

**TOWARDS A LEGAL FRAMEWORK FOR CLEARING AND SETTLEMENT IN
EMERGING MARKETS**



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Introduction

One of the core operational processes that underlies a securities market is the process of clearance and settlement. The clearance and settlement process determines, to a large extent, the efficiency and effectiveness of a securities market.

Progress in technology has driven the development of centralised and computerized book entry systems for custody, as well as clearing and settlement. These developments have contributed significantly to the integrity of the markets where they have occurred, and served to reduce risk and costs.

However, the legal framework of many countries is still based on concepts of physical securities, and settlement based on delivery of physical securities. These concepts are not in keeping with modern day practices, and fail to adequately support the operations of a modern central depository system (CDS).

There is a need for ongoing review of the laws and regulations governing clearance and settlement systems to ensure that these are in keeping with the clearance and settlement systems and processes.

Aim of Report

At the meeting of the Emerging Markets Committee (“EMC”) in Montreal in September 1996, Working Group 2 (“WG2”) was given the mandate to conduct a study on the legal and regulatory framework for clearing and settlement in emerging markets.

The aim of the report is to:

1. Conduct a comparative study of the legal and regulatory frameworks of participating countries by identifying and discussing similarities and differences of the respective jurisdictions.
2. Identify and discuss similarities and differences in problems encountered by the participating countries in developing their respective central depository systems.
3. Provide guidelines for the development of policies in relation to the legal and regulatory framework supporting clearing and settlement in emerging market systems.

Methodology

As a method for collation of information for discussion, a questionnaire entitled “Towards a Legal Framework for Clearing and Settlement” was circulated to participating countries. The questionnaire was developed using as source material, *inter alia*, “Clearing and Settlement in Emerging Markets - A Blueprint”, IOSCO, 1992; “Modernizing Securities Ownership, Transfer and Pledging Laws”, International Bar Association, 1996 and “Disclosure Framework for Securities Settlement Systems”, CPSS / IOSCO joint project.

Through the questionnaire, it was hoped to obtain information from the different countries in order to analyze and compare the different legal / regulatory arrangements supporting custody, clearing and settlement for listed equities traded on a country’s principal stock exchange. The participating countries were also invited to send copies of relevant laws, regulations and standard agreements of central institutions for clearing and settlement, any operating manuals for participants, legislation for the purpose of setting-up a central depository system and any other relevant literature.

Fundamental Principles

The thrust of the study has been based on the four fundamental principles. These principles have been widely recognised , including by the International Bar Association, as fundamental to providing a regulatory framework for the efficiency and efficacy of clearance and settlement in securities markets. The principles are as follows:

1. Interests in securities held through a financial intermediary should be defined by legislation or otherwise interpreted as a type of interest in a pro-rata portion of the pool of securities or interests in securities held by the intermediary with whom the interest holder has a direct contractual relationship evidenced solely by the interest holder’s account with the intermediary, and not as a traceable property right in individual securities or a mere contractual claim.

The first principle suggests that interests in securities should not be defined as a traceable property right in individual securities, but rather as an interest in a pro-rata portion of the pool of securities held by a depository.

2. The pool of securities or interests in securities held by a financial intermediary to satisfy the interest of its interest holders should be protected against the claims of the intermediary’s general creditors, either by defining the interest as a type of property or co-property right or by amending existing insolvency laws for financial intermediaries to give explicit effect to this policy.

The second principle suggests that the pool of securities held in a depository should be protected against the claims of the depository’s and brokers’ general creditors. This is achievable if the investor’s interest in the securities is defined as a property

right in a pro-rata portion of the pool of deposited securities or interests in securities.

3. Conflicts of laws rules should be interpreted or modernised to reflect the development of the system for holding, transferring and pledging interests in securities by book-entry to accounts with financial intermediaries so that the selection of the law governing the characterisation, transfer and pledge of interests in securities represented or effected by book entry to accounts with a financial intermediary is determined by agreement among the relevant parties or, in the absence of such agreement, by reference to where the office of the financial intermediary maintaining such accounts is located or otherwise by reference to the intermediary's jurisdiction.

The third principle suggests that conflict of laws should be interpreted to reflect development of a central depository system so that validity of any transfer or transaction or pledge is determined by agreement among the relevant parties.

4. Procedures for creating and enforcing a pledge of interests in securities credited to accounts with intermediaries should be simplified.

This last principle suggests that procedures for creating and enforcing a pledge of interests in securities deposited should be simplified in order to encourage the collateralization of credit exposure.

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Progress in technology has driven the development of centralised and computerised book entry systems for custody, as well as improve the efficiency and effectiveness of the clearing and settlement system. These developments have contributed significantly to the integrity of the markets and served to reduce risk and costs.

However, the legal framework of many countries is still based on concepts of physical securities, and settlement based on delivery of physical share certificates, where ownership rights are defined as traceable property rights in individual securities and evidenced by the registration of the physical share certificate in the name of the individual owner. These concepts are not in keeping with modern day practices, where automated clearing and settlement systems have been developed and the establishment of central securities depositories now provide the means for holding securities in either immobilised or completely dematerialised form and permit the transfer of these holdings through book-entry. These new developments have made some existing laws obsolete as they fail to adequately support the operations of a modern central depository system (CDS).

Seven emerging market countries¹ have provided reports on their clearing and settlement systems. The reports show some similarities in the general approach to the operations of the clearing and settlement systems in the countries. However, there are also some marked differences in the methodology and approach to regulation.

¹ These countries are Korea, Malaysia, Mauritius, South Africa, Sri Lanka, Brazil and Thailand.

Legal Issues in Relation to Regulatory Framework Supporting Clearing and Settlement

With the development of clearing and settlement organisations, many new and complex legal issues need to be resolved. Furthermore, many recent disturbances in settlement processes have highlighted that certain legal issues which market participants had assumed were resolved, still remain unclear.

The great level of interest in the risks involved in clearing and settlement systems in recent years is reflected in the number of publications and reports on the topic. Several of the most important reports include the *G-30 Report* (1989), IOSCO's *Clearing and Settlement in Emerging Markets Blueprint* (1992), BIS *Report on DVP* (1992), Euroclear's *Beyond the G-30 Report* (1993), BIS *Report on Cross-Border Settlement* (1995), the BIS-IOSCO *Risk Transparency Questionnaire*, and more recently, the International Bar Association's discussion paper on *Modernising Securities Ownership, Transfer and Pledging Laws* (1996), and the CPSS-IOSCO *Disclosure Framework for Securities Settlement System* (1997).

One of the risks involved in clearing and settlement systems is legal risk. The precise allocation of losses among participants in clearing and settlement systems and the risk to which they are exposed depend on the legal framework which governs the rights and obligations of parties to the transactions. Lack of clarity in the legal framework is a source of risk to the extent that it creates uncertainty about exposures of market participants to potential losses. Market participants must be able to determine in advance, with sufficient certainty and predictability, the substantive laws which govern their rights and obligations or those of adverse claimants. They must be certain of their ownership rights and that these will not be successfully claimed by adverse claimants. Uncertainties surrounding the implications of bankruptcy law, legal risks associated with pledging / collateralising securities, finality of transfers and fungibility are examples of legal risks which are relevant in this context.

LEGAL AND REGULATORY ENVIRONMENT FOR CSDs

1. Organisational Structure of CSDs

The G-30² in 1989 recommended that each domestic market should establish a central securities depository (CSD) to hold securities. The fundamental objectives for the establishment of a CSD are for gains in efficiencies and for reduction in risk. Efficiency gains are achieved through the elimination of manual errors, lower costs and increased speed of processing through automation, which all translate into lower risks. Most markets that did not already have established CSDs in 1989 have organised one or more CSDs and centralised local settlement through them. With the exception of South Africa, all other countries that participated in this report, have some form of central depository where the securities are either immobilised or dematerialised.

In a “dematerialised” system, there is no document which physically embodies the claim. The system relies on a collection of securities accounts, instructions to financial institutions which maintain those accounts, and confirmations of account entries.

“Immobilisation” is common in markets which previously relied on physical share certificates, but the certificates are now immobilised in a depository, which is the holder of record in the register. Access by investors to the depository is typically through financial institutions which are members of the depository.

Through the establishment of CSDs, investors are able to substantially reduce risks of loss, theft and illiquidity costs by holding securities through one or more tiers of financial intermediaries such as banks or brokers. This has led to multi-tiered securities holding systems. There can be several types of holding systems. For example, some professional investors and financial intermediaries have direct contractual relationships with CSDs. They hold interests in securities through accounts on the records of the CSDs. Other investors, particularly retail investors, generally hold their

² “Clearance and Settlement in the World’s Securities Markets”, Group of Thirty: Washington & London, (1992)

interests through brokers or other financial intermediaries at a lower tier in the multi-tiered structure.

A direct holding system is one where the investor appears as the named owner in the issuer's records. The issuer therefore knows who its investors are, as the issuer's shareholder accounts are the same as the accounts which reflect the investor's ownership. An indirect holding system is one where the investor holds his securities through accounts maintained by one or more tiers of intermediaries. The person who appears as the registered owner of the securities in the accounts of the issuer in an indirect holding system is the top-tier intermediary through which the investor holds the shares.

In an indirect holding system, the functions of the holding system are performed by different institutions:

- custodian - with which investor deposits securities;
- central depository - where custodian deposits securities of customers; and
- issuer's registrar - which reflects the central depository as the owner of securities held through the depository and its custodian members.

To maximise the efficiencies of the multi-tiered structure, most CSDs and other financial intermediaries have adopted the practice of holding physical securities in fungible pools and of holding interests in dematerialised or registered physical securities through accounts in the name of the CSD or other financial intermediary (nominee name) with the issuer or its agent. The ultimate investor's ownership interest may not be shown on the books of the issuer, the CSD or other financial intermediary, except the particular intermediary with which it has a direct contractual relationship. The investor's direct intermediary will typically hold interests in the security in an omnibus account with the CSD or other intermediary at the next level up the multi-tiered structure.

There are some systems that have combined the advantageous features of both direct and indirect holding systems, resulting in a "hybrid" holding system. In those system, the "custodian" function in an indirect holding system is replaced with an "account administrator" or "sponsor" for direct investor accounts. The account administrator will deal with all communications to and from the registrars for securities which the investor

owns. This helps to reduce the risks involved of having the investors' securities held in the name of custodians or brokers that may go bankrupt.

Most countries which have introduced immobilisation or dematerialisation have had to use some form of indirect holding systems. An indirect holding system has several advantages:

- The investor only has to deal with one institution, the custodian, for purposes of receiving securities, authorising transfer of securities, delivering securities, etc.
- Brokers would know, prior to entering sell orders that the investor owns the securities and that they are positioned for delivery. In a direct holding system, the broker would need to take extra precautions to ensure that the investor will be able to deliver the securities for settlement.
- Transfer of securities is by book entry and there are no physical movements of securities and no accounting entries made on the books of the issuer or its agent.
- Reduces the traditional loss, theft and illiquidity costs and risks associated with holding, transferring and pledging securities.

However, in order for indirect holding systems to work well, there are several legal issues which have to be addressed:

2. Clear Definition of Property Interests

An indirect holding system depends largely on a network of laws which defines the property interests and the obligations and rights of the market participants. As investors no longer have actual possession of physical certificates, the ownership can no longer be defined in terms of actual possession of physical certificates. Nor can the interest of an investor be defined as a traceable property right in individual securities.

The substantive laws in most countries suffer from these fundamental flaws. For example, in common law based countries, deposited securities are treated as a "regular deposit", and the investor is treated as having a

traceable property right in individual securities deposited. This may lead to difficulties in ascertaining with sufficient certainty and predictability the substantive law that will govern the investor's rights and obligations or those of possible claimants.

Interests in securities held in an indirect holding system should therefore be defined by legislation or otherwise interpreted as a type of interest in a pro-rata portion of the pool of securities or interests in securities held by an intermediary with whom the investor has a direct contractual relationship evidenced solely by the investor's account with the intermediary, and not as a traceable property right in individual securities or a mere contractual claim. This means that certificates that are deposited are merged with the certificates of the same security that were deposited by other participants (concept of fungibility). Participants therefore lose the right to obtain the exact certificates they deposit. They do however have the right to obtain certificates equal to their book entry holdings of a security. This concept of fungibility is fundamental to book entry systems and critical to ensure liquidity of issues.

In all the countries with a CDS participating in this report, the rights of a depositor with respect to the deposited securities are clearly defined. Generally, the deposited securities are held in a fungible pool in the name of the CDS. The securities are deemed to be held by the CDS on trust on behalf of the depositor who is the beneficial owner. The concept of fungibility seems to be well established in these countries, with adequate legislative backing.

3. Mechanisms for Asset Segregation

In a book-entry system, where there is no physical securities to evidence ownership, there are operational challenges to properly segregate the assets of one customer from those of other customers.

When the securities held through a financial intermediary are not segregated from the intermediary's own assets, the interest holder may be treated as having a general contractual claim against the intermediary, instead of traceable property rights in individual securities. For example, under general principles of law in most civil-law countries, a person with an interest in unsegregated securities is generally treated as having an "irregular deposit". Irregular securities deposits are treated like general

money deposits - the deposited securities become the property of the intermediary and the interest holder becomes a general creditor of the intermediary. The legal result is generally the same in common law countries. This would expose investors and secured creditors to the insolvency risk of their intermediaries and potentially, lead to systemic risk in the market in the event of insolvency of a sizeable intermediary.

The segregation of securities on the books of the depository into proprietary accounts and customer accounts is important from investor protection perspective. Failure by a nominee to earmark customers' assets should not, however, convert the securities into the property of the nominee. Unfortunately, failure to properly segregate may substantially reduce the degree of practical protection from third-party claims which the system provides to customers.

In all the participating countries with a CDS, the investor holds his securities through accounting records maintained by one or more tiers of intermediaries institutions. The assets of the investor are only segregated legally from those of other investors in accounts maintained by the nominee. This makes it even more important for there to be proper segregation of securities on the books of the broker and the depository into proprietary accounts and customer accounts. In the said countries, securities are held on trust for investors, so that even if the registered holder is not the ultimate owner of the securities, they are still protected from the claims of creditors of the CDS in the event of insolvency of a broker. In most of the countries, the registrar keeps a record of the depositors in order to ascertain actual ownership of the securities.

4. Protection of Investor's Assets

The settlement arrangements of CSDs require protection from the application of insolvency laws in the event of bankruptcy of one of the intermediaries. This is related to proper segregation of assets in that if an intermediary does not maintain customer accounts accurately, a customer may not be able to adequately disentangle his interests from those of other customers or the intermediary's creditors in the event the intermediary becomes insolvent.

Furthermore there should be legislative provision to ensure the disapplication of insolvency laws in respect of securities transactions that are cleared through a central clearing agency. There are several common law principles of insolvency law that may affect or create uncertainty over the operations of CSDs:

- (a) *Set-off and netting of transactions* which permit the netting of credits and debits in the event of insolvency of a broker only if there are mutual dealings between the parties. This means that potentially, the operations of a central clearing house could be challenged as trade netting is independent of any requirement of mutual dealings between brokers and clients.
- (b) *Doctrine of relation back* which provides that the commencement of insolvency can relate back to an earlier time or event prior to the insolvency of a broker. In the event of insolvency of a broker, the operations of the clearing house , exchange and depository in respect of settled and unsettled trades could be rendered unlawful.
- (c) *Notice of insolvency and proof of debts* which limits a person's right to prove for a debt in an insolvency if he has notice of insolvency at the time the debt is created. In the event of insolvency of a broker, the clearing house's ability to prove a debt in relation to netted transactions may be limited.
- (d) *Avoidance of certain dispositions of property* which allows the liquidator to set aside certain dispositions of property after the commencement of the insolvency of a broker.
- (e) *Disclaimer of onerous property* which allows the liquidator to disclaim onerous transactions. This may cause the liquidator to "cherry pick" by only affirming profitable contracts to the insolvent broker.

The disapplication of insolvency laws in respect of clearance and settlement arrangements of the clearing house and the settlement arrangements of the depository will ensure that the operations of those organisations are not subject to legal challenge in the event of insolvency of the other market participants.

There appears to be several different approaches in the ways the participating countries addressed this issue of protection of investors' rights in the event of insolvency of either the broker or the clearing house. In Malaysia for example, certain provisions of the bankruptcy laws have been disapplied in the event of insolvency of the broker or clearing house. This ensures that the deposited securities cannot be attached by the liquidator or creditors as being part of the property of the insolvent broker or clearing house.

In Thailand, there is a difference in approach depending on the circumstances. In the event of insolvency of the broker, securities held in the account of the broker, on behalf of the client could be seized by the liquidator and held until the client proves that he is in fact the actual owner of the securities. In the event of insolvency of the clearing house however, securities held in the name of the clearing house are presumed to be held on behalf of the depositor and will not be attached by the liquidator.

In Sri Lanka, there are no specific laws governing bankruptcy and insolvency at all. However, due to the modest size of trades settlement there have been no major problems that have been experienced as yet.

5. Finality of Transfers and Unwind Risks

Another important issue to be addressed in achieving a safe and efficient CDS is the issue of finality of transfers and the unwinding of risks. In other words, whether the system ensures that a seller will not transfer securities without being assured of receiving the purchase price, and similarly whether the system ensures that the buyer will not make final payment without being assured of receiving the appropriate number of shares. Fundamentally, there must be a linkage between the security transfer mechanism and the payment system with the ultimate objective being to achieve delivery versus payment (DVP) i.e. that final delivery of securities will occur if and only if final payment occurs.

In all the countries which participated in this report, there is no simultaneous DVP. A few however, like Sri Lanka and Mauritius do have "same-day" funds. This does to a certain extent eliminate principal risk and offers the best possibilities for DVP.

A study group, set up by the Committee on Payment and Settlement System, in its report “Delivery Versus Payment in Securities Settlement Systems”, identified three broad structural approaches to achieving DVP:

Model 1: Simultaneous finality of securities transfer and cash transfer. Examples of model 1 systems include Euroclear, Fedwire and Cedel. This model is best in terms of risk control but it does require a credit provider.

Model 2: Final transfer of securities prior to final cash transfer but against guarantee by reliable banks. An example of this is the Central Gilts Office in the UK. This is effective in markets with great financial strength.

Model 3: Provisional transfer of securities, which becomes final when final cash transfer is made. If the cash is not paid, the securities credit will be reversed. Finality is conditional on information as to the availability of funds for purposes of settlement.

There is no unwinding risk in DVP models 1 and 2 as securities transfers are final immediately when made. There is, however, a risk of unwind in DVP model 3 if cash payment is not made.

Most of the countries which participated in the report fall under the Model 3 category, whereby the transfer of securities is initiated from the seller’s account and either deposited in the buyer’s account on a provisional basis or held pending final funds settlement. However, the clearing house in the said countries provide an implicit guarantee for the payment of the securities. In the event of failure, the clearing house will substitute itself as a counterparty, meeting the defaulting party’s obligations to the other. There are pros and cons to the concept of a central guarantor (see Appendix 1 for further elaboration on this subject).

An alternative to a central risk taker is reliance on bank cash and securities lending system. Banks that provide credit facilities to brokers would give credit on a commercial basis depending on the credit worthiness of each stockbroker. The banks would, therefore, have the responsibility to monitor the brokers’ risks in making a decision as to whether to extend credit or not and as to the amount of the credit to be extended.

With regards to securities lending, this would involve the lending of securities on a fully collateralised basis, generating a specified return for the lender. This would prevent or address failed trades. It should, however, be seen as a last resort measure and not as a normal part of the clearing and settlement process. Participants whose transactions would otherwise fail due to a lack of security position may borrow the securities to complete their obligations. There needs to be close regulatory supervision to ensure that securities lending is not a facility that is abused for speculative purposes. The difficulties in regulating such securities lending may be the reason why not all of the countries participating in the report permit or practice the activity.

6. Pledging

Another principle to be addressed in the operations of an efficient CDS is the procedure for creating and enforcing a pledge of interests in securities credited to accounts with intermediaries. Legal systems need to be adapted to include provisions specifically designed for the pledging of interests in immobilised or dematerialised securities in a multi-tier holding environment to eliminate legal uncertainties and to ensure that a credit provider gets good collateral.

The procedures for obtaining a valid pledge of securities are generally simple when the pledgor has actual possession of physical securities or is identified as the interest holder of dematerialised or immobilised securities directly on the books of the issuer. The procedures are not so simple when the subject of the pledge is an interest in securities held through accounts with a financial intermediary. In the case of dematerialised or immobilised securities, most countries will treat a pledge of such interest as valid only if there is an agreement between the parties and each intermediary between the pledgee and the dematerialised or immobilised securities credits the pledgee's interest in such securities to a segregated account in the pledgee's name on its books or the issuer credits the pledgee's interest to an account in the name of the pledgee itself. Few countries will treat a pledge of such interests as valid if there is an agreement between the parties themselves and the interest is merely credited to an account in the name of the pledgee on the books of the financial intermediary.

It has been suggested that the collateralisation of credit exposure should be as simple as possible. It should be sufficient for secured creditors to obtain “control” over pledged interest on the books of the intermediary and that this should have the same effect as obtaining possession of physical securities. The method for this would be by having interests in the securities credited to a special account in the name of the pledgee or having the intermediary agree to follow the instructions of the pledgee to liquidate the securities or interests in securities without any further action by the pledgor. An agreement could be drawn up between the pledgor and pledgee and contain provisions describing when the pledgee would have the right to give such instructions. The pledgor should be able to keep trading interests in securities credited to the special account prior to any default. There should also be efficient procedures to enable the pledgee to liquidate or realise the value of the pledged securities or interests in securities. Similarly, it should be possible for the recovery of damages by the pledgor in cases of wrongful liquidation or realisation of securities.

In the study conducted, only Sri Lanka does not recognise dematerialised securities for the purpose of pledging. In the other countries, securities could be pledged by being transferred into a specially marked securities account of the pledgee. In some of the countries, liquidation of the pledged securities can be carried out but has to be supported by documents evidencing the pledge, while in others, the securities cannot be liquidated until revocation of the pledge.

Conclusion

There are many different ways of addressing the legal and regulatory issues discussed above, as reflected in the seven country reports referred to in this paper. Each market has developed its own solutions to the unique feature and problems posed by its markets needs. The aim of this paper is not to set any best practices guidelines, but rather to highlight the main legal concerns which must be addressed in order to achieve a safe and efficient clearing and settlement system and to provide some guidelines for the development of legal policies for supporting clearing and settlement systems in emerging markets.

Arguments for and Against Having a Central Guarantee

The advantage of a clearing house guarantee is that the clearing house is at the centre of the system and therefore has all the data and information to facilitate this process. A central guarantor also enables risk management and counterparty assessment to be centralised and reduces counterparty risks for market participants. However, there are also disadvantages in having a central guarantor due to the following risks involved:

- (a) credit risk of a member not paying for securities purchased and the clearing house being unable to recover the securities;
- (b) credit risk of the clearing house releasing payment before securities have been delivered to it; and
- (c) position risk arising from the clearing house having to purchase securities in the market to make a delivery.

It may also be imprudent to concentrate such enormous risk on a clearing house unless it can support and manage those risks. A clearing house which acts as a central counterparty may also lead to market participants being less inclined to adopt vigorous standards in assessing the credit quality of their counterparties by entering into transactions with persons who are not financially sound and with whom they would not otherwise trade with directly.

It can be seen from the above arguments that before a guarantee is provided by a clearing house, it must have strong systems and controls, in particular in terms of its risk management capabilities. In the countries where the clearing house acts as the central guarantor, the risk management features typically include participation standards, collateral requirements, minimum capital requirements, loss sharing procedures and operational safeguards.

	Malaysia	Thailand	Korea	Sri Lanka
1. Clearing Function / Central Depository	Securities Clearing Automated Network Services (SCANS) acts as clearing house. Malaysian Central Depository (MCD) is central depository.	Thailand Securities Depository Company (TSD) acts as clearing house, central depository and Registrar.	Korea Securities Depository (KSD) acts as the central depository. Korean Stock Exchange (KSE) acts as clearing house.	Central Depository System (CDS) acts as central depository and clearing house
2. Delivery & Settlement Period	T+5 for securities. T+7 for payment.	T+3.	T+2.	T+5 for buyer. T+7 for seller.
3. Whether Settlement Occurs in Same-Day Funds	Settlement does occur in same-day funds as the buying broker pays to SCANS by 11:30 on T+6. SCANS will pay to the selling broker by 11:30 a.m. on the same day. Selling broker will pay selling client on same day by 4 p.m. SCANS indirectly guarantees payment.	Same-day funds or next-day funds depending on whether paying bank is same as bank with which payee has account or not. Presently working on plans for electronic transfer.	Payment is guaranteed by issuing bank which means payee can use funds on settlement date itself.	Settlement occurs in same-day funds.

<p>4. System of Trade Settlement and Whether DVP is Achieved</p>	<p>Trade settlement is carried out in line with the Fixed Delivery and Settlement System (FDSS) which is administered by SCANS.</p> <p>Under the FDSS, settlement is carried out on T+5. Buyer of securities will have his CDS account credited on T+5 and a seller's account will be debited on T+5. With regard to payment, seller will be paid by his broker on T+6 and buyer has to pay his broker not later than T+7. Shares credited into buyer's account will be held under lien until they have been paid for.</p> <p>There is no DVP.</p>	<p>Seller must ensure there are enough securities in his account at TSD on T+3. Securities transferred from seller's TSD account on T+3. Delivery of cheques for payment will be made on T+3.</p> <p>There is no DVP.</p>	<p>Delivery is done by book-entry on T+2. With regard to payment, KSD designates clearing banks and opens an account with them. Member companies of KSD also open accounts with the clearing banks. Paying broker is to deliver funds to KSD's cash account at the bank before 4 p.m.</p> <p>There is no DVP.</p>	<p>Inter-party settlement is carried out on T+7. All participants maintain accounts with the nominated settlement bank, and net settlement amounts are debited and credited accordingly.</p> <p>There is no DVP.</p>
<p>5. Evidence of Ownership</p>	<p>Title evidenced by book entry in investor's CDS account and in monthly statements issued by MCD.</p>	<p>List of owners kept and updated by depositors.</p>	<p>Receipt slips representing securities recorded in shareholder's book.</p>	<p>Monthly CDS statements.</p>

<p>6. Rights of Depositor with Respect to Deposited Securities</p>	<p>Securities are immobilized in the central depository system (CDS).</p> <p>MCD holds securities in name of “MCD Nominees”. MCD is bare trustee and securities are held on trust for investors who are the beneficial owners. Investors receive dividends, voting rights and corporate actions.</p> <p>Securities are held as part of a fungible mass.</p> <p>Investors still have the right to obtain scrips equal to their book-entry holdings of a security through withdrawal from the CDS. However, once scrip is withdrawn, it cannot be used to settle a trade unless it is redeposited into the CDS.</p>	<p>Depositors have to open depository accounts with TSD. Securities deposited are registered under the name of “Thailand Securities Depository Co. Ltd for Depositors”.</p> <p>Securities are presumed to be securities held by TSD on behalf of depositor.</p>	<p>Depositors have co-ownership rights.</p>	<p>Securities held by CDS are dematerialized although they could be materialized if investor wishes to have physical security.</p> <p>Under the dematerialized system CDS is registered owner and holds securities on trust for depositor who is beneficial owner.</p>
<p>7. Rights of Creditors with Respect to Deposited Securities</p>	<p>Securities are held on trust for investors, therefore neither creditors of MCD nor creditors of brokers can attach securities.</p>	<p>Neither creditors of TSD nor creditors of depositors shall have right to claim over securities.</p>	<p>Creditors do not have right to claim over securities. Deposited securities are separated into broker and client components.</p>	<p>CDS maintains individual accounts in name of beneficial owner so that neither creditors of CDS nor of brokers can attach securities.</p>

8. Regulatory / Legal Structure	Securities Industry (Central Depository) Act, 1991 (SICDA). Rules of SCANS. Rules of MCD.	Securities & Exchange Act Rules of the SET and TSD.	Securities & Exchange Act Stock Exchange Market Transactions (Operating Rules).	Rules of the CDS.
9. Is Stock Borrowing and Lending Permitted or Practiced	Although SBL is permitted, it is not currently practiced to facilitate settlement of failed trades due to trade mismatch..	No.	Yes.	No.
10. Bankruptcy & Insolvency	Bankruptcy Act, 1967 and Insolvency law provisions in the Companies Act 1965.	Bankruptcy Code applied in event of insolvency of broker & clearing house.	Bankruptcy Law.	No specific laws governing bankruptcy and insolvency.
	S.126B of Securities Industry Act provides that provisions of Bankruptcy Act & insolvency law are disapplied in event of broker default or insolvency of broker or clearing house.	Securities held in account of broker on behalf of the client could be seized by official receiver and held until the client proves that he is infact the actual owner of the securities. This does not apply to securities held in the name of TSD.	Securities deposited with KSD are fully protected against any claims from creditors of insolvent broker as KSD is required by law to set client's assets apart from those of broker.	

11. Pledging	<p>Securities can be pledged by being transferred into securities account of pledgee, “Pledged Securities Account”.</p> <p>Any instruction from pledgee with regard to disposition of pledged securities must be supported by documents evidencing pledge in his favour.</p>	<p>Securities can be pledged by transferring securities into “Pledge Account”. Securities held in such account cannot be withdrawn or transferred until revocation of pledge by pledgee.</p>	<p>Securities can be pledged by marking on pledgor’s account.</p>	<p>Sri Lankan Mortgage Act does not recognise dematerialized securities for purpose of pledging.</p>
12. Finality of Transfers and Unwind Risks	<p>S.35 of SICDA provides that depositor whose name appears in the record of depositors is deemed to be owner of the security, notwithstanding provisions of the Companies Act. With regard to unwinding, see Q10 above.</p>	<p>Problematic transactions can be unwound, separated and settled outside the netting system.</p>	<p>No provisions with regard to unwinding of securities or funds transfers.</p>	<p>Transaction can be unwound if there is any error in data entry or on mutual agreement of both brokers with valid reason.</p>
13. Risk Management Features	<p>Capital requirements, minimum liquid funds.</p>	<p>Clearing fund, collateralization, minimum capital requirement, net capital rule.</p>		<p>Deposits made by participants in CDS system deemed to be sufficient to prevent risk of systemic failure. CSE guarantees settlement of all transactions.</p>

	Brazil	Mauritius	South Africa
1. Clearing Function / Central Depository	CALISPA processes clearing and settlement for the Sao Paulo Stock Exchange. CLC processes for the other 8 stock exchanges, and is controlled by the Rio de Janeiro Stock exchange. Financial settlement is provided by CETIP.	Central Depository & Settlement Co. Ltd which acts as clearing house and central depository.	Equity Clearing House (ECH) acts as clearing house. There is currently no Central Depository.
2. Delivery & Settlement Period	T+3.	T+5.	Settlement is on a T+7 fixed settlement day basis.
3. Whether Settlement Occurs in Same-Day Funds	Settlement occurs in next-day funds.	Yes.	Settlement occurs in next day funds. Presently developing a National payment system.
4. System of Trade Settlement and Whether DVP is Achieved	Transfer of securities is conducted overnight from T+2 to T+3 via book-entry. Securities are blocked until payment occurs on T+3 through the CETIP system.	Trades are matched and entered into system on trading floor. Netting of cash is done at Settlement bank level. Net amount is then sent to the Bank of Mauritius (Clearing Bank) for final debit and credit between the Settlement banks. Once Bank of Mauritius confirms that funds settlement has occurred, CDS transfers securities between the securities accounts on T+5.	Securities are delivered physically, with the scrip accompanied by a signed transfer deed being delivered against the cheque payment.
5. Evidence of Ownership		Evidence of ownership is evidenced by statement issued by CDS.	Ownership is recorded in a scrip based registration system.

6. Rights of Depositor with Respect to Deposited Securities	Securities are held on fungible basis with the central depositories with segregation of accounts at the customer level and with securities recorded in the name of the individual customers. At the registrar level, the central depository appears as the fiduciary stockholder.	Securities are immobilised in the CDS. Securities Accounts are maintained by the CDS in the names of depositors, and reflects the beneficial ownership of the securities by the depositors.	All scrip must either be in the name of the beneficial owner or marked accordingly for identification if in a nominee's name. Records of managed accounts and nominee dealings of brokers are audited regularly and are subject to strict rules of procedure and disclosure.
7. Rights of Creditors with Respect to Deposited Securities	Segregation of accounts is practiced within the depositories to ensure investor protection.	S.17 of the CDS Act does not allow creditors of CDS or of stockbroking firm to attach securities belonging to investor.	Segregation of own and clients' funds ensures protection of clients funds and assets as clients assets are separate and distinguishable.
8. Regulatory / Legal Structure	Law 6404/76 (The Corporation Law) - grants ownership rights, Law 6385/76 - confers CVM power over clearing and settlement.	Securities (Central Depository, Clearing and Settlement) Act 30 of 1996.	Financial Services Board Act, No. 97 of 1990. Stock Exchanges Control Act, No. 1 of 1985. Financial Markets Control Act, No. 55 of 1989. Inspection of Financial Institutions Act, No. 38 of 1984.
9. Is Stock Borrowing and Lending Permitted or Practiced	National Monetary Council (CMN) Resolution 2286/96 allows SBL, while CVM Instruction 249/96 governs it.	Securities borrowing and lending is permitted.	There are securities lending and borrowing facilities available.

10. Bankruptcy and Insolvency	Decree-Law 7661/45, Law 6404/76, Law 7492/86. Segregation of securities ensure customer protection.	Bankruptcy Act. CDS Act makes provision for the CDS to realise the assets of the insolvent or bankrupt participant.	There are laws and rules concerning bankruptcy. Segregation of own and clients funds ensures protection of clients funds and assets from the insolvency process.
11. Pledging	Securities can be pledged as guarantee for open contracts. It is clearly defined in the agreement between the intermediary and client that the securities pledged as collateral may be liquidated if the client fails to fulfill the obligations.	Securities can be pledged by crediting them into the pledgee's Collateral Account and recorded in the pledgor's Pledge Account. They are dealt with strictly and exclusively in accordance with the instructions of the pledgee Participant, without regard to the pledgor participant.	Pledging is done by lodging the prescribed pledge form along with the securities with the bank of the pledgee. The pledged securities must be tagged to identify them and the nature of the pledge, and must remain at the bank where they are kept separate from other non-pledged securities being held in safe custody.
12. Finality of Transfers and Unwind Risks	Transaction could be unwound if trade is not done in accordance with market disclosure regulations. Request for unwinding could be done from the SC or Stock Exchange itself.	Unwinding of trades or funds is not allowed. In the case of a default, the CDS will step in using the Guarantee fund.	
13. Risk Management Features	Clearing member standards, collateralisation, risk based margining system (RADAR).	Settlement limits, Guarantee fund, membership standards.	Capital adequacy requirements, Guarantee Fund, Fidelity Cover.