to settlement, possibly including netting of instructions and the establishment of final positions for settlement. In the context of securities markets this process is often referred to as clearance. Sometimes the terms are used (imprecisely) to include settlement.

Close out netting: a special form of netting which occurs following some predefined event such as an event of default. Close-out netting is intended to reduce exposures on open contracts if one party meet certain conditions specified by the contract (e.g. become subject to insolvency procedures) before the settlement date (also referred to as default netting, open contract netting or replacement contract netting)."

Comparison: see matching.

Confirmation: a particular connotation of this widely used term is the process whereby a market participant notifies its counterparties or customers of the details of a trade and, typically, allows them time to affirm or to question the trade.

Correspondent banking: an arrangement under which one bank provides payment and other services to another bank. Payments through correspondents are often executed through reciprocal accounts (so-called nostro and loro accounts), to which standing credit lines may be attached. Correspondent banking services are primarily provided across international boundaries but are also known as agency relationships in some domestic contexts. A 'loro' account is the term used by a correspondent to describe an account held on behalf of foreign bank; the foreign bank would in turn regard this account as its 'nostro' account.

Correspondent central banking model (CCBM): in the CCBM, national central banks would maintain securities accounts with each other. As a result, NCBs would be able to act as local custodians for each other.

Counterparty: the opposite party to a financial transaction, such as a securities trade or swap agreement.

Credit caps: see caps.

Cross-border settlement: a securities settlement that takes place in a country other than the country in which one or both the counterparties are located. Under this definition, every cross-border trade results in a cross-border settlement, but cross-border settlement can also result from domestic trades.

Custody: the safekeeping and administration of securities and financial instruments on behalf of others.

Daylight credit: (or daylight overdraft, daylight exposure, intraday credit): credit extended for a period of less than one business day. Daylight credit may be extended by central banks to even out

mismatches in payments settlements. In a credit transfer system with end-of-day final settlement, daylight credit is tacitly extended by a receiving institution if it accepts and acts on a payment order even though it will not receive final funds until the end of the business day.

Debit caps: see caps.

Debit transfer system (or debit collection system): a funds transfer system in which debit collection orders made or authorised by the payer move from the bank of the payee to the bank of the payer and result in a charge (debit) to the account of the payer; for example, cheque-based systems are typical debit transfer systems.

Debt book-entry system: a computerised system for the issue and the registration of debt securities in book-entry form (see also book-entry system, share book-entry system).

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".

Deletion: a mechanism whereby some or all transfers to/from a defaulting participant are excluded from the settlement process. In a netting scheme, other participants' bilateral and/or multilateral net positions are recalculated. See unwinding.

Delivery: final transfer of a security or financial instrument.

Delivery versus payment system (or DvP, delivery against payment): a mechanism in an exchange-for-value settlement system that ensures that the final transfer of one asset occurs if and only if the final transfer of (an)other asset(s) occurs. Assets could include monetary assets (such as foreign exchange), securities or other financial instruments.

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

Direct debit: a pre-authorised debit on the payer's bank account initiated by the payee.

Direct participant in IFTS: participant in an Interbank Funds Transfer System (IFTS) who is responsible to the settlement agent (or to all other direct participants) for the settlement of his own payments, those of his customers, and those of the indirect participants on whose behalf he is settling.

Discharge: release from a legal obligation imposed by contract or law.

DvP link: a link (either unilateral or bilateral) between CSDs/ICSDs, which allows for the transfer of securities and funds on a delivery versus payment (DvP) basis. In such a link, from the participant's perspective, securities and funds are passed simultaneously between counterparties. From the perspective of the linked CSDs/ICSDs, given current operational constraints, transfer of funds and securities is likely to be neither simultaneous not linked because of timing constraints related to data transfers through the link and dependency on the underlying national payment systems.

End-of-day gross-settlement systems: funds transfer systems in which payment orders are received one by one by the settlement agent during the business day, but in which the final settlement takes place at the end of the day on a one-by-one or an aggregate gross basis. This definition also applies to gross settlement systems in which payments are settled real-time but remain revocable until the end of the day.

Exchange-for-value settlement system: system which involves the exchange of assets, such as money, foreign exchange, securities or other financial instruments, in order to discharge settlement obligations. These systems may use one or more funds transfer systems in order to satisfy the payment obligations that are generated. The links between the exchange of assets and the payment system(s) may be manual or electronic. See delivery versus payment system.

Failed transaction: a transaction (e.g. a funds or securities transfer) that does not settle on time, usually for technical or temporary reasons.

Final (finality): irrevocable and unconditional.

Final settlement: settlement which is irrevocable and unconditional.

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 to include a final transfer.

Funds Transfer Systems (FTS) a formal arrangement, based on private contract or statute law, with multiple membership, common rules and standardised arrangements, for the transmission and settlement of money obligations arising between the members (see IFTS).

Fungibility: a concept that characterises the method of holding securities by a CSD or other financial intermediary in which each of a number of issues of physical or dematerialised securities are held in separate fungible pools. No owner has the right to any particular physical or dematerialised security in a particular pool, but has a right to such amount of physical or dematerialised securities as shown in its account with a CSD or other financial intermediary.

Global Custodian: a custodian bank or trust company that provides its services with respect to securities traded and settled in any of the world's markets.

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 a substantial number of other instructions from other participants from being executed. See also failed transaction, queuing, systemic risk.

Gross settlement system: a transfer system in which the settlement of funds or securities transfers occurs individually on an order-by-order basis according to the rules and procedures of the system, i.e. without netting debits against credits. See real-time gross settlement, net settlement system.

Haircut: the difference between the market value of a security and its collateral value. Haircuts are taken by a lender of funds in order to protect the lender, should the need arise to liquidate the collateral, from losses owing to declines in the market value of the security. See margin.

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

Indirect participant: participant in an IFTS who does not for what ever reason, settle his own payments on a gross or net payment basis and therefore settles them through a direct participant (see direct participant).

Interbank Funds Transfer Systems (IFTS) a funds transfer systems in which most (or all) direct participants are credit institutions (see FTS).

Interlinking: within the TARGET System, Interlinking provides common procedures and the infrastructure which allow payment orders to move from one domestic RTGS system to another domestic RTGS system (see TARGET).

International Central Securities Depository (ICSD): a securities settlement system that clears and settles international securities or cross-border transactions in domestic securities. See "CEDEL" and "Euroclear".

Inter-CSD link: a connection between two domestic CSDs for the purpose of moving securities and/or funds.

Intraday credit: see daylight credit.

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

ISIN: international securities identification number. Such numbers can be assigned to any domestic or international security in accordance with procedures established by the International Standards Organisation.

Issuer: the organisation that is under obligation for a security or financial instrument.

Legal risk: Risks and inconveniences that the whole basis of the collateral arrangement - the establishment and enforceability of collateral - may be subject to challenge. The main legal risks are the following: (i) establishment risk, i.e. the establishment of collateral may be too burdensome from an administrative point of view, given the requirements of a specific credit operation; (ii) realisation risk, i.e. the realisation of collateral may be, particularly in case of insolvency, be subject to waiting periods (moratoria) and/or may be obstructed by third parties (liquidators, courts, other creditors); (iii) custodian risk, i.e. risk of insolvency of the custodian; (iv) conflict of laws risks, due to the fact that "competing" laws of various jurisdictions may be applicable if collateral is provided for in a cross-border context.

Liquidity risk: the risk that a counterparty (or participant in a settlement system) will not settle an obligation for full value when due. Liquidity risk does not imply that a counterparty or participant is insolvent since it may be able to settle the required debit obligations at some unspecified time thereafter.

Links between SSSs: the procedures between two SSSs for the cross-border transfer of securities through book entry process (without physical transfer). In most cases, each SSS have an omnibus account open in the book of the other SSS.

Local custodian: an agent local to the CSD that undertakes the safekeeping and administration of domestic securities for others. In most cases, the agent is a bank that is a member of the CSD and services the needs of foreign investors in securities listed on the CSD.

Loss-sharing rule (or loss-sharing agreement): an agreement between participants in a transfer system or clearing house arrangement regarding the allocation of any loss arising when one or more participants fail to fulfil their obligation: the arrangement stipulates how the loss will be shared among the parties concerned in the event that the agreement is activated.

Margin: margin has at least two meanings. In the futures/commodity markets, margin is a good faith deposit (of money, securities or other financial instruments) required by the futures clearing system to assure performance. In the equities markets, margin is a sum of money deposited by a customer when borrowing money from a broker to purchase shares. The money deposited with the broker is the difference between the purchase value of the shares and the collateral value of the shares. See haircut.

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 unrealised loss on the contract is required to transfer funds or securities equal to the value of the loss to the other counterparty.

Matching (or comparison checking): the process used by market participants before settlement of a transaction to ensure that they agree with respect to the terms of the transaction.

Minimum Standards of the Lamfalussy report (Lamfalussy standards): the six minimum standards for the design and operation of cross-border and multi-currency netting schemes or systems.

I. Netting systems should have a well-founded legal basis under all relevant jurisdictions.

II. Netting scheme participants should have a clear understanding of the impact of the particular scheme on each of the financial risks affected by the netting process.

III. Multilateral netting systems should have clearly-defined procedures for the management of credit risks and liquidity risks which specify the respective responsibilities of the netting provider and the participants. These procedures should also ensure that all parties have both the incentives and the capabilities to manage and contain each of the risks they bear and that limits are placed on the maximum level of credit exposure that can be produced by each participant.

IV. Multilateral netting systems should have objective and publicly-disclosed criteria for admission which permit fair and open access.

V. Multilateral netting systems should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single net-debit position.

VI. All netting schemes should ensure the operational reliability of technical systems and the availability of back-up facilities capable of completing daily processing requirements.

Multidomestic issues: one single issue (with one ISIN code) which is placed, traded and settled as a domestic issue in more than one financial centre. For instance, after the start of Stage III of EMU, it will be the case of issues denominated in euro and placed, traded and settled in all the euro area.

Multilateral net settlement position: the sum of the value of all the transfers a participant in a net settlement system has received during a certain period of time less the value of the transfers made by the participant to all other participants. If the sum is positive, the participant is in a multilateral net credit position; if the sum is negative, the participant is in a multilateral net debit position.

Multilateral net settlement system: a settlement system in which each settling participant settles (typically by means of a single payment or receipt) the multilateral net settlement position which results from the transfers made and received by it, for its own account and on behalf of its customers or non-settling participants for which it is acting. See multilateral netting, multilateral net settlement position, settling participant and direct participant.

Multilateral netting: an arrangement among three or more parties to net their obligations. The obligations covered by the arrangement may arise from financial contracts, transfers or both. The multilateral netting of payment obligations normally takes place in the context of a multilateral net settlement system. See bilateral netting, multilateral net settlement position, multilateral net settlement system.

Mutual exchange of guarantees between central bank: In this model NCBs would provide liquidity against a guarantee from the central bank of the country where securities are issued and located.

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

Net debit cap: see caps, net credit or debit position.

Net settlement: the settlement of a number of obligations or transfers between or among counterparties on a net basis. See netting.

Net settlement system: a funds transfer system whose settlement operations are completed on a net basis, bilateral or multilateral.

Netting: an agreed offsetting of positions or obligations by trading partners or participants. The netting reduces a large number of individual positions or obligations to a smaller number of obligations or positions. Netting may take several forms which have varying degrees of legal enforceability in the event of default of one of the parties. See also bilateral and multilateral netting, position netting, novation, substitution.

Netting by novation: netting by novation agreements provide for individual forward-value contractual commitments (e.g. foreign exchange contracts) to be discharged at the time of their confirmation and replaced by new obligations forming part of a single agreement. Amount due under a discharged contract will be added to running balances due between the parties in each currency at each future value date.

Novation: satisfaction and discharge of existing contractual obligations by means of their replacement by new obligations (whose effect, for example, is to replace gross with net payment obligations). The parties to the new obligations may be the same as to the existing obligations or, in the context of some clearing house arrangements, there may additionally be substitution of parties. See substitution.

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

Open offer netting: “netting by open offer” describes a contractual means by which a third party, such as a clearing house, becomes party to a transaction agreed by two separate entities. The third party extends an ‘open offer’ to those entities, with the effect that if they agree the terms of a transaction which satisfies certain pre-agreed conditions, the third party automatically and immediately becomes interposed in that transaction. Two separate, equal and opposite contractual obligations are created, between the clearing house and one party, and between the clearing house and the other entity. If all pre-agreed conditions are met, at no stage does a direct contractual obligation exist between the two entities.

Operational safe custody accounts Securities accounts run by the central bank in which credit institutions can place securities deemed suitable for the backing central bank operations. The securities held on these accounts are finally deposited with the CSD under the name of the NCB, so that the transfer into a safe custody account results in a transfer between the bank’s and the NCB’s account with the CSD. The securities deposited with the NCB are generally pledged to the NCB as collateral for (interest-bearing) overnight and (interest-free) intraday Lombard loans. They can also be used for open market transactions (repos) based on a general authorisation given to the NCB to acquire securities.

Overnight money (or day-to-day money): a loan with a maturity of one business day.

Oversight of payment systems: central bank task, principally intended to promote the smooth functioning of payment systems and to protect the financial system from possible “domino effects” which may occur when one or more participants in the payment system incur credit or liquidity problems. Payment systems oversight aims at a given system (e.g. funds transfer system) rather than individual participants.

Payment: the payer's transfer of a monetary claim on a party acceptable to the payee. Typically, claims take the form of banknotes or deposit balances held at a financial institution or at a central bank.

Payment lag: the time-lag between the initiation of the payment order and its final settlement.

Payment order (or payment instruction): an order or message requesting the transfer of funds (in the form of a monetary claim on a party) to the order of the payee. The order may relate either to a credit transfer or to a debit transfer.

Payment system: a payment system consists of a set of instruments, banking procedures and, typically, interbank funds transfer systems that ensure the circulation of money.

Payment versus payment (PVP): the PVP-principle is related to the elimination of cross-currency settlement risk. It is achieved when a final and irrevocable transfer in one currency occurs if and only if a final transfer of the other currency or currencies takes place.

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

Principal risk: the credit risk that a party will lose the full value involved in a transaction. In the settlement process, this term is typically associated with exchange-for-value transactions when there is a lag between the final settlement of the various legs of a transaction (i.e. the absence of delivery versus payment). Principal risk that arises from the settlement of foreign exchange transactions is sometimes called cross-currency settlement risk. See credit risk.

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

Queuing: a risk management arrangement whereby transfer orders are held pending by the originator/deliverer or by the system until sufficient cover is available in the originator's/deliverer's clearing account or under the limits set against the payer; in some cases, cover may include unused credit lines or available collateral. See also caps.

Real-time gross settlement (RTGS): a gross settlement system in which processing and settlement take place in real time (continuously).

Real-time transmission, processing or settlement: the transmission, processing or settlement of a funds or securities transfer instruction on an individual basis immediately after the time it is initiated.

Receiver finality: analytical rather than operational or legal term used to describe the point at which an unconditional obligation arises on the part of the receiving participant in a transfer system to make final funds available to its beneficiary customer on the value date. See final settlement.

Registration: the listing of ownership of securities in the records of the issuer or its transfer agent/registrar.

Remote access to IFTS: the facility for a credit institution established in a country ("home country") to become direct participant in an interbank funds transfer system (IFTS) established in another country ("host country") and, for that purpose, to have a settlement account in its own name with the central bank in the host country, if necessary, without having established a branch in the host country."

Remote access to CSD: the facility in a SSS in a country ("home country) to become direct participant in a CSD established in another country (host country) and, for that purpose, to have a security account in its own name with the CSD in the host country.

Remote participant: a participant in a transfer system which has neither its head office nor any of its branches located in the country where the transfer system is based.

Remote payment: payment carried out through the sending of payment orders or payment instruments (e.g. by mail). Contrast with face-to-face payment.

Replacement cost risk (or market risk, price 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..

Repo: Sale and repurchase agreement. Arrangement by which a person with a long securities position sells them to a counterparty while simultaneously obtaining the right and obligation to repurchase them at a specific price on a future date or on demand. Used by persons with a long position in securities, but short on cash with which to obtain financing - similar to a secured borrowing, except that ownership of securities is not retained.

Reverse repo: Purchase and resale agreement. Arrangement by which a person with a short securities position purchases them from a counterparty while simultaneously obtaining the right and obligation to resell them at a specific price on a future date or on demand. Used by persons with a short position in securities, but a long position on cash to obtain securities - similar to secured lending, except that ownership of securities is transferred.

Rolling settlement: A method of settling securities transactions in which there is a unique settlement date for all transactions executed on a particular trade date. The Group of Thirty recommended that securities transactions be settled within three days after the trade, or T+3.

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

Securities depository (book-entry system): see central securities depository.

Segregated Account: An omnibus account held by one CSD for another CSD, allowing the identification of the participants for whom the CSDs are holding securities (e.g. SICOVAM having a single omnibus account for DTC, and within that account having sub-accounts for participants for DTC).

Sender finality: analytical rather than operational or legal term used to describe the point at which an unconditional obligation arises on the part of the initiating participant in a funds transfer system to make final payment to the receiving participant on the value date. See final settlement.

Settlement: an act that discharges obligations in respect of funds or securities transfers between two or more parties. See gross and net settlement system, net settlement, final settlement.

Settlement agent: an institution that manages the settlement process (e.g. the determination of settlement positions, monitoring the exchange of payments, etc.) for transfer systems or other arrangements that require settlement. See final settlement, settlement, settlement institution(s), multilateral net settlement system.

Settlement finality: see final settlement.

Settlement institution(s): the institution(s) across whose books transfers between participants take place in order to achieve settlement within a settlement system. See settling participant/member, settlement agent, multilateral net settlement system, bilateral net settlement system.

Settlement lag: in an exchange-for-value process, the time-lag between entering into a trade/bargain and its discharge by the final exchange of a financial asset for payment. See payment lag.

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.

Settlement system: a system used to facilitate the settlement of transfers of funds or financial instruments.

Share book-entry system: a computerised system for the issue and registration of equity securities in book-entry form (see also book-entry system, debt book-entry system).

Solvency risk: in this context, solvency risks relate primarily to the insolvency of the counterparts and secondarily to insolvency of the issuer of collateral.

Standing order: an instruction from a customer to his bank to make a regular payment of a fixed amount to a named creditor.

Substitution: The substitution of one party for another in respect of an obligation. In a netting and settlement context the term typically refers to the process of amending a contract between two parties so that a third party is interposed as counterparty to each of the two parties and the original contract between the two parties is satisfied and discharged. See novation.

Systemic risk: the risk that the failure of one participant in a transfer system, or in financial markets generally, to meet its required obligations will cause other participants or financial institutions to be unable to meet their obligations (including settlement obligations in a transfer system) when due. Such a failure may cause significant liquidity or credit problems and, as a result, might threaten the stability of financial markets.

TARGET: (Trans-European Automated Real-Time Gross-Settlement Express Transfer system): the TARGET system is defined as a payment system composed of one RTGS system in each of the countries which participate in Stage III of EMU and the European Central Bank (ECB) payment mechanism. RTGS systems of non-participating countries may also be included, provided that they are able to process the single common currency alongside the national currency. The domestic RTGS systems and the ECB payment mechanism are interconnected to each other according to common procedures ('Interlinking') to allow cross-border transfers throughout the European Union to move from one system to another system (see Interlinking).

Tiering arrangement: an arrangement which may exist in a funds or securities transfer system whereby participants in one category require the services of participants in another category to exchange and/or settle their transactions. See direct, indirect and settling participant/member.

Trade: An agreement between two counterparties in which one counterparty agrees to sell securities in return for funds to the other counterparty.

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

Trade netting: a 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.

Trade-for-trade (gross) settlement: the settlement of individual transactions between counterparties. See gross settlement system.

Transfer system: a generic term covering funds transfer systems and exchange-for-value systems.

Transfer: operationally, the sending (or movement) of funds or securities or of a right relating to funds or securities from one party to another party by (1) conveyance of physical instruments/money; (2) accounting entries on the books of a financial intermediary; or (3) accounting entries processed through a funds and/or securities transfer system. The act of transfer affects the legal rights of the transferor, transferee and possibly third parties in relation to the money balance, security or other financial instrument being transferred.

Unwinding (or settlement unwind): a procedure followed in certain clearing and settlement systems in which transfers of securities or 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 transferring liquidity pressures and possibly losses from the failure to settle to other participants, and may, in the extreme, result in significant and unpredictable systemic risks.

Variation margin (or mark-to-market payments): 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 clause: provision in the bankruptcy laws of some countries which may retroactively render transactions of a closed institution ineffective after 0.00 a.m. on the date the institution is ordered to be closed.