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ENHANCING FUNDS SETTLEMENT OF BOND TRADES

EGYPT FINANCIAL SERVICES PROJECT
TECHNICAL REPORT #62

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for New Instruments

Activity: Activity 3.2.7: Remove impediments on activating the
supply and demand for fixed-income securities

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ACRONYMS

BIS model	Bank for International Settlements
CCP	Central counterparty
CMA	Capital Market Authority
CSD	Central Securities Depository
DTGS	Designated Time Gross Settlement
DVP	Delivery versus Payment
MCSD	Misr for Clearing, Settlement and Depository
RTGS	Real time gross settlement
RVP	receive-versus-payment

EXECUTIVE SUMMARY ENHANCING DELIVERY VERSUS PAYMENT FOR SECURITIES AND FIXED INCOME MARKETS

1. BROKER – CUSTODIAN – CLIENT RELATIONSHIP

First, The Capital Market Authority (CMA) and Misr Central Securities Depository (MCSD) recognize DVP as a high level principle on risk management along with further principles for investor protection, where current MCSD settlement arrangements are tiered (both on the regular market and for primary dealers market), only direct participants having direct access to the system. DVP for direct participants in the settlement system does not eliminate risk exposures between participants and their clients. Implementing True Delivery Versus Payment link or improving the DVP system will assure safety.

Proposal for fund settlement:

- Step 1 : Investors use Bank Accounts for the securities trades payments (to eliminate cash trades),
- Step 1: Handling money obligations for executed trades through the custodian (instead of the broker),
- Step 2: Settling the net cash on the Custodian Account (currently: the broker account). All Custodians may eventually act as clearing banks

Purpose: minimize risk on the market and increase investor protection, enhance DVP process towards True DVP.

2. FIXED INCOME INSTRUMENTS:

Second, improving the clearing and settlement arrangements for the primary dealers system will lead to improving the liquidity in the government bond market. This could be achieved by adopting a settlement system with same or next-day clearing of funds and securities, based on gross principles (»Basel DVP model 1« - gross transfer of securities and gross transfer of money).

Proposal under consideration:

Add trade-for-trade settlement at MCSD who will transfer bonds and order payment to the investors accounts on T+0 .

Purposes:

- Encourage non-banking financial institutions to enter the secondary government bond market
- Implement true or direct DVP process that will improve liquidity through efficient and direct settlement system

ENHANCING BOND MARKET FUNDS SETTLEMENT

"Handling money obligations through custodians using central bank accounts for settlement, accessed by MCSD in a gross settlement services for fixed-income instruments with pre-settlement check for securities and funds".

SECTION I INTRODUCTION

In order to enhance the settlement system for fixed-income securities with a pre-settlement check, the settlement and pre-settlement systems for debt securities must first demonstrate higher performance standards which preserve investor confidence and assure market liquidity.

Task 3 of the Egypt Financial Services project addresses issue this directly related to the fixed income instruments market functionality. This includes a review and a proposal for regular (equity) trading pre-settlement and settlement process to ensure possible improvements in the existing Delivery-versus-Payment (DVP) process and reduce risks, particularly on the intermediary-customer level (i.e. broker/dealer – investor).

A settlement system should support different types of securities, equities and interest-bearing cash instruments, as well as the respective securities deriving from the "securitization" process within the real estate finance industry.

Structural differences exist between (multiple-broker stock exchange) equity and the government bonds market. Although both markets have, particularly the similar market structures, differences affect the way participants trade, and as such impact the liquidity that they provide. The properties of the securities, the trading environment and customer characteristics in equity and bonds market also differ. This fact, combined with differences in market structure, implies that future functioning of the bond market based on a model, developed for the equity market should be adjusted to accommodate those differences.

The settlement system could serve two slightly different functionalities:

- the equity market and
- the fixed income market.

SECTION II SECONDARY MARKET FOR GOVERNMENT AND CORPORATE BONDS

The benefits of developing a liquid government bond market go beyond financing government fiscal deficits at lower costs. A liquid government bond market facilitates the pricing of other riskier financial assets, and securitization bond is a good example). The depth of the money and bond market influence the effectiveness of a central bank's monetary policy, such as the yield curve in a liquid bond market, can reveal important information for monetary policy.

To improve liquidity in the Egyptian government bond market, clearing and settlement arrangements that further reduce risk should be introduced. This could be achieved by adopting a settlement system with the same or next-day clearing of funds and securities, based on a gross principle (»Basel DVP model 1« - gross transfer of securities and gross

transfer of money). Such a system however, requires that market participants have access to intraday or overnight credit facilities of the Central Bank.

Another concern, though not directly related to the specific EFS Task 3 Activity 3.2.7, regards transaction costs in the clearing and settlement system. Bond trading would be adversely affected if transaction or settlement costs are high, and cause banks to avoid the central clearing and settlement system, or trading in bonds, generally.

Improving the settlement system and reducing risks implies broadening the investor base by attracting institutional and foreign investors to the government bond market and eventually the corporate bond market, and consequently improve liquidity by encouraging institutional investors to give-up a “buy-and-hold” policy. Accordingly, improved and changed market preferences could help broaden the range of instruments (securitization bonds) and thus deepen the secondary market and offer participants diversification of price risks.

Therefore, it is important the government and central bank promote liquidity in government and other bond markets. A key challenge is how to broaden the investor base, not only because of the size effect, but also because a larger number of investors with diverse risk profiles generates incentives for financial innovation, greater market dynamism and lower transactions costs. Increasing the number of investors implies promoting institutional investors and attracting foreign investors to the government bond market, among others (for example, with developing money market, and introducing new varieties of instruments) with improved and efficient trading and settlement arrangements.

Another important way to enhance liquidity in secondary markets is the use of government securities as collateral for lending operations, including the lending operations of the central bank and the inter-bank market.

In this respect, the EFS/MCSD/CMA initiative seeks comment on the benefits and costs associated with implementing a true Delivery versus Payment (DVP) system which seamlessly connects the payment system and the security settlement systems for immediate - if possible in real time - settlement of securities transactions and thus achieving the EFS Task 3 objective of an enhanced trading and settlement system for fixed-income securities by performing a pre-settlement check.

SECTION III DELIVERY VERSUS PAYMENT (DVP)

DVP does not require a strict simultaneous transfer of funds and securities. Instead, underlying securities are blocked in the seller’s account and the securities are transferred to the buyer if, and only if, the CSD receives settlement confirmation of the cash leg from the payment system.

The Capital Market Authority (CMA) and Misr Central Securities Depository (MCSD) recognize DVP as a high-level principle of risk management along with further principles investor protection. Current MCSD settlement arrangements are tiered (both on the regular market and the primary dealers market) and only direct participants have direct access to the system. DVP for direct participants in the settlement system does not eliminate risk exposure between participants and their clients. Implementing a “true delivery versus payment” link or improving the DVP system would contribute to assuring investors of a higher degree of safety in the Egyptian securities market.

In this respect, CMA is seeking a solution to whether the CMA and MCSD should adopt a new rule or amend existing rules to require the completion of the broker-dealer delivery-versus-payment or receive-versus-payment privileges to a customer, particularly relating to retail and foreign investors.

It is generally accepted that a substantial portion of the risk in a clearance and settlement system is directly related to the length of time it takes for trades to settle. In other words, "time equals risk" and the time lag between technical deliveries (of cash and securities) and the moment at which the deliveries become final should be minimal. The length of time between the blocking of securities and cash payment, and the moment when deliveries become final, should be minimized, at least for the primary dealer market in government and other bonds. Higher performance standards, in order to preserve investor confidence and market liquidity, require controlling risk exposure between intermediaries and their clients.

Although the vast majority of DVP transactions settle without any difficulty, time differences between the receipt of securities and the passing of cash can occur. Clearly, if both do not occur simultaneously, one party to the transaction will be at significant, albeit usually short-term, risk. The risk to clients would be the default of a custodian at a time when client assets are in the course of settlement. In such a scenario, clients' securities may have been delivered to the custodian. In either case, if the client has not been paid for the securities, the client is at risk unless there is specific treatment of client assets in the course of settlement, such as the maintenance of separate settlement accounts at the custodian and the clearing house which ensure that clients' securities are not mixed with those of the firm.

Concerning settlement risk (for both market segments, equity and bonds), it is very important to define when finality is reached, including intraday settlement finality, if available, and also with respect to the central bank, of accounts access and usage conditions of the central bank accounts versus those of the banks. Additionally, central bank money represents the safest solution for a cash settlement of a securities transaction because a central bank cannot fail. On the other hand, commercial banks acting as settling agents should have in place strict measures that ensure capital adequacy.

SECTION IV CURRENT SETTLEMENT SYSTEM

4.1. THE MISR FOR CLEARING, SETTLEMENT AND DEPOSITORY (MCSD) SYSTEM

The MCSD system very efficiently supports different types of securities, equities and corporate bonds. Securities are immobilized or completely dematerialized in MCSD. Immobilization or dematerialization enables securities transfers to occur through accounting entries on the MCSD books.

MCSD cannot offer funds accounts and permit funds transfers on its own books as a means of payment for securities. Alternatively, these funds transfers occur on the books of clearing banks, for settlement net payments at the participants level, and of commercial banks for broker/dealer firms and their customers.

Regular market stock exchange (SE) settlement requires a pre-settlement check of available securities position before entering the sell-trade order in the SE system – on-

line real-time link MSCD/SE to send account data and prevent the execution of the order if the position is insufficient.

Brokers cannot trade for their own account (house trades), only client trades, which means custodians receive only clients' money.

On the cash side of the transaction, money flows from the investor's bank account, if any to the broker's bank account, onto the buyer's broker (net pay) clearing account at the clearing bank, to the seller's broker (net receive) account with the clearing bank, and further from the clearing bank to the broker's money account at the commercial bank. Currently there are three clearing banks but more are expected in the near future.

There are different settlement periods, namely T+2 for actively traded securities, T+3 for less actively traded securities, T+4 for certificated securities. Thus there are up to three different daily cash net positions for each broker/custodian.

4.2. ROLES IN THE MCS D SYSTEM

Broker – Dealers

Brokers execute trade orders on behalf of their clients on the stock exchange within the stock exchange trading system.

When an investor sells a security, the investor must deliver to the custodian a securities certificate or transfer securities into the custodian's securities account no later than the business day of the sale. While brokerage firms are required to send funds "promptly" to customers following the settlement of a trade, there are no deadlines imposed by law or regulations. Brokerage firms credit the cash account with the sale proceeds as soon as the trade is settled.

Ways investors pay for their investments.

Most investors maintain a "cash" account with the broker that requires payment-in-full prior to each security purchase. Alternatively, an investor may open a "margin" account, by which the investor buys securities by borrowing money from the custodian bank for a portion of the purchase price. This rule would in normal circumstances mean that when the investor buys securities, the brokerage firm must receive the payment no later than one business day after the trade is executed. Within the MCS D system, brokerage firms require:

- payment in advance, or
- payment after the delivery of securities and thus broker crediting the customer and assuming the credit risk.

Brokers and custodians use "DVP" techniques – providing credit before finality (that is, before cash and securities have settled in the market) – to neutralize adverse effects of timing mismatches between settlement structures. Securities advances can be used where there is a lack of synchronization between the CSDs' settlement systems and those of custodians. A lack of synchronization between securities settlement systems and cash payment systems can be overcome by providing credit before finality.

Clearing members – brokers

A clearing member participates in MCSD's clearing and settlement and is responsible for ensuring that payments are settled on the prescribed settlement date. The broker, as a clearing member, settles payments on behalf of customers by transferring bulk payments to the settlement agent (clearing bank) on T+1 (for liquid securities) or T+2 (for less liquid active securities) for the net payments process (T+2 or T+3).

Securities account operators (custodians)

An account operator is a custodian institution that maintains a register in a specific MCSD account. Account operators have a technical connection with the MCSD allowing them to register instructions in the MCSD system. Additionally, an account operator opens securities accounts and registers changes in the accounts, such as trade instructions and changes in account details. Account operators receive and deliver securities through automatic debit or credit entries following the MCSD settlement process.

Nominees (custodians)

An account operator (custodian institution) may act as a nominee (registered owner) or investors' representative (beneficial owners) to the MCSD and issuers. Nominees maintain nominee accounts, where one or more investors' holdings are registered. A nominee normally manages the holdings of individual investors in the custodian's system, where holdings are mirrored on an aggregated level.

Settlement (clearing) banks

The settlement bank supplies services related to the settlement of payments between MCSD and brokers, and is a participant in the Central Bank payment system. The settlement bank operates on behalf of one or more clearing members (brokers), and handles the disbursement or receipt of payments at settlement.

For money net positions transfers, MCSD uses a "provisional" zero-balance (dummy) account at the Central Bank level to settle cash payments between clearing banks. This Central Bank payment system is a "deferred" (designated time) end-of-day system. The inter-bank payment system provides additional payments to the custodians/brokers, and their customers. This is primarily for institutional foreign investors, where there are unnecessary time lags between payments and deliveries.

Clearance occurs on a multilateral netting basis. A central counterparty (CCP) is not interposed between the counterparties to a securities trade, taking on each party's obligation in relation to the other. By achieving netting of the underlying trade obligations, the use of a CCP could reduce credit risk (both replacement cost and principal risk) and liquidity risk for the trade counterparties.

The settlement of securities transactions on a DVP basis ensures that principal risk is eliminated because there is no longer a risk that securities could be delivered but payment not received, or vice versa. Additionally, DVP procedures reduce, though do not entirely eliminate, the risk that failure of a transaction participant could result in systemic disruptions. Systemic disruptions are still possible because a participant's failure could produce substantial liquidity pressures or high replacement costs.

DVP does not require simultaneous final transfers of funds and securities. Often, when a Central Securities Depository (CSD) does not itself provide cash accounts for settlements, it first blocks the underlying securities in the account of the seller or his custodian. It then requests the transfer of funds from the buyer to the seller in the settlement bank. The securities are delivered to the buyer or his custodian if, and only if, the CSD receives a settlement confirmation of the cash leg from the settlement bank.

SECTION V PROPOSAL FOR ENHANCING DVP PROCESS FOR FUNDS AND SECURITIES SEGMENTS

The settlement system should be divided into two sections with slightly different functions: the regular stock exchange market and the DTGS sub-market. The DTGS sub-market would mean optional “market” and settlement segment for any bonds, listed or not listed, on the stock exchange.

5.1. FIXED INCOME INSTRUMENTS SETTLEMENT

A) DTGS

Netting arrangements are increasingly common in securities markets with high volumes of trades. This is because properly designed netting produces very significant reductions in risks of gross (payment amounts and securities deliveries) exposures in markets. For low volume and high value trades, the more appropriate settlement process in the MCSD system shall be carried out according to the BIS model 1, i.e. gross settlement with regards to both securities and payments.

Pre-settlement risk can present substantial danger to the settlement system as it involves changes in the value of securities involved in the defaulting party’s transaction. For example, in the event of default of a major participant, it may entail credit losses so large as to create systemic i.e. (payment and financial systems) problems. Reducing the time period between trade execution and settlement is one of the primary means of reducing risk, especially in the government bonds and primary dealers “low number and high volume” market.

A functionality could be developed to meet the needs of institutional investors' clearing and settlement of fixed-income securities. Instructions are checked before being marked 'ready to settle' in real time during the settlement day. Settlement then takes place on T+0 or “end-day” or, at a number of fixed times during the day. The settlement can be referred to as Designated Time Gross Settlement (DTGS)¹.

With the DTGS procedure, each separate instruction is checked for both payment capacity and securities holding. Payment capacity for each transaction could be checked on the liquidity settlement accounts and the Central Bank accounts for securities settlement within the payment system. A balance on the bank’s liquidity account constitutes a holding of central bank money, i.e. a claim on the central bank. Furthermore, it is possible for clearing members to set limits for their customers, or groups of customers, against which payment capacity on this level is checked.

In a DTGS of the MCSD, settlement banks could also utilize the separate functionality for automatic pledge of securities to obtain intraday credit from the Central Bank.

¹ In addition, MCSD will be able to provide gross settlement in real time (RTGS), through Central bank RTGS payment system, which will be introduced in 2006.

The method of settlement used in the DTGS system limits the impact of failed participants and enables a reduction of time between trade and settlement, down to T+0. Several settlement cycles per day enable more efficient links with other clearing and settlement systems, as well as a successfully high settlement ratio at the end of the day.

B) “Repos”

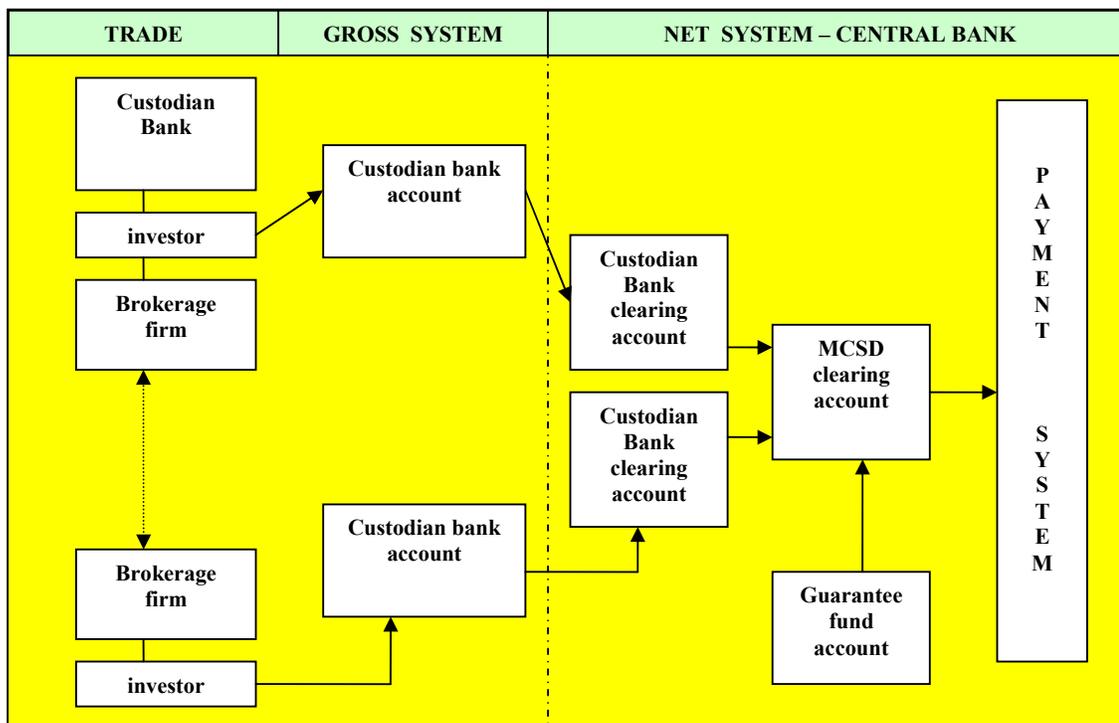
Another important way in which the government or central bank can be involved in enhancing liquidity in secondary markets is by using government (or other) securities as collateral for lending. Repurchase transactions (“repos”) are suited to develop secondary markets because, unlike outright operations, they do not require a liquid bond market in the first place, they do not affect securities prices except indirectly, and they have only temporary impacts on liquidity. Repos enhance bond market liquidity by allowing market participants to borrow against their securities portfolio, generally below the unsecured borrowing rate. Central banks usually introduce repos or collateralized lending facilities against government and central bank securities for monetary policy operations.

Secondary market liquidity could also be improved by encouraging inter-bank repos in government or other bonds. The lack of developing certain benchmark securities with high liquid characteristics can be considered an important reason for non-liquid bond markets. Benchmarks are important not only for developing a risk-free yield curve, but also for reducing the government’s borrowing costs.

5.2. REGULAR STOCK EXCHANGE MARKET SETTLEMENT

a) Improving cash settlement process - Handling money obligations for executed trades through the custodian instead of the broker

To ensure that all customer assets are appropriately accounted for and safely kept, there should be a new CMA or MCSD rule to ensure customer assets are kept with and handled by the custodians only, and not with the brokers/dealers. For securities transactions, investors should transfer necessary funds from their bank account to the custodian’s cash account, or deposit cash with the custodian, which is a banking institution. Before, or upon opening the securities account with the custodian, the client shall also open a cash account with the custodian for handling cash transactions related to the securities operations and settlement.



Custodians holding assets in custody should employ accounting practices and safekeeping procedures that fully protect the customer securities and cash assets. Customer's securities shall be protected against the claims of custodian's creditors.

CMA and MCSD should ensure that, whenever a bank passes a client's money to a third party in the course of undertaking investment business on behalf of the client, it:

- separately identifies the funds as relating to client dealings, as its agent; and
- to the extent possible, seeks client asset protection from the third party to whom such monies are sent.

Regulatory arrangements for the protection of client money shall be designed to apply to money placed with a bank, rather than with a broker. When a bank receives money from customers in the course of undertaking investment services business, it will usually hold these funds as deposits rather than as client money, and banking protections will apply to these funds. An important issue which arises from the difference between banks and brokers is the question of whether, the custodian bank concerned should require segregation of any client money which it passes to intermediate brokers, exchanges, or clearing houses. There are clear advantages to requiring custodian banks be subject to the same client asset protection regime when they pass client assets to another authorized firm. The protection shall not fail merely because the client chooses to deal with a bank as intermediary rather than with the broker.

b) Settling the net cash on the Custodian Account instead of the broker account: all Custodians may eventually act as settlement or clearing banks

Assets used to settle final payment obligations arising from securities transactions should carry little or no credit or liquidity risk. Custodian banks should be able to settle net payment obligations directly within the central bank payment system, instead of using settlement agents (clearing banks).

For the net settlement process of securities transactions, stock exchange or proposed DTGS transactions, MCSD could use an account in the central bank payment system (zero-balance account) purely for settlement accounting. This is not for monetary operations or access to an intraday credit facility, but to access centrally located queuing (if available). Ultimate net payment obligations associated with securities transactions could be arranged through a custodian bank cash account, opened at the central bank, for settling net money obligations. In such a case, custodian banks would have a direct relationship with the MCSD. Currently, there is no direct relationship with the cash settlement agent. Clearing banks and custodians are only using one of several clearing (settlement) banks to settle payment obligations.

The potential failure of the settlement agent (clearing bank) used to settle the ultimate payment obligations, could disrupt settlement and result in significant losses and liquidity pressures to MCSD participants, namely custodians. Furthermore, such risks are involuntary and difficult for MCSD participants to control. Also, custodians should be able to retransfer the proceeds of securities settlement as soon as possible, at least on the same day, and ideally intraday, so as to limit their liquidity risk and any credit risks associated with the assets used. Participants, who currently have their cash relations with the settlement (clearing) bank, should be given timely and direct access to the proceeds of the securities settlement and establish relation with the final or central cash settlement agent – central bank and MCSD for initiating the payments.

“DTGS” System Design

With the efficient support and wide use of DTGS functions and transactions by MCSD members and their clients, systemic risk and MCSD operator exposure, created on the multilateral netting environment on the “regular” T+2/3/4 exchange market segment, could be substantially reduced by migrating large high-value trades on the exchange market to the DTGS market.

Thus, to reduce overall risk on the securities market, MCSD can support functions for different types of transactions. such as where trade comparison and the issuing of settlement instructions are performed directly in the MCSD by the counterparties to the transaction, or on their behalf by the MCSD members. These functions require the bilateral matching of the terms of trade, which is standardized and centralized. Most importantly, MCSD could employ DVP or DVD mechanisms to reduce potential exposure to overall settlement risk and provide final deliveries of funds and securities directly to the final customers and not only at the agents’ level. For example, lenders of securities (in repo transactions) do not accept pre-delivery of collateral from borrowers without a valid trade confirmation.

DTGS transactions are processed with automated trade-processing services, queued and matched by the system in real-time, and recorded in the investor’s securities account and cash accounts until close of each business day (T+0). Information is transmitted to each of the counterparties’ MCSD front-end system for inclusion in the

main accounting processing. Unmatched transactions are queued for the counterparties to resolve or cancel at the end of the business day.

The money side of the transaction is interfaced with the day end, in the future real time or RTGS,, Central Bank payment system, using the SWIFT network and messages for all payment instructions.

In securities lending and pledging transactions when marked-to-market procedures are used, by which the collateral value of the underlying securities is adjusted daily to reflect changes in market prices , MCSD can provide functions to reduce counterparty exposure on outstanding transactions through the use of close-out netting provisions and calculations. Close-out netting permits the non-defaulting party to accelerate and terminate all outstanding transactions and net the loans' marked-to-market position values to that single sum owed by, or owed to, the non-defaulting party.

MCSD could therefore support DTGS services with the following main/general functions:

- Direct bilateral trade matching
- Three-step order processing (send/receive, receive/confirm, execute)
- Simultaneous final settlement (DVP, DVD)
- Real-time settlement processing
- Intraday finality of funds and securities transfers

MCSD could support following standardized DTGS trades with:

- Purchase
- Securities swap (delivery versus delivery)
- Securities issue offer
- Securities lending (repo, sell-buyback)
- Pledge

Purchase Transactions

The MCSD participant, in this case the custodian, maintaining the holder's securities account enters and sends the DTGS instruction (order) to the MCSD. The DTGS instruction contains the following data:

- party to the trade (holder of securities):
 - single identity code of the investor,
 - securities account number the code of the member maintaining the account
 - securities holder's cash account number
 - bank maintaining the party's cash account and code of the bank as member of the MCSD system (if the bank is a MCSD member)
- other party to the trade (buyer) information (same as for the seller)
- bank maintaining the party's cash account number and the bank
- code of the security
- quantity of the security

The DTGS transactions through MCSD may be for any securities that have been entered in the accounts of holders of securities in the central registry, and which carry no pledges or any other limitation of rights.

The MCSD participant, maintaining the holder's securities account, enters the DTGS order into the MCSD. After the entry of the DTGS order, the MCSD participant enters post function of order in the MCSD. The MCSD executes such post of the order in the MCSD in the following way:

- The buyer's MCSD participant receives the order in the MCSD
- The MCSD designates a reference number to the order, which is a numerical code
- The order reference number (together with other data from the order) is available to the buyer's MCSD participant and to the seller's MCSD participant
- The order reference number, the amount of the DTGS order, date of confirmation of the DTGS order and the running number of the DTGS order are available to the seller's bank. This is stated in the DTGS order, if the bank is a participant of the MCSD and to the buyer's bank, which is stated in the DTGS order, if such a bank is a participant of the MCSD

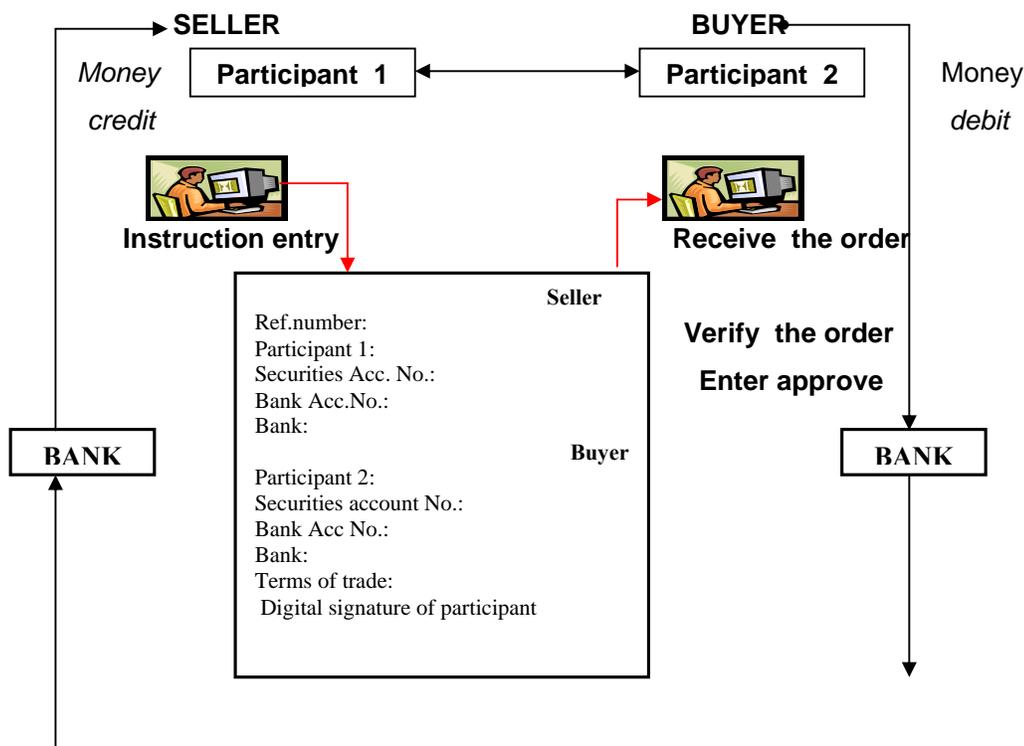
On the basis of the seller's notification, the buyer's MCSD participant verifies the data in the received order in the MCSD and compares the DTGS order in the MCSD with the data received from the seller or by fax from the pledgor's participant.

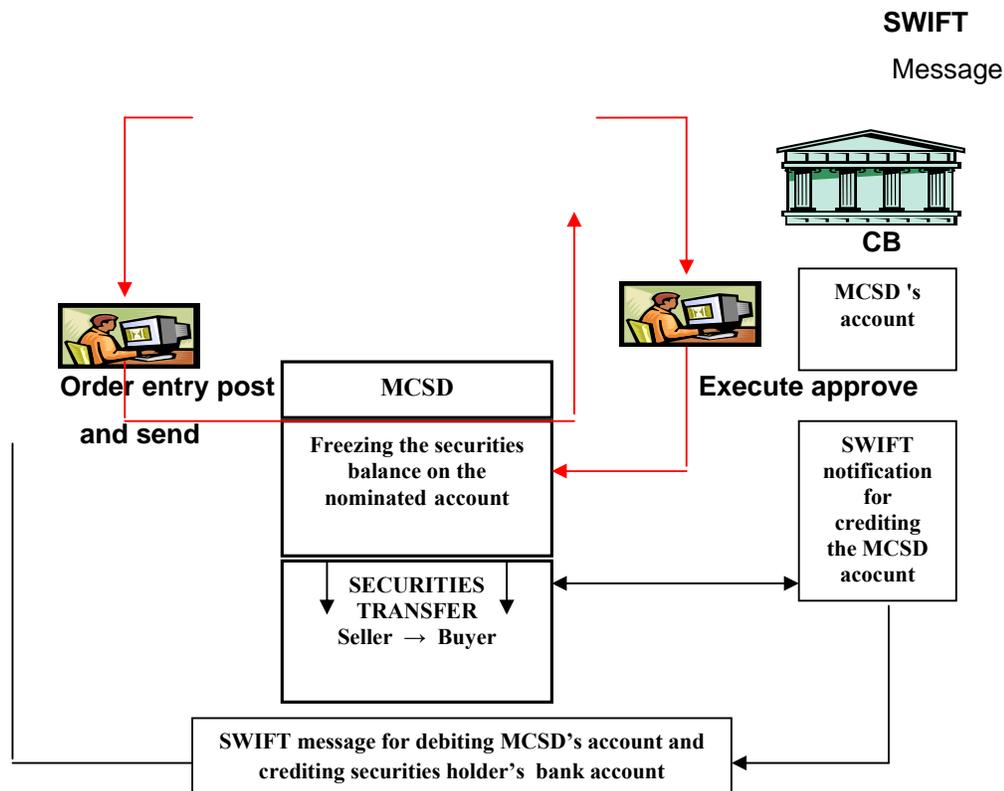
The buyer's MCSD member approves (posted) DTGS order in the MCSD if:

- The DTGS order contains all the essential information of the contract and other elements.
- The seller's MCSD participant has correctly and fully entered (and posted) all data from the DTGS order in the MCSD.

The buyer's MCSD member cannot change the data in the posted DTGS pledge order.

MCSD executes the order by blocking the quantity of securities on the sellers account and allocating a reference number to the order. The buyer's bank is no able to enter the reference into the SWIFT message payment instruction for the cash transfer from buyer's account to the MCSD operator's account in the payment system.





When the MCS D operator receives the funds in the clearing account (SWIFT confirmation message), MCS D automatically generates a SWIFT funds-transfer order instruction (MT 100) and sends the order to the payment system, simultaneously with the securities block release on the account of the seller and a consequent order to debit the seller's security account and credit the buyer's securities account.

Pledge

A pledge gives a creditor the right to have an overdue debt repaid against the pledged security (by the sale of such security) before any other creditors of the debtor. The creditor gains the right to dispose of the pledged property (securities) if the secured debt is not paid upon maturity. In other words, the creditor acquires the right to legally dispose of the property of another person (debtor).

Pledge transactions are normally structured as a secured-cash loan, with the lender receiving securities as collateral against the cash borrower's default. The lender does not obtain full title to the securities and agrees to release the pledge at a specific date, provided the borrower does not default. In the case of default, the lender (pledgee) has the right to foreclose on the collateral (sell the securities). Once the transaction is concluded, the counterparties confirm the economic and legal terms of the pledge directly in the MCS D system. The pledge confirmation process is performed on a bilateral basis and is done directly between the counterparties. Once the obligations of the market participants is calculated, the settlement of the securities pledge and funds

requires the transfer of cash from the lender to the borrower and the entry of a pledge on collateral from the borrower to the lender. The borrower retains property rights in the pledged securities.

A key feature of a securities DTGS pledge transaction is that the settlement of the initial delivery of the pledged collateral occurs on a shorter cycle than settlement of outright purchase transactions for the same security in the same market. The MCSD supports real-time settlement on T+0. A major source of risk is a time-lag between the completion of the two legs (payment leg and delivery leg) of the transaction. In order to ensure that the risk associated with the settlement process are eliminated, settlement takes place on a DVP basis. Settlement procedures are the same for both legs of the deal. That is, if the initial loan occurs on a DVP basis, it is necessary that the return leg also occurs on a DVP basis.

The final step in the process of a securities pledge transaction is the settlement of the return leg of the loan. This entails the borrower transferring cash to the lender and the lender returning/releasing the collateral provided by the borrower. The settlement of the return transaction requires the notification of termination by one party to the other. This is usually done by phone. The instructions are confirmed, cleared and settled in accordance with the terms of the agreement between the two parties. Once irrevocable and unconditional redelivery of both the money and the collateral have taken place, the transaction is complete.

MCSD can provide functions for executing and settling a pledge transaction in the DTGS system with the simultaneous fulfillment of the obligation to pledge securities and transfer cash funds, arising from the cash borrowing contract secured by the pledge contract. Trades are concluded between the parties, "off-exchange", and entered directly by them in the MCSD system. Simultaneous fulfillment or "simultaneity" means that one party's fulfillment of the obligation is dependent on the other party's fulfillment of the obligation. The MCSD operator ensures that all parties fulfill its obligation.

The subject matter of simultaneous fulfillment of obligation through MCSD DTGS system are individual (gross) obligations from the pledges, which are concluded directly between parties and entered in the MCSD and central registry with the purpose to ensure simultaneous fulfillment of obligations from such trades.

Initial Delivery

The pledge transaction is executed within the DTGS system on the basis of the DTGS pledge instruction. This is issued by the pledgor, with the transaction DTGS pledge. The MCSD participant, maintaining a holder's (pledgor) securities account enters the DTGS pledge instruction into the MCSD.

The DTGS pledge instruction (order) contains the following:

- Party to the trade (holder of securities/pledgor):
 - Holder's identity code (NIN/IDN)
 - Securities account number the code of the member maintaining the account
 - Party's cash account number

- Bank maintaining the party's cash account and code of the bank as participant of the MCSD (if the bank is a MCSD participant)
- Other party to the trade (pledgee)
 - Holder's identity code (NIN/IDN)
 - Name, address, citizenship
 - The code of the pledgee member, authorized to confirm the pledge and execute the pledge
 - Party's cash account number
 - Bank maintaining the party's cash account number and code of the bank as participant of the MCSD (if the bank is a MCSD participant)
- Debtor (if applicable and if not securities holder/pledgor):
 - Single identity code (NIN/IDN)
 - Name, address, citizenship
- Code of the security (ISIN)
- Quantity of the security
- Debt (loan) secured by the pledge
- Principal value
- Currency (if applicable, otherwise empty field)
- Interest (if applicable, otherwise empty field)
- Maturity and indication of prior redemption (yes/no)
- Entitlements beneficiary indication:
 - Securities holder
 - Pledgee
- Mark to market: yes/no:
 - If yes, then:
 - Min price of pledged securities (% or fix.)
 - Max price of pledged securities (% or fix.)

MCSD automatically refuses to enter the data from the DTGS order in the MCSD system if:

- The identity code of the holder of securities (pledgor) fails to match the securities account number
- The identity code of the pledgee fails to match the name and address.
- The balance of securities on the pledgor's account is lower than on the entered DTGS order.
- Third-party rights or any other limitation on the disposal have been entered for a part of or for all the securities from the DTGS order.

After the entry of a DTGS pledge order the pledgor's MCSD participant enters "post" function of order in the MCSD. The MCSD operator executes the "post" of the order in the MCSD in the following way:

- The pledgee's member receives the order in the MCSD.
- The MCSD designates a reference number to the pledge order, which is a numerical code.
- The pledge order's reference number (together with other data from the order) is available to the pledgee's member and to the pledgor's member.
- The order's reference number, the amount from the DTGS order, date of confirmation of the DTGS order and the running number of the DTGS order are available to the pledgor's bank. This is stated in the DTGS order, if such a bank is a member of the MCSD and to the pledgee's bank, which is stated in the DTGS order, if such a bank is a member of the MCSD.

The reference number from the preceding paragraph contains the control digit, which is designated on the basis of algorithm, and which can be detected in the appropriate field of the SWIFT order (MT 100), for the purpose of control of entries and the related reference number of the order in the MCSD and of the order in the SWIFT system.

MCSD Participant's pledgee activity

The pledgee notifies the MCSD participant, of the DTGS pledge and of the DTGS pledge order. The pledgee may notify the participant with a written DTGS order, or inform the member by telephone, electronic mail or in accordance with the general terms of business of the MCSD participant. On the basis of the pledgee's notification, the pledgee's participant verifies the data in the received order in the MCSD and compares the DTGS order in the MCSD with the data received from the pledgee or by fax from the pledgor's participant.

The pledgee's MCSD participant approves (posted) DTGS order in the MCSD if:

- the DTGS order contains all the essential information of the contract and other elements, which match the data from the pledgee's order; and
- the pledgor's MCSD member has correctly and fully entered (and posted) all data from the DTGS order in the MCSD.

The pledgee's MCSD member cannot change the data in the posted DTGS pledge order.

Pledgee's bank activity

Fulfillment of cash obligations from the concluded DTGS pledge (loan) is made through the MCSD operator's clearing and settlement account. To fulfill the cash obligation, the pledgee (or a third party) transfers to the bank maintaining the (transaction) account the following:

- A payment instruction in accordance with the provisions regulating the bank's payment operations and the general terms and conditions.
- The reference number of the DTGS pledge order, allocated by the MCSD, which has been notified to the pledgee by the pledgee's MCSD member (if the bank is MCSD member, the reference number is available to such bank directly in the MCSD).

On the basis of the received payment instruction the bank, maintaining the cash account of the pledgee (or of a third party), creates a SWIFT message (MT 100), which contains the following data:

- Sender's bank: BIC code of the bank, which maintains the pledgee's cash account
- Message type: 100
- Receiver and the receiver's account: MCSD operator's clearing and settlement account
- Eventual text of the message
- Transaction reference number: alphanumerical code of five digits
- Value date, designation of currency and amount: date of the DTGS pledge order, the amount is the money from the DTGS pledge order
- Ordering customer: name and surname/company name and the number of the cash account of the person giving the order for transfer of cash funds
- Beneficiary's bank: MCSD
- Beneficiary: MCSD
- Details of payment: reference number of the DTGS pledge order

The SWIFT message is sent by the bank to the payment system, where the cash funds from the account of the pledgee's bank (or a third party's bank) are transferred to the MCSD operator's clearing and settlement account within the payment system.

MCSD activity

When the pledgee's member approves the DTGS pledge order, the MCSD executes the DTGS order by entering in the holder's securities account (pledgor) the limitation on the disposal of securities for the quantity stated in the order.

When the MCSD receives funds from the DTGS pledge order, it receives a SWIFT message receipt of cash funds in the clearing and settlement account in the payment system or an executed MT 100 order of the pledgee's bank. MCSD is obliged to provide for the transfer of funds to the pledgor's bank within the designated deadline from receipt of funds.

MCSD supports individual DTGS orders and individual SWIFT messages for receipt of funds to be linked through the same reference number of the DTGS trade and the same amount.

The MCSD provides for the transfer of cash funds to the receiver's (pledgor's) bank after receipt of cash funds in the clearing and settlement account by preparing, entering and sending in the payment system a SWIFT message MT 100 containing the following data:

- Sender
- Message type: 100
- Receiver: the pledgor's bank BIC code as stated in the DTGS pledge order
- Text of the message
- Transaction reference number: alphanumerical code of five digits
- Value date, currency designation and amount, date of DTGS pledge order, the amount is the purchase money from the DTGS pledge order?
- Ordering institution: MCSD
- Beneficiary: the pledgor of securities from the DTGS pledge order and the number of the pledgor's cash account from the DTGS pledge order
- Details of payment: reference number, which is the same as in the DTGS pledge order and in the SWIFT message of the pledgee's bank

When the MCSD detects an incoming payment on its clearing and settlement account (SWIFT message MT 100 about receipt of cash funds) it executes an order for transfer of funds to the account of the pledgor's bank and is obliged to:

- Release the limitation on disposal of securities.
- Enter a pledge for the quantity of securities, which is stated in the relevant DTGS pledge order, in the securities account of the pledgor from the DTGS order.

Inter-Settlement Events

Once settlement of the initial leg of the loan pledge is completed, there are various actions that must be managed throughout the duration of the loan in order to ensure the loan. The pledgee or pledgor, as determined in the pledge contract and subsequently in the DTGS pledge order, are entitled to all of the economic benefits of the securities provided as collateral. These economic benefits include amounts equal to cash and stock dividends, interest payments, stock splits, rights of distribution and conversion privileges. Each party to the deal is required to track these events and provide its

counterparty with manufactured payments (i.e. substitute payments) in lieu of these events.

Throughout the life of the pledge, the cash borrower (pledgor) has the contractual responsibility to maintain the value of the collateral in relation to that of the cash on loan. This process entails the daily revaluation at current market prices (marking-to-market) of the pledged securities. Both parties to the transaction are able to perform this process within the MCSD and must obtain price sources, which are screen provided (on-line?). Real-time price information feeds (exchange system interface) is available to track and calculate exposures.

The borrower (pledgor) member is notified of insufficient collateral (margin calls) and the lender (pledgee's member) must return excess collateral. Margin calls are only triggered when the value of collateral falls below a trigger point set at - or at an agreed level - below the required collateral level (e.g. % of the value of the cash or securities lent). Margin calls must be settled promptly: T+1 is typical for securities given as collateral. Margin call can include securities other than originally pledged. Margin calls settlement is executed directly in the MCSD system on the basis of the:

- Pledge release order, issued by pledgee and entered in the MCSD by pledgee's member, and executed by the MCSD operator on T+1 (return excess collateral);
- Pledge entry order, issued by pledgor and entered in the MCSD by pledgor's member, and executed by the MCSD operator directly on T+1 (margin call).

Throughout the life of the pledge, securities pledged may be subject to other (further) pledges, third-party rights and other transactions, but not through the DTGS system.

During the pledge, and after the maturity date of the pledge, the pledgee has the right to sell the pledged security on the organized market (when a debtor fails to settle a debt, secured by a pledged security) eight days after the date it notified the debtor and the pledgor of its action. Execution of the pledge by the pledgee and MCSD member, authorized to execute the pledge and sell the securities in question prior to the maturity, is submitted to the MCSD with the use of the MCSD "pledge call" function and not through the DTGS pledge system. Also, during the pledge, and after the maturity date of the pledge, the pledgee has the right to release the pledge not using the DTGS system. However, if the original DTGS pledge order contains indications that redemption prior maturity (of the loan) is not possible, these two actions are not allowed in the MCSD system until the maturity of the pledge.

Settlement of the Return Leg

A securities pledge-release transaction entails the borrower transferring not necessarily the same amount of cash borrowed back to the lender, and the lender returning the collateral provided back to the borrower, e.g. releasing the pledge on the holder's securities.

Transactions are settled in the MCSD system »inversely« to the original DTGS pledge, on the basis of the pledge order, issued by the pledgee, with the transaction DTGS pledge release. MCSD member, authorized by the pledgee to enter the pledge transactions, enters DTGS pledge order into the MCSD.

A DTGS pledge release order contains the following:

- Party to the trade (holder of securities/pledgor):
 - single identity code (NIN/IDN)

- securities account number the code of the member maintaining the account
- party's cash account number
- bank maintaining the party's cash account and code of the bank as member of the MCSD (if the bank is a MCSD member)
- Other party to the trade (pledgee)
 - Single identity code (NIN/IDN)
 - Name, address, citizenship
 - Pledge type = single creditor
 - The code of the pledgee member, authorized to confirm the pledge and execute the pledge
 - Party's cash account number
 - Bank maintaining the party's cash account number and code of the bank as member of the MCSD (if the bank is a MCSD member)
- Code of the security
- Quantity of the security
- Debt (loan) secured by the pledge
- Value (if applicable, otherwise empty field)

After the entry of a DTGS pledge release order, the pledgor's MCSD member enters post function of order in the MCSD. The MCSD executes such a post of the order in the MCSD in the following way:

- The pledgor's member receives the order in the MCSD system
- The MCSD system designates a reference number to the pledge order, which is a numerical code
- The pledge order's reference number is available to the pledgee's member and to the pledgor's member
- The order's reference number
- The amount from the DTGS order
- Date of confirmation of the DTGS order and the number of the DTGS order

The pledgor's MCSD member approves (posted) DTGS order in the MCSD if:

- The DTGS order contains all the elements of the trade and other elements, which match the data from the pledgee's order
- The pledgor's member has correctly and fully entered (and posted) all data from the DTGS order in the MCSD

Fulfillment of cash obligations from concluded DTGS pledge (loan) is made through the MCSD operator's clearing and settlement account number in the payment system.

To fulfill a cash obligation, the pledgor (or a third party) delivers to the bank maintaining the (transaction) account a payment instruction with the DTGS pledge release order reference number allocated in the MCSD system, and has been notified to the pledgee by the pledgee's MCSD system member.

On the basis of the received payment order, the bank maintaining the cash account of the pledgor (or of a third party), sends a SWIFT message MT 100, which contains the following data:

- Sender's bank: BIC code of the bank, which maintains the pledgor's cash account
- Message type: 100
- Receiver and the receiver's account: MCSD
- Eventual text of the message: any text

- Transaction reference number: alphanumeric code of five digits
- Value date, designation of currency and amount: date of the DTGS order, the amount is the purchase money from the DTGS pledge order
- Ordering customer: name and surname/company name and the number of the cash account of the person giving the order for transfer of cash funds
- Beneficiary's bank
- Beneficiary: MCSD
- Details of payment: reference number of the DTGS

The SWIFT message is sent by the bank to the payment system, where the cash funds from the account of the pledgor's bank are transferred to the MCSD's clearing and settlement account in the payment system. When the MCSD receives funds from an DTGS pledge order, it is obliged to provide for the transfer of funds to the pledgee's bank by preparing, entering and sending in the RTGS system a SWIFT message MT 100. After execution of such payment order, the MCSD enters a release of the pledge for the quantity of securities stated in the relevant DTGS pledge order in the securities account of the pledgor from the DTGS order.

SECURITIES LENDING

Securities lending transactions are typically structured as a securities loan transaction, repurchase agreement, or as a sell-buyback agreement. While the legal structure of the transactions differs, the process is similar, as there is a temporary exchange of securities, typically for cash or other collateral.

MCSD can provide functions for executing and settling securities lending transaction in DTGS system with simultaneous fulfillment of obligation to transfer securities and transfer cash funds, arising from the securities lending contract secured by the cash or securities (pledge).

Settlement of initial delivery

Once the obligations of the trade participants is calculated, the settlement of securities loans or funds involves the transfer of securities from the lender (securities holder) to the borrower and transfer of collateral from the borrower to the lender. Depending on the type of collateral used, settlements may take place on a DVP or DVD basis.

The instruction to transfer the securities and funds necessary to discharge the obligations are transmitted to the MCSD by the MCSD member. The MCSD member, maintaining securities holder's (lender) account, enters and send in the MCSD DTGS lending function the DTGS lending order:

- Party to the trade (holder of securities/lender):
 - Single identity code (NIN/IDN)
 - Securities account number the code of the member maintaining the account
 - Party's cash account number
 - Bank maintaining the party's cash account and code of the bank as member of the MCSD (if the bank is a MCSD member)
- Other party to the trade (borrower) and the bank account number and code of the bank as member of the MCSD (if the bank is a MCSD member)
- Collateral
 - Securities (DVD transaction):
 - code of the security

- Quantity of the security
- Secured by the pledge: yes/no (if yes - pledge data plus entitlements beneficiary)
- Cash
 - Principal value
 - Currency (if applicable)
 - Interest (if applicable)
- Maturity
 - Open (on demand), or
 - Date plus automatic return of securities to the lender (yes/no)
- Mark to market: yes/no:
 - If yes, then:
 - Securities collateral (market price of collateral securities):
 - Under min. price (% or fix.) – transfer of additional securities to the lender;
 - Over max. price (% or fix.) – return of securities to the borrower (quantity),
 - Cash collateral (market price of lendec securities):
 - Under min (% or fix): return of cash (value) to the borrower,
 - Over max (% or fix): transfer of additional cash to the lender.

With sending the order, MCSD provides for the receipt of the order by the counterparty's (borrower) MCSD member and confirmation (or rejection) of the order by such member, after the verification of the trade details. With the order-confirmation instruction, MCSD blocks the securities on the lender's securities account and in the case of "securities collateral", block the securities on the borrower's securities account.

In the case of "securities collateral" function, MCSD simultaneously records the transfer of securities from the lender's account to the borrower's account. If the securities loan is collateralized by other securities for the pledge, MCSD settles the transaction by recording the pledge right on the (sub)account of the borrower for the securities in question. Release of the securities block entry and DVD (or delivery versus pledge) transaction is automatically executed as one action in the MCSD.

When cash is used as collateral, a securities loan transaction is settled on a DVP basis, where the securities delivery takes place if, and only if, payment of cash collateral occurs at the same time. Cash payment is provided by the borrower instructing his bank to transfer cash to the MCSD operator's account opened within the payment system.

After blocking the securities account of the securities' lender (securities holder), MCSD provides transfer of the securities to the borrower's securities account after the MCSD operator receives a SWIFT message information for crediting the MCSD operator's cash account within the payment system, and consequently debiting the account and crediting the securities lender's cash account of commercial bank, with the reference to the securities lender's account with that bank.

Inter-settlement events

Once settlement of the initial leg of the loan is complete, there are various actions that must be managed throughout the duration of the loan in order to insure the loan. Throughout the life of the securities loan, the securities lender has the right to maintain the value of the collateral in relation to that of the securities on loan. This process entails

the daily revaluation - at current market prices (marking-to-market) - of the loaned securities, or securities pledged as collateral.

MCSD supports the optional marking-to-market function. Real-time price information feeds are available from the exchange system interface to track exposure. The borrower's (or as pledgor) MCSD member is notified of insufficient collateral (margin calls) while the lender (or as pledgee) must return excess collateral. Margin calls are only triggered when the value of collateral falls below a trigger point set at - or at an agreed level - below the required collateral level (e.g. % of the value of the cash or securities lent). Margin calls must be settled promptly. A margin call can include securities other than originally pledged. directly on T+1 (margin call).

Throughout the life of the securities loan, securities loaned may be subject to additional:

- Securities transfers as collateral
- Securities pledge as collateral
- Cash transfer when cash is used as collateral

Example: Securities loaned: 100.000 XY Price XY: 101 L.E. Total: 10.100.000 ratio= 1,485 for XY Collateral (securities): 10,000 WZ Price WZ: 1500 L.E. Total: 15.000.000 L.E.	
a) New Price WZ: 1600 Total: 16.000.000 L.E. Ratio: 1,485 Collateral: 9375 WZ Transfer Back: 625 WZ	b) New Price WZ: 1300 Total: 13.000.000 L.E. Ratio: 1,485 Collateral: 11,538 WZ Additional Transfer: 1538 WZ

MCSD could support both automatic and “manual” margin calls, and the automatic and “manual” function of transferring/re-delivering of excess/insufficient collateral securities or cash. Such transfers are made by individual transactions. MCSD provides MCSD participants and their customers with real-time information to promptly verify margin marks and are able to clear any payment or securities transfers obligations.

Settlement of the return leg

Settlement of the return leg transaction entails the borrower transferring securities borrowed to the lender and the lender returning the collateral provided by the borrower, e.g.:

- Transferring securities to the lender
- Releasing the pledge on the borrower’s securities
- Cash payment to the securities borrower’s cash account

If the option for the “automatic return leg” is selected in the initial delivery, then on the loan’s maturity date, MCSD automatically debits the securities borrower’s securities account and credit lender’s securities account, if quantity available. In this case, the return leg settlement is not performed on the DVP/DVD basis.

Otherwise, transactions are settled in the MCSD system »inversely« to the original DTGS lending, on the basis of the return order, issued by the securities borrower, with

the transaction DTGS securities lending release. The MCSD member, authorized by the securities borrower to execute such transactions, enters DTGS lending order into the MCSD.

Such DTGS lending release order contains the following:

- Party to the trade (borrower)
 - Securities account number the code of the member maintaining the account
 - Party's cash account number and bank maintaining the party's cash account and code of the bank as member of the MCSD system (if the bank is a MCSD system member)
- Other party to the trade (securities lender)
 - Securities account number and the code of the MCSD member, maintaining the account
 - Party's cash account number and bank maintaining the party's cash account and code of the bank as member of the MCSD (if the bank is a MCSD member)
- Code of the security loaned
- Quantity of the security loaned
- Collateral
 - Securities
 - Code
 - Quantity
 - Type of collateral: pledge (pledge release), securities transfer (securities return)
 - Cash
 - Amount
 - Currency

After the entry of a DTGS loan-release order the borrower's member of the MCSD enters post function of order in the MCSD. The MCSD executes such an order in the system in the following way:

- The lender's MCSD member receives the order in the MCSD.
- The MCSD designates a reference number to the pledge order, available to the both MCSD members.

The lender's MCSD member is able to approve (posted) DTGS loan-release order in the MCSD if the DTGS order contains all the elements of the contract and other information, which matches the data from the order.

MCSD executes the lending-release order by transferring the borrowed securities to the lender's securities account with the simultaneous transfer of collateral securities from the lender's account to the borrower's account, or executes a pledge release on the lender's account, when the loan is collateralized by securities.

In the case of cash collateral, the securities lender provides for delivering to the bank maintaining his (transaction) account a payment instruction with the reference number of the DTGS pledge-release order, allocated in the MCSD, to execute payment to the borrower's cash account. On the basis of the received payment order, the bank maintaining the cash account of the lender, sends a SWIFT message MT 100, crediting the MCSD's clearing account. When the MCSD receives funds from an DTGS lending-release order, it provides for the transfer of funds to the borrower's bank by preparing, entering and sending to the payment system a SWIFT message MT 100. After execution

of the payment order, MCSD executes a release securities freeze, registered on the borrower's securities account and transfers the quantity of securities, stated in the relevant DTGS lending release order, to the securities account of the lender.



CAPITAL MARKET AUTHORITY
and
EGYPT FINANCIAL SERVICES PROJECT

“NFI, Laws and Regulations”
“Securities Clearing & Settlement
Central Securities Depository”

by

Peter Premk

June 10, 2005



Securities Settlement System (SSS) Definition

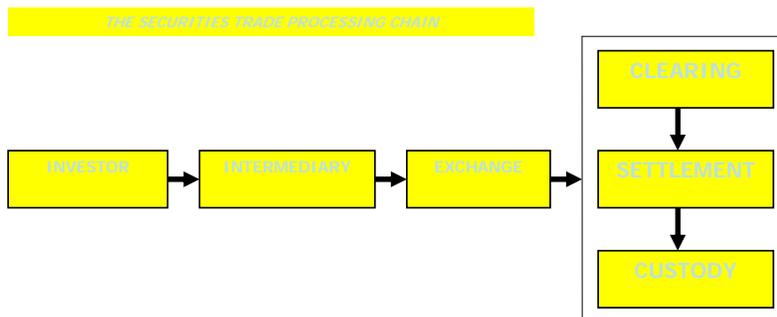
- SSS makes sure that contractual obligations from the contract, concluded on the exchange, are fulfilled,
- Valid (locked-in) purchase contract, agreed on the terms of the transaction at the exchange, on behalf of investors,
- Buyer receives securities, seller receives payment.

Legal Framework

- The reliable and predictable operation of an SSS depends on:
- The laws, rules and procedures that support the holding, transfer, pledging and lending of securities and related payments
- How these laws, rules and procedures work in practice – whether system operators, participants and their customers can enforce their rights.

3

Securities Settlement System Functions



4

Securities Settlement System Functions

- Three core functions
 - Clearing,
 - Settlement,
 - Custody.
- Main contractual participants:
 - Brokers and banks (settlement)
 - On their own behalf,
 - On behalf of the clients,
 - Banks (cash payments)
 - Central bank payment system (cash payments)
 - Clearing house (clearing, pre-settlement),
 - CSD (settlement, custody).

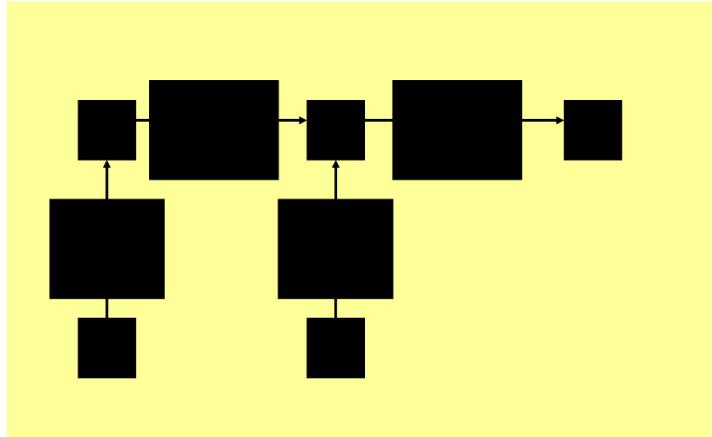
5

Clearing

- Processing of transactions in preparation for the fulfillment of all obligations,
- Levels:
 - By trading parties for their clients (accounts positions),
 - At central counterparty clearing house (netting, position management, collateral & risk management)
 - At central securities depository (CSD) and/or banking institutions (validating and matching the delivery instruction),

6

Clearing Details By Contractual Parties



7

Clearing Cash Balance

	A:	•
Claims:	+1000 \$ against B	•
Obligations:	-800\$ to C	•
Net:	+200	•
	B:	•
Claims:	+1800\$ against C	•
Obligations:	-2500 \$ to C	•
	-1000 \$ to A	•
Net:	-1700 \$	•
	C:	•
Claims:	+800\$ against A	•
	+2500\$ against B	•
Obligations:	-1800\$ to B	•
Net:	+1500\$	•
Total	0	•

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Clearing – Multilateral Netting Principle

- A net credit or a net debit position only, for each participant
- Necessary clear and enforceable contractual provisions governing the netting operations
- Legal application: novation
 - Subjective: replacement of the subjects (parties) of the contract
 - Objective: replacement of the nature of the contract (purchase to donation)
- Clearing institution or CSD being a legal counterparty to both sides of a transaction
 - Becomes the buyer to every seller,
 - Becomes the seller to every buyer,

9

Default rules on net positions

- Contract concluded on the exchange remains valid and enforceable
- - Failure on securities side, legal consequence:
 - Annulment of the exchange contract?
 - Requirement for “substitute” delivery?
 - ✓ CSD “buy in” procedure and fulfillment of delivery obligation on behalf of the defaulting party.
 - ✓ “Tightly coupled system” – verification and blocked securities after the exchange trade.
 - default on cash side,
 - Collateral,
 - Risk management

10

Settlement

- Transfer of ownership of the securities (CSD, Custodians),
- Transfer of the related cash (CSD, Central bank, corresponding banks)
- Main principles:
 - Delivery versus payment (DVP),
 - Finality of transfers

11

Delivery Versus Payment

- Different models varying according to whether securities and/or funds settled on a gross or net basis,
- DVP does not require strictly simultaneous transfer of funds and securities,
- Underlying securities are blocked in the account of the seller,
- The securities are transferred to the buyer if and only if the CSD receives confirmation of settlement of the cash leg from the payment system

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Finality of Transfers

- Important legal consequences if transfers are not final
- Cash leg legal requirements
 - Debt novated to CSD according to the netting arrangement,
 - Enforcability of debt should not diminish when debt is transferred,
 - Transferability: if a third party who is assigned the debt retains the same creditor's rights against the debtor,
 - Finality: when debt extinguishes on obligation between two parties (if final discharge has not occurred than parties have recourse, or the right to compel the other side to undertake additional actions in fulfillment of the contractual obligations)

13

The Concept Of Discharge

- Payment, settlement, discharge?
- Definition of payment/transfer order:
 - Issuer,
 - Amount,
 - No condition,
 - Account debit,
 - Directly transmitted.
- Trigger event - when beneficiary's bank accepts a payment order – until that moment, the originator can be liable for breach of contract on the grounds of non-payment,
- The right of the receiving bank to be paid for the accepted order, at the designated time,
- Receiver Finality Rule – unwind exceptions, fraud exception, insolvency law?

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Concept Of Finality

- Parties of the contract or third parties do not retain the right (by law or agreement) to rescind the transfer,
 - Example - U.C.C. Article 4
 - (a) An item is finally paid by a payor bank when the bank has first done any of the following:
 - (1) paid the item in cash;
 - (2) settled for the item without having a right to revoke the settlement under statute, clearing-house rule, or agreement; or
 - (3) made a provisional settlement for the item and failed to revoke the settlement in the time and manner permitted by statute, clearing-house rule, or agreement.
 - (b) If provisional settlement for an item does not
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Finality of Transfers

- Securities leg
 - Final transfer orders related to securities,
 - Ensure that transfer orders can be considered final and irrevocable once they are introduced into the system,
 - Prohibition of revocation of transfer orders once they have been accepted by securities settlement systems,
 - Rules of the CSD, timing,
- Exceptions? (Court orders, writ of executions,...)

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Custody

- CSD:
 - Registration of title, record of debits and credits in a securities account as the evidence of transfer and registration of title
 - Other services:
 - Accounts maintenance,
 - Off exchange transactions:
 - Securities transfers,
 - Inheritance transfers – natural persons
 - Mergers, dissolutions, liquidations – legal persons
 - Pledge transactions,
 - Court orders processing.
- Corporate actions

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Definition of Property Interests

- The securities ownership can no longer be defined in terms of actual possession of physical certificates,
- The concept of “regular deposit” (investor has traceable property rights) might be inappropriate,
- The concept of “irregular deposit” – the deposited securities become a property of the intermediary, might be inappropriate (intermediary insolvency, sharebook records,...),
- ✓ Interest in a pro-rata portion of the pool of securities, evidenced solely by the investor's account with the intermediary.

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Pledging

- Pledgor's actual possession of physical securities to obtain valid pledge is no longer possible,
- Secured creditor to obtain "control" over the pledged interests on the books of the intermediary,
- Special account in the name of pledgee,
- Right to liquidate the securities without any further action by the pledgor,
- Right attached to the security, rather than "blocking" than transfers of securities,
- Entitlement to the benefits (dividends, benefits, voting rights,...).

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Court Order Processing

- Transactions on the basis of the court orders:
 - Intermediate court order – court decision requesting disposal restriction on securities,
 - Lien of execution, lien of attachment,
 - Writ of execution -property to be restored or transferred in satisfaction of debt.

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Court Orders And Pledges Relationship

- Priority of liens/pledges
- Enforcability of court orders over pledges?
 - NO
- Exceptions?

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Securities Fraud

- Securities evidenced on “multiple level” securities account:
 - Intermediary,
 - CSD central register,
 - Issuer sharebook
- False, forged ID card and identification,
- Opening the account with the broker under false identification,
- Transaction (sell) order under false identification,
- Cash withdrawal under false identification.

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Liability

- CSD Liability?
- CSD participant's (selling broker) liability?
- Court of First Instance, and Supreme Court decided on Joint and Several Liability
 - CSD objectively (absolute) liable for the damages according to the provisions of the Securities Market Laws

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Objective (Absolute) Liability?

- Concerning liability in order to ensure a high level of securities holders protection against damage caused,
- Establishes the principle of objective liability or liability without fault of the operator in cases of damage caused, If more than one person is liable for the same damage, it is joint & several liability.
- Burden of proof: the injured person must prove:
 - the actual damage;
 - the defect in the product;
 - the causal relationship between damage and defect

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Casual Relationship?

- Publicity of sharebook information,
- Change of information control,
- Holder's identity verification,
- Account opening,

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CSD Regulation Objectives

- Public utility services
- Private commercial services
- Mixture

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THE END

Thank You

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