



# Misr Company for Clearing, Settlement and Central Depository



**Thomas Murray CSD Public Rating for : Misr Company for Clearing, Settlement and Central Depository is A**

CSD Rating	Overall Rating	Asset Commitment Risk	Liquidity Risk	Counterparty Risk	Financial Risk	Operational Risk	Asset Servicing Risk
MCDR Rating:	A	A+	A	A+	A+	A	A

## The outlook for the rating is: Stable

### Overall Risk Summary

Thomas Murray has assigned an overall central securities depository risk rating of A to Misr Company for Central Clearing, Depository & Registry (MCDR), which translates as low risk. The rating is a weighted average of six different risk components comprising of Asset Commitment risk, Liquidity risk, Counterparty risk, Financial risk, Operational risk and Asset Servicing risk.

MCDR operates a settlement, custody and registration facility for the Egyptian market. The design of the settlement system is primarily focused on minimising Counterparty risk exposure. Settlement between brokers is on an interdependent Delivery-Versus-Payment (DVP) basis, with book-entry transfers in MCDR linked with settlement in same-day central bank funds in the Central Bank of Egypt (CBE). Selling client's securities positions are electronically blocked on trade execution, ensuring that securities should always be available for settlement. However, client-side settlements between the broker and custodian are not centrally administered in MCDR, instead being co-ordinated by local custodians. This mechanism is ensuring DVP for the custodian, but not for the local broker. Local brokers are also carrying a liquidity burden for their foreign clients, who typically do not pre-fund them. Brokers source funding from local banks and recover the costs through their commission, which is adding to the trading costs in the market.

MCDR operates the Settlement Guarantee Fund (SGF) which pro-actively intervenes to assure settlement, and has been successful in achieving a near 100% settlement rate for the market. Although short selling and securities borrowing and lending facilities were introduced into the Egyptian market in April 2008, the SGF continues to resolve short securities positions by advancing 'virtual' securities to the short broker for delivery. Although risk controls are maintained, this approach is not consistent with best market practice.

MCDR, as central registrar, plays a key role in Asset Servicing in the market, especially in successfully providing services to a large retail investor client base. The dividend distribution service is extremely flexible and client-friendly, with the ability to pay directly into bank accounts domestically and overseas. However, corporate action notifications are still captured manually, and information processing is still reliant on extensive re-keying and data input. MCDR takes no liability over the quality of event notifications, but assumes liability for incorrect or non-execution of corporate actions.

MCDR is a not-for-profit utility, owned by its participants, and provides a number of free services (especially for its large retail client base). However, it has always been operationally profitable, and is well capitalised, especially as an emerging market depository. Paid-in capital has been doubled in 2007 to EGP 80 million (USD 14.2 million) in preparation for a sizeable

investment in new facilities and commercial enterprises in the next few years. MCDR carries insurance coverage of EGP 38 million for theft, fire, vaults, computer hardware, systemic and operational risk, but has no Professional Indemnity or Bankers Blanket Bond coverage.

MCDR has immobilised over 92% of eligible securities but is still processing deposits daily and is still maintaining physical certificates in its vaults (even where the issue is 100% immobilised). Although MCDR has developed its own systems in-house which are effective, there is still potential for further automation, particularly in its interfaces with issuers and custodians. MCDR has extensive operating documentation and strict internal control mechanisms to manage operational risk exposures. However, although internal audit arrangements were intensified during 2007, not all activities were reviewed during the year and no external audits on operational controls were undertaken. MCDR management has supplied signed Internal Control representations to Thomas Murray attesting to the sufficiency of internal controls and procedures.

Disaster Recovery plans are in place and back-up servers and communication lines are able to resume operations within 5 hrs of a major disaster. MCDR's Business Continuity Facilities were refitted and upgraded in 2007.

## Outlook Summary

Thomas Murray has assigned an Outlook of Stable. There are two projects which have the potential to beneficially impact Liquidity and Operational Risk exposures though they are still in the process of being widely utilised in the market. These are the introduction of a Securities Lending and Borrowing facility allied with short selling permissions, and the development of SWIFT 15022 messaging (especially for brokers).

## Role of the Depository

Misr Company for Central Clearing, Depository & Registry (MCDR) is the sole Egyptian CSD providing clearing and settlement services to the Cairo and Alexandria Stock Exchanges (CASE). MCDR operates both the depository and the clearing house through a single entity. It is a not-for-profit private company owned by the stock exchanges, local banks and its participants. It was incorporated under the Capital Market Law No. 95 of 1992 and its executive regulations, commenced operations in October 1996 and is currently governed by the Depository and Central Registry Law No. 93 of 2000. It is regulated by the Capital Markets Authority (CMA).

Membership is given to brokers, licensed custodians (bookkeepers), mutual funds, clearing members, pension funds and issuers. Banks may serve the role of a custodian, as well as any other entity after fulfilling the CMA requirements. The CMA Decree 7, which introduced the licensing requirement for custodians (bookkeepers), prohibited local brokers from providing custodian activities from 13 January, 2002, but they can apply for a custodian license if they fulfill the CMA capital requirements. Licensed custodians track holdings in securities at the investor level.

All issues were originally targeted to be immobilised by the end of 2005, but this period has been extended. MCDR acts as central registrar for all Egyptian securities deposited in its custody, and all securities must be deposited at MCDR to be traded on the CASE. Physical certificates will remain in custody at MCDR until the immobilisation process is complete. Around 96% of EGP denominated equities and 92% of EGP denominated bonds are now held in immobilised form at MCDR. The vast majority of securities are registered (there is only one bearer issue) usually in the name of the beneficial owner. Law 93 introduced the legal foundation for the nominee concept allowing custodian banks, depository banks, asset managers and any other activity issued by a ministerial decree, after consulting the CMA, to apply for a licence to become a nominee through the CMA.

MCDR supports the settlement of equities, corporate and government debt that are traded on the stock exchanges and unlisted securities which trade OTC. MCDR also settles Treasury Bond transactions. Treasury Bills are cleared and settled by the Central Bank of Egypt (CBE).

<b>Risk Summary</b>	<b>Risk</b>
<b>Overall Risk</b>	<b>A</b>
<b>Asset Commitment Risk</b> MCDR provides DVP for brokers' market side transactions with overnight asset commitment risk. Buying brokers must fund their accounts at their settlement bank by 2pm SD-1, receiving securities at 8.30am SD, an asset commitment period of 18.5hrs. Selling brokers must have securities in their accounts by 6pm SD-1 and receive sales proceeds by 8.30am SD, an asset commitment period of 14.5hrs. While the securities move by book entry within MCDR, the funds are transferred over accounts at the Central Bank of Egypt (CBE).  Client-side settlements between brokers and custodians are not DVP. Custodians protect foreign investors' assets by not releasing either securities or funds until countervalue has been received from the broker. This process is usually completed within 40mins, but there is variable asset commitment risk exposure depending on how quickly custodians release client's assets after the broker has delivered.  Although the end investor's asset commitment risk exposure is outside of the scope of this analysis, it is worth mentioning that due to the requirement to block selling client's positions on trade execution until settlement between the client's custodian and broker, a (foreign or local) seller's securities can be blocked by up to 15.5hrs. Foreign buying investors have no such exposure, since brokers generally fund these positions until settlement with the local custodian on SD-1.	<b>A+</b>
<b>Liquidity Risk</b> Local buyers suffer liquidity risk caused by the need to pre-fund their local broker by SD-1, whereas foreign investors suffer no such risk. However, this shifts the liquidity burden to the local brokers who typically need to source overnight liquidity facilities from local banks. Sellers suffer liquidity risk exposure by the requirement for securities to be sold to be blocked on the selling client's account at the custodian from TD until transfer to the broker's account by 6pm SD-1 (T+1 for liquid securities). Netting is only provided for cash, resulting in high liquidity demands on securities, particularly given the disjuncture between client-side and market-side settlement timings.	

<p>Short selling and securities lending were introduced in the market on 24 April 2008. Moreover, the SGF runs a facility providing 'virtual' securities to selling brokers left short by non-delivery from their clients. Although risk controls are applied to this facility, this is not consistent with best market practice.</p> <p>The Settlement Guarantee Fund (SGF) acts as a risk intermediary penalising late settlers and backing settlement through buy-ins on SD. The SGF is proactive in intervening prior to SD, but has only had to do so for 0.6% of transactions (by volume) in 2006. Its interventions have resulted in a near 100% settlement rate for 2006.</p>	<b>A</b>
<p><b>Counterparty Risk</b></p> <p>The blocking of securities positions on trade execution mitigates against delivery failures. Inter-broker (market-side) settlements are conducted on an inter-dependent DVP basis with payment in central bank funds. Broker-custodian (client-side) settlement is controlled by the custodian to ensure the custodian (and hence their local/foreign client) receives DVP, but the local broker does not. The length of the broker's risk exposure is typically short (~40mins), but is dependent on the processing efficiency of the custodian. Since, virtually all broker activity in the market is agency based (i.e. they are not taking proprietary positions), the degree of counterparty risk exposure that can be built up by a broker should be low.</p> <p>Nevertheless, the Settlement Guarantee Fund (SGF) monitors the counterparty risk of brokers, and attempts to ensure that their open positions are covered sufficiently by their contributions to the Fund. Payments are protected by the CBE, and counterparty risk is dissipated by having multiple clearing banks (7). However, average credit ratings for Egyptian banks are around the BB+ mark. The CBE requires all local banks to hold a 14% reserve at the CBE.</p>	<b>A+</b>
<p><b>Asset Servicing Risk</b></p> <p>Issuers are obliged by MCDR general terms and conditions to supply MCDR with all corporate actions information. The process for uploading information into MCDR's system and passing this to its participants requires manual intervention. MCDR accepts no responsibility for the accuracy, completeness and timeliness of this information, unless it is due to a transcription error on MCDR's part. Corporate action information processing is still reliant on manual procedures. MCDR does accept responsibility for missed corporate action deadlines where it has not received the necessary information from the issuer. MCDR has established a financial provision of 0.35% of total dividend coupons payable to guard against claims made against them as paying agent. MCDR does provide electronic proxy voting services, but this is not yet being widely used.</p>	<b>A</b>
<p><b>Financial Risk</b></p> <p>MCDR is well capitalised for an emerging market depository, and doubled its issued capital in 2007 in preparation for an extended substantial investment in various service developments and commercial ventures. MCDR profitability has increased since the restructuring of the company in late 2005. Although the depository operates a not-for-profit model, it has always been operationally profitable.</p> <p>MCDR has insurance policies in place covering theft, fire, vaults, computer hardware, systemic and operational risk. Legal claims against the depository are outstanding, but only as co-defendant with other capital market entities (e.g. CMA, CASE), and MCDR has made provision against the possibility of such claims in its balance sheet. MCDR is obliged by law to pay direct and consequential losses where it is at fault.</p>	<b>A+</b>
<p><b>Operational Risk</b></p> <p>MCDR operates a strong internal control culture designed to minimise operational risk exposures. However, the internal audit department has only recently become sufficiently resourced to operationally audit all critical departments on an annual basis. There is no external operational audit conducted. MCDR management has made signed Internal Control representations to Thomas Murray attesting to the adequacy of internal controls and procedures. For the introduction of new systems and services, all controls and audits are subject to revision by the internal audit committee, which consists of members of the MCDR Board, the internal audit department manager and a representative from MCDR's external (financial) auditors.</p> <p>Although, a vast proportion of certificates are immobilised, individual certificates are still held, even in issues that are 100% immobilised. MCDR has developed a range of proprietary systems for communication and processing, and ISO15022 messaging standards and electronic signatures are being built into the system at the start of 2008.</p> <p>DRP arrangements exist that involve a recovery period of 5 hours to the back-up site system. A disaster recovery test on the CASE link is conducted quarterly, but the plan is not regularly tested in a live environment with all depository participants. Business Continuity facilities are currently</p>	<b>A</b>

being renovated, and operational risk exposures would be significant were MCDR's main site be rendered inaccessible before the back-up site is finished.	
<b>CSD on CSD Credit Risk</b> MCDR has a co-operative agreement with depositories in Abu Dhabi and Kuwait and with Midclear in Lebanon, but no settlement links have been built. MCDR has recently established a link with Clearstream ICSD. A link with Euroclear Bank is in progress.	<b>Links Exist</b>

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## Asset Commitment Risk

### Summary

MCDR provides DVP for brokers' market-side transactions with securities moving by book-entry within MCDR, and the funds being transferred over accounts at the CBE on T+2 (for all immobilised securities). For selling brokers, their asset commitment period runs from 6pm SD-1 (deadline for securities positioning) to 8.30am SD (cash finality in CBE), giving an asset commitment period of 14.5hrs. Purchasing brokers are expected to pre-fund their account at their settlement bank by 2.00pm on SD-1 and normally receive the securities in their account at 8.30am on SD through MCDR. This generates a minimum asset commitment period of 18.5hrs.

Client side settlements between brokers and custodians are not true DVP, with the relation between delivery and receipt controlled by the custodian. Custodians do not release client assets until receipt of countervalue from the broker, ensuring the custodian (and their client) receives DVP but not the local broker. The process is normally completed within 40mins, but there is no standardisation in this process meaning brokers could be exposed for variable times.

All listed stocks in the market settle on T+2. There is also an optional same day trading and settlement cycle (T+0) if the investor buys the stock and sells on the same day. This market accounts for around 1-1.3% of market activity, and there is no asset commitment periods for these activities since buy and sale deliveries are netted out ('zero sum') with only the cash difference being transferred.

The settlement cycle for dematerialised Treasury bonds has been established at T+1 - for foreign investors' sale transactions of T-Bonds settle on trade date and purchases on T+1.

### Processing Cycles

The settlement chain involves the selling custodian delivering to the selling broker, who then settles within MCDR against the buying broker, who then delivers to the buying custodian (all via the relevant bookkeeper). From 6 May 2007, settlement was harmonised on T+2 for all on-market equities transactions.

There is also an optional same day trading and settlement cycle (T+0) if the investor buys the stock and sells on the same day. In case the investor does not sell on TD, the settlement takes place on T+2 automatically for both the buy and sell legs. Brokers must pre-fund a balance of EGP 5 million for same day trading. Same day trading accounts for between 1%-1.3% of market volumes.

Treasury bonds follow a T+1 market settlement cycle. Due to the settlement process in the market, foreign investors' sale transactions of these instruments settle on trade date and purchases on T+1.

### On-Exchange Transactions - T+2 settlement

Automatic pre-sale blocking of shares at MCDR was introduced on 3 March 2005. Its system is electronically linked to the Cairo and Alexandria Stock Exchanges (CASE) trading system. Executing brokers send blocking requests via the MCDR system to custodians and acknowledged blocked requests are reflected on the executing local broker's trading terminal at the CASE, as available for sale.

After the end of the CASE trading session at 2.30pm, matched completed transactions are fed to the MCDR system between 2.45pm – 3.00pm TD. Immediately after the trading session between 4.30 pm – 5.00 pm TD and again at 8.30am on T+1 (SD-1), brokers receive a report of their net settlement obligations through the MCDR proprietary system. Buying brokers must fund their settlement account with their banks by 2pm SD-1 (T+1). Selling brokers must have sufficient securities in their accounts (having been transferred by the custodians) by 6.00pm SD-1. Once MCDR has verified that sufficient securities and funds cover is available, it begins the securities settlement processing at 12.00am (midnight) SD and completes it between 1.00am-1.30am (SD). However, practically participants only see securities finality in the system when system access is available at 8.30am SD.

Once securities finality has been achieved at 8.30am SD, MCDR instructs the Central Bank of Egypt (CBE) to execute cash settlement (see Cash Settlement section).

### On-Exchange Transactions - TD settlement

MCDR runs a designated same day settlement service for same day trading, but this only accounts for between 1-1.3% of MCDR's total settlement volume (average from 1/1/07 – 22/7/07). Day trading is restricted to first buying, then selling securities (at least until the introduction of short selling). Brokers buy first from the market and then block the shares in a suspense account through a specific screen provided by MCDR, before selling the securities in the market. If the broker succeeds in the sale, the broker is notified by an instant execution confirmation coming from CASE via the FIX system whether they have to settle a cash debit or credit from the trade. This must be settled at 4.30pm at the latest.

In the same day trading environment there are no custodians involved as the broker first buys then sells so the net securities position is zero. However, since the broker must record the buying order in CASE like any regular transaction, a custodian must be recorded. Thus, in case the broker does not sell the quantity bought and it goes to regular settlement on T+2, a presumed custodian account is automatically created on TD and then automatically transferred to the normal custodian on T+2 for unsold securities.

#### Broker to Custodian Settlement

There is no matching service provided by MCDR to match buy and sell side settlement instructions. However, pre-matching is an established practice between brokers and custodians, with brokers faxing their invoice receipts to custodians by 9.00am on T+1. Custodians match these invoices against their client's settlement instruction to validate the transaction and initiate the transfer of the securities from their client's account to the broker's account. For fixed income securities, there is also a requirement to include the yield rate in all RVP/DVP settlement instructions to improve the matching services.

The broker-custodian settlement process is currently controlled by the custodian. For sales transactions, securities are transferred within MCDR upon transmission of a Free Delivery Order (FDO) from the custodian's client's account, to the account of the executing broker. The custodian only sends the FDO upon receipt of confirmation that the broker has deposited funds by 2.00pm SD-1. The custodian transfers the securities to the selling broker via FDO by 6.00pm SD-1. If securities that have been sold are not in the broker's account by this time, the broker-broker DVP settlement will require the intervention of the Settlement Guarantee Fund to complete settlement (see Liquidity Risk).

For purchase transactions for foreign investors, brokers' must fund their accounts with their settlement bank in advance of receiving the funds on SD from the custodian. The broker initiates a FDO by book entry on SD to the custodian, following receipt of the underlying securities in the 8.30am inter-broker settlement processing by MCDR. The custodian pays the broker upon receipt of securities, via account transfer before the close of the funds transfer system at 4.30pm on SD.

#### OTC Transactions

On 1 July 2002, the Egyptian market implemented an OTC trading procedure that required the involvement of a licensed local broker. Processing of OTC instructions is executed using a special instruction form approved by the exchange. The clearing and settlement process is identical to that of listed shares, namely; via MCDR to ensure proper adherence to the rules and regulations, such as identification of customer, assuring ownership rights and eligibility of the shares.

#### Free of Payment Transactions

The MCDR system is open for FOP transfers between 12.00pm and 2.00pm with all DVP transfers taking place within a single batch at 8.00am SD.

### Cash

#### On-Exchange Transactions - T+2 settlement

Brokers are not eligible to open accounts at CBE, so three accounts are opened at one of the clearing banks, either Banque Misr, Misr Iran Development Bank, Arab African International Bank, Piraeus Bank, Ahly United Bank, Commercial International Bank (CIB) or the National Bank of Egypt (NBE). These three accounts are a Current Account (for the broker), a Settlement Account (for settlement in MCDR), and a Credit Account (for transfer of funds between the broker and their client).

MCDR nets cash obligations amongst broker counterparties. For payments between counterparties utilising the same settlement bank, MCDR instructs the settlement banks at 8.00am on SD to pass debit/credit entries to the brokers' cash accounts via intermediary accounts opened by MCDR at each of the settlement banks. This process is completed around 8.30am SD.

MCDR also sends net cash settlement instructions to CBE via manually generated SWIFT MT202 (General Financial Institution Transfer) instructions to settle positions amongst the clearing banks. Although payments are considered by CBE irrevocable and final as soon as they are entered into the system, due to the absence of a direct link of the large value payment system to the central accounting system of CBE, the actual settlement takes place after the closing of the system (4.30pm) with final funds credit/debit at 8.00am SD+1. Therefore, the current large value system must be regarded as a gross system with deferred settlement.

#### Broker to Custodian Settlement

Funds settlement for broker-custodian settlement is outside of MCDR's operational scope and is under the control of the custodian. Brokers typically maintain accounts at the custodian their clients use; hence, settlement is via inter-account transfer at the custodian.

For purchase transactions, the custodian initiates payment to the broker once the broker has delivered on the securities (via FDO) they have received in the 8.30am SD settlement batch. Custodians should pay brokers prior to the close of the payment

system at 4.30pm SD. For sales transactions, brokers must pay custodians prior to the custodian delivering securities via FDO on SD. Brokers can pay between 8.00am and 6.00pm, and can receive securities between 8am and 6pm.

### Asset Commitment Periods

Asset commitment periods vary depending upon the transaction and transacting counterparty.

For market-side settlements, buying brokers are expected to pre-fund their account at their settlement bank by 2.00pm on SD-1 and normally receive the securities in their account at 8.30am on SD through MCDR. This generates a minimum asset commitment period of 18.5hrs. Selling brokers must have securities in their account for settlement by 6pm SD-1, and typically receive sales proceeds into the settlement bank's account at 8.30am SD, giving an asset commitment period of 14.5hrs.

For client-side settlements, custodians control the settlement timing with the broker, not permitting release of client securities/funds until confirmation of delivery of countervalue from the broker has been received. Brokers therefore suffer variable asset commitment periods depending on the timing gap between the delivery to and from the custodian. This could be a maximum of 8hrs for buying brokers (8.30am SD onward delivery of securities received from the MCDR batch settlement, with latest payment being at 4.30pm SD), but is normally completed within 40mins. For selling brokers, the maximum asset commitment period would be up to 10hrs (earliest payment time at 8am SD-1 with latest securities delivery at 6pm SD-1), but again is normally completed within 40mins. However, these time gaps are dependent on the efficiency of the co-ordination by the custodian of the settlement with the broker.

Selling investors' securities are blocked upon execution of the sale transaction on Trade Date, by request of the selling broker to the custodian. In this sense the seller's securities are blocked within the settlement process for up to 15.5hrs (i.e. between start of trading at 10.30am and the receipt of funds from the broker at 2pm T+1). Buying foreign investors have no asset commitment risk exposure, since the broker typically funds their purchase, and the investor provides payment to the broker only after receipt of securities. However, local investors are expected to fund their broker before the 2pm SD-1 deadline for brokers to fund their accounts at their settlement bank.

### Irrevocability

Brokers have an irrevocable commitment to transfer assets by the relevant securities and cash deadline (6.00pm SD-1 and 2.00pm SD-1 respectively) where they have provided matched settlement instructions to MCDR.

According to Art. 12 of the Executive Regulations of Law 93 of 2000, 'If a court ruling is issued stating the bankruptcy of one of the participants, the company shall make the clearing and settlement for the transactions the participant made before the court ruling was issued even if the related procedures extended after the ruling is issued.' This ensures that transactions executed prior to default declaration are still settled.

### Finality

There are 48 articles in the Law and Executive Regulations which contribute to defining finality in the Egyptian settlement system. Securities transfers are considered to be final when the credit to the buyer's account is made by MCDR. Cash payments are irrevocable at 2.00pm on SD-1 and considered legally final when CBE receives the MCDR SWIFT instruction to transfer cash at 8.00am on SD when transfers are made across the clearing bank accounts at the CBE. Legal finality can be provided to the cash transfers pending in the CBE due to CBE's commitment to guarantee all payments through its system. However, practical finality on interbank cash clearing is at 8.30am SD.

The CMA has the ability to unwind a transaction in the event of misconduct by a brokerage firm or for the use of inside information. In such a case the counterparty responsible for the unwind is legally required to return any assets previously confirmed as settled. MCDR would enter counter-transactions in the system in such an event.

### Asset Commitment Risk - Key Indicators

#### Irrevocable commitment to the processing cycle

	<b>Transaction Type</b>	<b>Start</b>	<b>Finish</b>
<b>Securities</b>	Market side: Broker Client side: Broker Client side: Investor	6.00pm T+1 8.30am SD 10.30am – 2.30pm TD	8.30am T+2 4.30pm SD 2.00pm SD-1
<b>Cash</b>	Market side: Broker Client side: Broker Client side: Investor	2.00pm T+1 8am – 2pm SD-1 8.30am – 4.30pm SD	8.30am T+2 8am – 6pm SD-1 8.30am – 4.30pm SD

#### Comments (i.e., on pre-funding and irrevocability)

Local investors pre-fund purchases to their broker on SD-1. Non-resident investors, through their custodians, typically do not pay for their purchases until stock has been delivered on SD. Purchasing brokers end up funding their clients purchases from 2pm SD-1 until they deliver securities to the client (via the custodian) on SD. Brokers pay the funds to custodians

acting for foreign investors prior to the broker to broker settlement taking place within MCDR.

**Securities processing cycle outlined**

MCDR operates one overnight batch which is completed at 8.30am on SD. Sellers have to move securities to their selling broker by close of business on SD-1 (6pm) for placement into the overnight batch.

MCDR provides linked near-simultaneous DVP between brokers. Settlements between brokers and custodians are on a non-DVP basis with securities moving via bookkeepers' accounts through a Free Delivery Order (FDO) within MCDR and cash moving outside the settlement system. The interdependence of the movements of securities and cash is controlled by the custodian.

The settlement system is open for Free Delivery Orders (FDOs) between 8.00am and 10.00pm.

**Cash processing cycle outlined**

Brokers are required to open three cash accounts at one of the seven designated cash settlement banks, but typically hold accounts at each of the settlement banks to facilitate cash settlement with custodians. MCDR nets brokers cash settlements and settlement processing is contingent on brokers' accounts with their settlement banks being sufficiently funded prior to the overnight securities processing. MCDR instructs the settlement banks to move funds between brokers' accounts after it moves securities across bookkeepers' accounts. Cash movements between brokers and custodians are independent of the settlement system and take place on a bilateral basis by inter-account transfer at one of the seven settlement banks.

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## Liquidity Risk

### Summary

Local buyers suffer liquidity risk caused by the need to pre-fund their local broker by SD-1, whereas foreign investors suffer no such risk. However, this shifts the liquidity burden to the local brokers who typically need to source overnight liquidity facilities from local banks. Sellers suffer liquidity risk exposure by the requirement for securities to be sold to be blocked on the selling client's account at the custodian from TD until transfer to the broker's account by 6pm SD-1 (T+1 for liquid securities). Netting is only provided for cash, resulting in high liquidity demands on securities, particularly given the disjuncture between client-side and market-side settlement timings.

Short selling and securities lending were introduced in the market on 24 April 2008. Moreover, the SGF runs a facility providing 'virtual' securities to selling brokers left short by non-delivery from their clients. Although risk controls are applied to this facility, this is not consistent with best market practice.

The Settlement Guarantee Fund (SGF) acts as a risk intermediary penalising late settlers and backing settlement through buy-ins on SD. The SGF is proactive in intervening prior to SD, but has only had to do so for 0.6% of transactions (by volume) in 2006. Its interventions have resulted in a near 100% settlement rate for 2006.

### Processing Model

For settlements between brokers MCDR employs BIS Model 2 settlement, with the gross transfer of securities on a book-entry basis, followed almost immediately by the settlement of the cash on a net basis. Settlements between brokers and custodians are on a non-DVP trade-for-trade basis. The local broker typically funds the purchases for foreign clients from 2pm SD-1 until receipt of funds from the local custodian (from the investor's account) after receipt of stock from the broker on SD. For foreign clients, the broker typically funds this overnight liquidity by borrowing from its local bank. Local clients must pre-fund their broker by 2pm SD-1. Market volumes and size of trades are at present within reasonable levels so as not to put pressure on cash liquidity levels, and brokers recoup the costs of these bank credit lines for foreign client funding through their client commissions.

### Fails Management

A Settlement Guarantee Fund (SGF) has been established, operated by MCDR to provide additional protection within the market and also to enhance liquidity from forced settlement by either buying or selling in the market in the event that a participant fails to perform by SD. In 2007, the SGF had to intervene in only 0.07% of transactions (by volume) and 0.17% by value compared to 0.06% by volume and 0.19% by value in 2006.

Fails management procedures can be summarised as follows:

**Penalties** - The SGF new rule states that the defaulting broker will be penalised 0.5% (0.005) of the transaction value for each day a transaction remains outstanding, limited to the amount of the participant's contribution to the SGF. The defaulting broker begins paying the fine on SD+1 (fine covers SD and SD+1 value unsettled), would be fined again on SD+2 before 11.00am, and would be fined once more after 1.00am SD on the unsettled balance.

**'Virtual' Securities Lending** - Since the stock lending and borrowing arrangements have been approved and established, MCDR now lends stocks to cover short sales. However, for 'technical' fails, the SGF will still provide a 'virtual' loan of securities to brokers suffering a 'technical' short in a selection of equities issues on SD-1. For a fuller description of this facility, please refer to the information under Securities Lending below.

**Buy-ins** - For trades that remain unsettled by 11.00am SD+2, the SGF will activate the buy-in process. The failing broker will be responsible for any losses due to price differences and the payment of any additional costs associated with the buy-in. These charges, as well as any penalty levied, will be recovered from the members' contribution to the SGF. Failure on the part of a broker to settle the entirety of its obligations will have a negative impact on its rating and will increase the amount of the contribution it would otherwise be making to the SGF. Repeated offences could result in the suspension of the broker.

Participants needing to increase their contribution after each recalculation will be given 5 days grace period to make any required top up. If payment is not made after this period, MCDR will start charging a penalty of 0.5% (Fifty basis points) on the outstanding amount per day until payment is received.

### Credit Facilities

MCDR does not provide credit to participants. Foreign investors are allowed technical EGP overdrafts for a maximum of 7 days.

Brokers who require over-night credit to fund the settlement of purchase transactions undertaken for non-residents do so through facilities with commercial banks. Currently an active interbank repo market does not operate in Egypt to provide short-term liquidity between banks.

MCDR handles the administration of pledges between its participants and banks through a centralised service. No substitution of collateral is permitted without depledging and re-pledging, a process that takes one day. Once all pledge documents and forms are submitted to MCDR and they are correct, the pledge or de-pledge process only takes place within one working day within MCDR's system depending on the FDO batch settlements that take place three times a day prior the midnight settlement batch.

Typically, a 40% haircut on collateral is taken against the value of the loan, although this is at the banks (the pledges) discretion. The pledgees are also responsible for marking-to-market and calling additional margins. Only domestic securities are available for pledge.

### **Securities Lending**

MCDR commenced the operation of a full, centralised securities lending and borrowing (SLB) facility to support short selling on 24 April 2008. The facility will be implemented in two phases:

Phase I: SBL will include securities that follow the same day trading mechanism.

Phase II: SBL facility will be extended to all listed securities.

MCDR acts as principal for both lenders and borrowers. Securities lending occurs via a securities pool with all lending participant holdings. Forty-seven (47) securities will be eligible for short-selling/securities lending, including two USD-denominated securities. The lending pool will be open for all and is free of charge.

For failed on-exchange transactions, securities borrowing is mandatory. Securities lending will be optional. In case of failure to deliver shares on contractual settlement date, the selling broker is obliged to borrow the missing amount, versus a cash collateral of 125% of the actual sold shares value. The premium over the actual value is to cover price fluctuations where the actual premium will be announced two days prior to being applicable.

Collateral is managed and invested by MCDR, where returns on investments will be credited to lenders on a quarterly basis, after deducting MCDR commissions of 30%.

A lending agreement should be signed between lenders and their local custodians, before lenders offer any securities. Prior to executing a short sale, a broker has to request a loan to cover the position which is blocked in the same way as current cash transactions. Hence, short securities positions are identified on trade execution (through attempting to block securities for sale on the client's account, and obviously failing) and loans settle on the standard T+2 cycle. The maximum borrowing period is three days, after which a buy-in is executed by MCDR. The lender is entitled to all corporate actions related to the lent shares. Pledged shares can be offered for lending provided that the pledge agreement includes creditors approval on lending pledged shares.

Daily "Mark-to-Market" monitoring is conducted by MCDR, where if the closing price exceeds the actual trade price, the borrowing broker has to increase the collateral with the price difference.

Lenders are able to sell lent shares when needed with prior notification to MCDR on the same day. MCDR will then obtain the securities through another lender.

In cases where shares are unavailable to be lent, the buying broker will be approached to buy borrowed shares. If the buying broker is not able to buy the borrowed shares, MCDR will pay the lender the shares' value, based on the highest price of the trading session the lender wanted to sell the lent shares on. The client may also decide to continue lending the shares.

The lender may choose to recall shares from the lending pool through a request submitted to the lender's local custodian. Where the lending participant recalls its shares for any reason other than selling those shares and the shares were not actually lent, MCDR will provide the shares on the same business day. If shares had already been lent, the client request will be met either through a new lending transaction or actual purchase of the lent quantity from the market. If MCDR does not return the requested shares within ten days, the lender can decide between being paid the value of the lent shares as of the closing price of the period, or continue the lending process.

If profits are realised by the borrower as a result of a decrease in the market value of the lent securities, any profits will be debited from the borrowing broker's collateral and included within the lending returns.

Once borrowed shares are returned, shares are included again in the lending pool and cash collateral is credited to the selling broker's account held with one of the commercial banks.

The loan allocation system will be set in proportion to the available quantity offered by each lender.

In addition to this, MCDR runs a facility through SGF whereby SGF generates a 'virtual position'/temporary securities overdraft on a broker's account in case of non-delivery of the securities for sale by the client's custodian into the brokers account before

6pm SD-1. The virtual position/securities overdraft duration is limited to one day, and is reversed upon delivery of the securities to the broker. However, the selling broker does not receive the payment against the 'virtual' delivery. The proceeds are retained by SGF as collateral against the open position and is paid to the broker once the broker's client has delivered the real securities position. If the real securities are not delivered to the broker, SGF will invoke buy-in procedures. If a buy-in were to fail, the transaction would have to be cancelled and the delivery reversed. However, SGF mitigates this risk by only providing this lending facility on the 25 most liquid issues, and 15 issues of moderate liquidity. Around EGP 125 million (USD 21.5 million) of 'virtual' loans were processed in 2006.

According to MCDR, the traditional securities lending scheme will only be used in conjunction with the short selling regime. The virtual securities lending scheme, on the other hand, will still be utilised to complete settlement for foreigner investors who are not able to move securities into their accounts in time for settlement.

### **Registration Model**

For all shares that have been dematerialised into MCDR, records of ownership are maintained by the MCDR as central registrar. Law No. 93 of year 2000 obliged MCDR to hold shareholders' records approved by the Capital Market Authority (CMA) on behalf of the issuing companies. It has become the only record approved by the CMA.

Assets are registered at the MCDR in the beneficial owner's name and are held in individual beneficial owner accounts within the local custodian's umbrella account (nominee). Each beneficial owner is assigned a unique Unified Code. The regulation governing nominee accounts obligates the account holders to disclose the beneficial owners under these accounts. In addition MCDR ensures through its rules and internal controls that all beneficial owners under nominee accounts are disclosed by custodians.

Re-registration occurs instantaneously upon settlement.

### **Deposited securities**

As of July 2007, 1,208 issues were eligible for deposit to the MCDR, of which 708 are fully immobilised. The eligible issues cover 99% of the traded securities, in both equities and fixed income. Of these, 96.4% of EGP denominated shares, 94.6% of USD denominated shares, 92% of EGP denominated bonds, 100% of USD denominated bonds, and 96% of mutual fund certificates, are held in custody at MCDR. All securities not immobilised in MCDR cannot be traded on CASE and forfeit their beneficial rights.

The objective is to have all remaining physical securities immobilised, but this objective has not yet been achieved since some shareholders did not deposit their physical script when the company announced it would immobilise. Full immobilisation is unlikely to be completed for some time given the nature of the remaining stocks and the difficulty in providing documentation of ownership transfer from the original owners of the stocks. As a consequence, MCDR must hold onto the script until it holds all shares, at which time it will replace it with a Jumbo certificate. A Jumbo certificate is normally a certificate from the company that issued the securities with a list of the investors who purchased the securities. At this stage, MCDR continues to hold the original certificates even after an issue has been immobilised with a jumbo certificate, although there is no legal or regulatory reason to do so.

As mandated by Art 3. of the Executive Regulations of the Depository Law No. 93 of the year 2000 and its executive regulation, all newly issued securities have to be issued in book entry only form represented by a jumbo certificate held by MCDR.

### **Deposit and Withdrawal of securities**

Since the enactment of the Central Depository Law No. 93 of 2000 (specifically Art. 12), no physical certificates can be withdrawn, except under extraordinary circumstances stipulated by decree of the Chairman of the CMA. Should a security be withdrawn, it cannot be traded on the exchange and the owner will not be able to exercise their rights on the security.

MCDR still processes securities deposits on a daily basis. Certificates go through double verification processes in separate MCDR departments and are stamped for authenticity by the issuer, depositing custodian and finally MCDR. The deposit process usually takes one day. Deposited securities are retained in a temporary vault at MCDR's main site, and transferred in bulk to the main vault site outside of Cairo. Should securities certificates turn out to be forged, the original depositor is responsible to make MCDR whole in the event of a claim against them.

## ***Liquidity Risk - Key Indicators***

### **Settlement Models**

Model 2 between brokers: Gross settlement of securities followed by net settlement of cash.

Modified Model 1 between brokers and custodians: Gross settlement of securities and cash, not on a simultaneous basis.

### **Processing Periods**

--

**Overnight (by batch)**

Yes

**End of day**

No

**Batch daylight processing**

Yes

**Real-time and on-line**

No

**Other**

No

**Comments**

Batch daylight processing: FOP deliveries take place between 8.00am and 10.00pm

**Credit Facilities****Central bank money used to settle cash elements of trades**

Yes

**Credit facilities provided by the CSD**

No

**Credit facilities provided by commercial banks**

Yes

**Comments**

\*

**Stock Lending****Is stock lending permitted in the market**

Yes

**Are stock lending facilities provided by the CSD?**

Yes

**Are stock lending facilities provided by commercial banks/brokers?**

No

**Comments**

MCDR provides traditional securities lending and 'virtual' securities lending facilities.

**Transfer of Securities****Are securities deliveries achieved by book-entry?**

Yes

**Comments**

-

**Registration of Securities****Period of time required to register a holding?**

Immediate for positions held within MCDR, and within one day for physical securities being deposited to the system.

**Comments**

MCDR is the central registrar for the Egyptian market.

## Counterparty Risk

### Summary

The blocking of securities positions on trade execution mitigates against delivery failures, and all transactions executed before the default of the counterparty must be settled. Inter-broker (market-side) settlements are conducted on an inter-dependent DVP basis with payment in central bank funds. Broker-custodian (client-side) settlement is controlled by the custodian to ensure the custodian (and hence their local/foreign client) receives DVP, but the local broker does not. The length of the broker's risk exposure is typically short (~40mins), but is dependent on the processing efficiency of the custodian. Since, virtually all broker activity in the market is agency based (i.e. they are not taking proprietary positions), the degree of counterparty risk exposure that can be built up by a broker is marginal

Nevertheless, the Settlement Guarantee Fund (SGF) monitors the counterparty risk of brokers, and attempts to ensure that their open positions are covered sufficiently by their contributions to the Fund. Payments are protected by the CBE, and counterparty risk is dissipated by having multiple clearing banks (7). However, average credit ratings for Egyptian banks are around the BB+ mark. The CBE requires all local banks to hold a 14% reserve at the CBE. The SGF does not guarantee settlement between custodians and brokers, and there is currently no central counterparty in the market.

### Participant Counterparty Risk

Settlements between brokers are subject to an effective DVP arrangement with cash and securities being exchanged in a single operation, which minimises counterparty exposure between them. These settlements are also backed by the SGF.

The automatic pre-sale blocking of shares in the client's account via the MCDR system (electronically linked to the CASE trading system) is a mandatory procedure. The sale order is executed only if it complies with the contents of the blocking request(s). Counterparty Risk exposure is therefore lessened for sales, as brokers are immediately aware upon trade execution that the client has unencumbered stock available at the depository. However, these securities still have to be transferred from the client to the brokers account prior to 6pm SD-1 for the inter-broker settlement to be successfully concluded.

Broker cash settlements are via the CBE. MCDR settles securities against confirmation that the broker has sufficient funds with their settlement bank to settle their net debit obligations.

The nature of local broker activity in the market is almost exclusively agency based, and brokers do not generally trade on their own account. Hence, the counterparty risk exposure to a broker default is quite small, and is limited to the period within the settlement process when brokers are due to deliver to a counterparty broker. More problematic, would be a case where a foreign client has received overnight funding from a local broker, and the foreign client were to default before reimbursing the broker. In cases where the client is the defaulting party, they will be held liable for compensating the brokerage company with any resulting charges or penalties, as well as the penalties that are applied by the Securities Guarantee Fund (SGF) on the brokerage company as result of late settlement caused by the client due to shortage of funds or securities.

Risk of bank default is monitored by the CBE. CBE rules dictate that banks must maintain a 14% capital reserve in their CBE accounts at all times. Banks may utilise this reserve to clear their settlement obligations for the day. The CBE guarantees the settlement of payments within its system; hence although cleared funds within the FIN-copy interbank payment system are not received until the morning of SD+1, the extent of counterparty risk exposure between the banks is intermediated by the CBE. The S&P sovereign risk rating for Egypt is BB+.

Settlements between brokers and custodians take place outside of MCDR by the use of FOP deliveries (called 'Free Delivery Orders' (FDOs)) and separate payments. These settlements are not protected by MCDR's rules, regulations or the Settlement Guarantee Fund. Custodians limit broker Counterparty Risk to foreign investors by not releasing sold securities until payment has been received from the broker and not paying for bought securities until they have been delivered to their accounts in MCDR. Foreign investors could be held responsible if a delay occurs in delivery of sold securities.

### Risk Containment Model

It is mandatory for licensed brokers and MCDR participants (clearing members, mutual funds, pension funds, banks and any other entity that desires to become a direct clearing member) to contribute to the Settlement Guarantee Fund, through which MCDR guarantees settlement between brokers. This Fund does not guarantee the client side settlements between the custodian and the broker.

The requirement to block securities on the client's account at MCDR before the broker executes the transaction on CASE provides some protection.

### Delivery Versus Payment

Broker-broker settlement is on an interdependent near-simultaneous basis, while broker-custodian settlement is not on a centralised DVP basis. Custodians control this settlement process by not releasing client's securities or cash until receipt of the countervalue from the broker. Hence, custodians can argue that they receive DVP from the broker on behalf of their client,

but local brokers do not receive DVP and suffer counterparty risk exposure against the custodian deliveries.

Only one-third of settlement processing that MCDR conducts is on a DVP basis (i.e. the inter-broker leg) because of the settlement model employed. However, even for this inter-broker DVP process MCDR does not receive a cash settlement confirmation direct from the CBE, but via the clearing banks. The MCDR is able to confidently transfer securities prior to cash settlement confirmation, since the CBE guarantees all payments instructed through its systems.

### **Role of Central Counterparty (CCP)**

While MCDR provides a Settlement Guarantee Fund, it does not act as central counterparty to settlements.

### **Participant Criteria**

Membership is given to licensed custodians (bookkeepers), mutual funds, pension funds, clearing members and any other entity provided services by MCDR. Membership as at December 2007 consisted of 2 exchanges, 19 banks and 125 brokers.

While it is principally banks that serve the role of a custodian (bookkeeper), other entities can as well after fulfilling the CMA requirements. The Capital Market Authority (CMA) Decree 7, which introduced the licensing requirement for custodians (bookkeepers), prohibited local brokers from providing custodian activities from 13 January, 2002, but they can re-apply for the custodian license after fulfilling the CMA requirements.

Brokers must fulfill the CMA decree no. 14/2007 on capital adequacy requirements released in February 2007, which introduced a new calculation methodology for the minimum net liquid capital requirement, being a percentage of the company's liabilities and not a fixed amount of money. In this respect brokers should have net liquid capital above 10% of its total liabilities before operating in Egypt.

Each transaction counterparty i.e. brokers and local custodians, is required to maintain a cash account at one of the seven appointed cash settlement banks, Banque Misr, the National Bank of Egypt, Misr Iran Development Bank, Ahly United Bank, Biraeus Bank – Egypt, CIB Bank or Arab African International Bank. The CMA also sets fit and proper tests and requires technical qualifications and experience of the management.

Other participants in the settlement chain that are not direct members of MCDR are still regulated by CMA, which sets minimum capital standards according to the type and purpose of the company. The minimum capital required for banks is EGP 250 million (USD 44 million). As of July 2007, there were only three brokers that qualified to act as custodians.

### **Participant Concentration**

For 2007 (period up until 22 July), the percentage of transactions by value settled by the top 10% of participants was 62.28% (53.7% by volume).

For the same period, the largest participant was settling 10.52% by value (9% by volume). This does not appear to represent a significant concentration risk for the market.

### **Financial Compliance/Surveillance**

MCDR monitors participants' settlement positions and any fails against their contributions to the settlement guarantee fund. If required, additional contributions can be called as a result of this monitoring.

### **Guarantee Funds**

MCDR operates a Settlement Guarantee Fund (SGF) through a Settlement Guarantee Fund Committee, which is made up of representatives from: CMA (one representative), MCDR (two representatives), the stock exchanges (one representative), brokers (two representatives) and custodians (one representative) and headed by one of the two MCDR representatives.

SGF is an operating unit within MCDR. It was established to guarantee financial and securities settlement obligations of brokers and therefore it covers the failure of a broker participant to deliver securities on settlement date or the failure of a buying broker to deliver funds to cover securities purchased.

The Fund's capital is calculated quarterly as: the highest daily average during 3 months x maximum limit for settlement days x 35% risk factor. SGF monitors brokers' activity against the previous quarter, also compared to the average trading activity in the previous four quarters. As of April 2008, the value of the SGF was EGP 194 million (USD 36.34 million). The fund is invested in money market instruments, by law. MCDR is developing their own dealing room to invest the balances of SGF and the Investor Protection Fund (IPF).

Members' contributions are calculated as follows:

- Each participant's average purchase trading side over the last quarter multiplied by the risk factor of that participant.
- If the amount falls short of a broker's fails then additional contributions can be called.

Participants are assigned a risk factor of A (100%), B (125%), C (150%) or D (200%), based on their previous settlement performance. All participants are currently in either A or B categories (157 in A, 3 in B).

Loss sharing is part of the new depository and central registry Law No. 93 of 2000, but is not applied to SGF. If a defaulting participant's contribution was insufficient to cover their outstanding obligations, the reserves of SGF would be utilised.

However, loss-sharing is pertinent to the Investor Protection Fund (IPF). Each participant pays 2/10000 as a loss sharing provision of each trade for non-operational risk such as insolvency or bankruptcy and fraud and omissions. This is amalgamated into the IPF. The maximum pay-out from the IPF is EGP 100,000 (approximately USD 17,000) per ISIN. IPF's value at the end of 2006 was EGP 270 million (USD 47 million).

#### **Counterparty Risk - Key indicators**

<b>Capacity of CSD</b> Agent
<b>Surveillance of participants by CSD</b> Daily monitoring of brokers settlement positions against SGF contributions.
<b>Settlement assurance</b> Yes
<b>Participation criteria</b> Yes
<b>Minimum Capital (local currency)</b> Banks - EGP 250 million Brokers - EGP 10 million and availability of 10 branches.  For a broker to act as a custodian, their net paid in capital should not be less than EGP 10 million according to the CMA requirements.
<b>Size of Guarantee Fund - (Name, local currency, Euro and USD - (millions))</b> EGP 101 million (USD 17.76m)
<b>Does the CSD act as a central counterparty</b> No
<b>Comments</b> -

#### **Participant Concentration (Local Currency Millions)**

<b>Value of transactions in the market by top 10% of participants</b> 62.28% (to 22 July 2007)
<b>Volume of transactions by top 10% of participants</b> 53.7% (to 22 July 2007)
<b>Volume of largest individual participant</b> 9% by volume (to 22 July 2007) 10.52% by value (to 22 July 2007)

## Asset Servicing Risk

### Summary

Issuers are obliged by MCDR general terms and conditions to supply MCDR with all corporate actions information. The process for uploading information into MCDR's system and passing this to its participants requires manual intervention. MCDR accepts no responsibility for the accuracy, completeness and timeliness of this information, unless it is due to a transcription error on MCDR's part. Corporate action information processing is still reliant on manual procedures. MCDR does accept responsibility for missed corporate action deadlines where it has not received the necessary information from the issuer. MCDR has established a financial provision of 0.35% of total dividend coupons payable to guard against claims made against them as paying agent. MCDR does provide electronic proxy voting services, but this is not yet being widely used.

### Information processing

Article 33 of the Executive Regulations of Law 95/1992 requires that the issuer publish capital increase event information in two daily, domestic (Arabic) newspapers which are in wide circulation. Issuers are obliged to provide MCDR with all relevant corporate action information according to Rules 89 and 92 of their General Rules and Terms. This is usually in written (letter) form, but once the electronic signature project is completed, it is hoped that more information will be received in electronic form. Currently, therefore, the processing of corporate actions information requires significant manual intervention.

MCDR can distribute event information to the market upon issuer request. Corporate action information is sent by issuers via email, telephone and post. MCDR does not provide a corporate actions information service via SWIFT, but shareholders can receive cash entitlements via SWIFT. MCDR does not validate information as it is sourced directly from the issuer.

MCDR will inform participants of all corporate actions, mandatory and optional, via several mechanisms including its proprietary electronic system, email, fax, telephone and post on the day of receipt. In addition, the depository will issue confirmations of final entitlements for each corporate action event and provide the full prospectus for the event upon request.

MCDR does not accept any responsibility for the accuracy, completeness and timeliness of corporate actions notifications to its participants, although established internal procedures mandate same day turnaround of received notifications to participants. If MCDR discovers information relating to corporate events that has not been published by the issuer, MCDR contacts the issuer to seek formal notification. MCDR can also provide issuers with shareholder lists either in electronic form (via intranet) or on CD-ROM. No later than 15 days from the General Assembly meeting date, the CSD should receive a letter from the issuer that includes the decision of the shareholders for the proposed Corporate Action. If issuer notification is not received by this deadline, the issuer can be fined, though this requires CMA approval.

### Instruction processing

By law, MCDR is required to execute all corporate actions decided by the General Assembly for those securities registered within the depository. All securities listed on an Egyptian exchange or the object of a public offering must be deposited in the MCDR.

Article 4 of the Central Registry Law 93/2000 stipulates ownership of securities cannot be transferred prior to settlement, which implies that corporate entitlements are based on settled positions. However, historically the market practice adopted by MCDR has calculated entitlements based on trade date positions. MCDR has an entitlement tracking system that allows them to monitor trading activity across corporate action periods, and ensure that the correct beneficiary receives the entitlement. Hence, there are very few (if any) claims in the market.

All instructions are required to be routed through MCDR. The majority of instructions, by value of position, are amalgamated at broker and custodian level, and are submitted on CD-ROM. These instructions are automatically uploaded into MCDR's system, and can thence be executed without any further human intervention (provided the instructions are complete and correctly formatted). Instructions must be submitted at beneficial owner level, even where participants operate omnibus accounts. Instructions are submitted by retail participants via post or direct contact and can be cancelled prior to the deadline. These instructions must be typed, stamped and signed by the authorised person and be submitted on the company's letter headed paper. MCDR will follow up with clients where an instruction is incorrect or inaccurate. However, when an instruction has not been received close to the deadline, MCDR will not advise the participant. Claims are not automatically processed through to receipt of outstanding entitlements because MCDR keeps records of entitlements of beneficial owners and is considered as an irrevocable source by law, although, it will support claims if necessary.

By Art. 32 of the Executive regulations of Law 93/2000, entitlements must be funded in the MCDR's cash distribution account by the issuer at least 3 working days prior to pay date. However, if issuers are unable to fund the full value of the dividend 3 days prior to pay date, MCDR can arrange facilities enabling the issuer to pay in installments provided the full balance is paid prior to PD. On pay date, MCDR directly distributes cash dividends to beneficial owner accounts through one of the following services and upon the shareholder's instruction:

- Direct transfer of cash dividends to shareholders' bank accounts.
- Issue of nominal cheques for shareholders.
- Direct distribution of cash dividends to shareholders through the 47 eligible bank branches located throughout Egypt, where

shareholders can go to one of these branches to collect their cash dividends.

- Delivering cash dividends to shareholders through the home delivery service provided by MCDR in association with Citibank.

The peak corporate actions and dividends seasons are in April-May and November-December. Cash dividends must be distributed no later than one month from the General Assembly meeting date. Between 50% and 60% of payments are completed on Pay Date (PD), 5%-10% on PD+1, 5%-10% on PD+2, and 20%-40% on PD+3 or thereafter. 98% of EGP and 97% of USD denominated dividends are paid by direct bank transfer to the participant. Only 2% of EGP and 3% of USD denominated dividends are paid directly by cash at one of the 47 bank branches around the country. Where dividends are distributed through one of these bank branches, dividends are paid against an authorised payments list supplied by MCDR Head Office. All payments are handled by the bank staff, and payment orders generated by MCDR are reviewed against cash payment receipts from the banks on a daily basis.

Foreign investors have an opportunity to take advantage of the repatriation process applied in the Egyptian market and implemented by MCDR by which foreign investors can receive their dividends proceeds in their own currency and which can be deposited in their bank account at any bank throughout the world. MCDR recognises the difference between registered owners (direct participants) and beneficial owners, allowing entitlements to be directly distributed to the beneficial owners. Registered owners (normally custodian banks) must allow beneficial owners (their clients) to exercise all rights pertaining to their securities, and abide by their execution instructions.

MCDR accepts responsibility for any direct or consequential losses arising from missed corporate action deadlines where instructions have been received within published deadlines. The depository will confirm that participants' instructions have been executed within one day of receipt. Cash distributions are paid in same day funds on an actual rather than contractual income basis.

### **Proxy Voting**

MCDR has designed an electronic proxy voting system that is used on a best-efforts basis. MCDR will receive a formal request from the issuer stating his interest to carry out the voting processes for his general assembly meeting throughout MCDR. MCDR will prepare a shareholders' list on the designated date, and the list will be posted to the e-voting system on MCDR's website. The investor will login to the site and vote on the different subjects of the meeting, review them and confirm their decisions. MCDR will review the votes that have been submitted on a daily basis, and provide the issuer with all the statistics related to the voting process. On the agreed date, MCDR will deliver the vote results to the issuer.

MCDR will also provide full prospectuses upon request. If requested by the issuer, MCDR will provide investors with information relating to general meetings. Proxy voting is generally performed directly between the investor or their custodian and the issuer. MCDR is required to attend general meetings by law and from the meetings is provided with a copy of the minutes containing all decisions taken at the meeting. These documents are scanned into MCDR's system and are also retained in physical form for a period of 15 years (as required by law).

Securities positions are frozen no later than 3 days prior to the meeting and are free by the end of the meeting day. This is only applied to shareholders who want to attend the meeting.

### **Other services**

MCDR offers standing instructions to pay away income received from corporate actions and supplies company annual reports on request by participants. In addition, the depository credits corporate actions related to cash or stock entitlements on due date in the event that stock is out on loan on record or ex-date. MCDR does provide additional corporate action services such as stock split, capital restructure, mergers and acquisitions, stock swap, bond redemptions but does not provide tax reclaim services.

### **Payment Repatriations**

Sale proceeds and dividend income may be repatriated through the MCDR automatic repatriation mechanism. The CBE normally allocates sufficient foreign currency to this mechanism, despite limited availability of foreign currency in the market.

Although the MCDR currently does not have a specific regulation in place that would establish a particular time limit for repatriation requests through the MCDR automatic repatriation mechanism, the MCDR may refuse to process a repatriation request if it deems that excessive time has elapsed since the receipt of sale proceeds or dividend income. In practice, the time limit for repatriations appears to be 10 days from the transaction settlement date. Delayed repatriation requests refused by the MCDR must be processed directly through the CBE. This will result in significant delays in obtaining foreign currency, as the CBE is currently not making foreign currency available for repatriations outside of the MCDR repatriation mechanism.

## **Asset Servicing Risk - Key indicators**

### **Information processing**

<b>Securities covered</b> Equities, and corporate and government debt.
<b>Information sources used</b> Issuers
<b>Information provided in English</b> Yes

**Number of Events during last full year**

<b>Dividends</b> 463 in 2006 (402 cash, 61 stock)
<b>Interest &amp; Redemptions</b> 131 (101 bond yield distributions and 30 redemptions) in 2006
<b>Corporate actions</b> 52 (30 splits, 5 stock interchanges, 7 stock delistings and 10 capital reductions) in 2006
<b>Notification via</b> Proprietary electronic, SWIFT, email, fax, telephone and post.
<b>SWIFT message types</b> Yes
<b>Notification within</b> Same day
<b>Information processing comments</b> -

**Instruction processing**

<b>Use of depository</b> Yes
<b>Settlement on due date</b> Yes
<b>Optional corporate actions supported</b> Yes
<b>Cash account credited</b> Yes
<b>Central paying agent</b> Yes
<b>Entitlements based on</b> Calculated on traded positions, tracked, and then paid on settled positions
<b>Instruction processing comments</b> No rights or optional dividends have yet been issued in the market

**Proxy voting services**

<b>On-line</b> Yes
<b>Outsourced</b> No
<b>Announcement of meetings</b> -
<b>Elections (Voting)</b> No
<b>Results reporting</b> Yes
<b>Proxy voting services comments</b> MCDR service is available but not widely used. Meetings can be announced at the request of the issuer.

## Financial Risk

### Summary

MCDR is well capitalised for an emerging market depository, and doubled its issued capital in 2007 in preparation for an extended substantial investment in various service developments and commercial ventures. MCDR profitability has increased since the restructuring of the company in late 2005. Although the depository operates a not-for-profit model, it has always been operationally profitable.

MCDR has insurance policies in place covering theft, fire, vaults, computer hardware, systemic and operational risk.. Legal claims against the depository are outstanding, but only as co-defendant with other capital market entities (e.g. CMA, CASE), and MCDR has made provision against the possibility of such claims in its balance sheet. MCDR is obliged by law to pay direct and consequential losses where it is at fault.

### Financial and other Resources

#### Capital Structure

According to the Depository & Registry law no 93 for year 2000, ownership of each participant or related group cannot exceed 5%. The ownership composition is as follows; Cairo & Alexandria Stock Exchanges 5%, Banks 50% and Brokerage firms 45%. The Egyptian government has a minor influence in virtue of its ownership of the stock exchanges. Under the Central Depository Law No 93 of 2000 only local Egyptian licensed members can be shareholders, not foreigners. Any group of companies that have a cross ownership in excess of 20% shall be eligible for the group ownership limitation. Where cross ownership is less than 20%, each participant will be regarded as an individual shareholder. Participants of MCDR can be shareholders.

As of 31 December 2006, MCDR's net capital and reserves were EGP 105.5 million (USD 18.4 million), excluding SGF contributions and income (EGP 244.1 million (USD 42.5 million) including SGF). This figure is for the 16 months from August 2005 when the company was restructured to bring the operations of the registry and the SGF under central accounting under MCDR (previously being MCSD). Net capital as MCSD in August 2005 was EGP 25.0 million (USD 4.3 million).

In 2006, the Board of Directors increased the issued capital of the company from EGP 20 million to EGP 40 million, and the authorised capital to EGP 100 million. This was an initial stage towards substantially increasing the capital of the company in 2007, when MCDR's General Assembly approved an increase in issued capital to EGP 80 million (financed out of retained earnings) and in authorised capital to EGP 250 million.

Under international accounting standards, the operations of the depository, central registry and Settlement Guarantee Fund are separately accounted and then consolidated into the overall accounts of MCDR. As such, the consolidated accounts report SGF contributions and special accumulated fund (investment income) as part of MCDR's shareholders equity, but it should be noted that SGF contributions or income would not be considered part of MCDR's estate if it were to become insolvent.

#### Earnings Performance

Although MCDR is a not-for profit entity, it has been consistently profitable in recent years. The net profit for the year 2007 (12 month period) was EGP 99.84 million. The period ending 31 December 2006 saw a surge in the company's revenue and profitability. MCDR had profit for this period (16 months) of EGP 99,840,020 on net income EGP 137,013,593. Profit for the previous period (8 months ended 30 August 2005) was EGP 4,915,102 on net revenue of EGP 32,961,105. MCDR also had modest profit levels for the prior 3 financial years (2002-2004). Income derived from interest earned on the float for dividends payments (funded 3 days in advance) accounted for approximately 37% of net revenue and 50% of the company's profit for the 16 months ended 31 December, 2006.

The dramatic increase in revenue and profit was attributable to an amalgamation of reporting for the clearing and depository, registry and the Settlement Guarantee Fund (SGF), as well as an overall increase in business volume.

MCDR is carrying out a full review of departmental costs and revenues. MCDR currently operates a number of services for participants free of charge (e.g. income distribution, pledge operations). Any changes in pricing must be approved by the MCDR Board, the CMA and the Minister of Investment.

#### Guarantee Funds (Central Counterparty Funds Only)

There is no central counterparty in the Egyptian market, although there are early plans to develop one within the next 2-3 years. MCDR is one of the entities that have shown an interest in taking on the role.

See Counterparty Risk for a discussion of the Settlement Guarantee Fund.

#### Access to Credit

MCDR can call on additional capital from its owners and is permitted to borrow money. However, MCDR currently has no debt,

and has no committed credit lines in place.

### **Insurance**

MCDR has recently increased its coverage to approximately EGP 38 million for theft, fire, vaults, computer hardware, systemic and operational risk taken out with the Egyptian Saudi Insurance House. MCDR does not carry any Professional Indemnity (PI) coverage against errors, omissions or negligence, nor does it have a Bankers Blanket Bond (BBB) to cover the depository against any criminal acts or malfeasance which may trigger losses and compensation claims from participants. Participants may submit a claim to the Investor Protection Fund (IPF) in such an event. For details of the IPF and the limits on claims from the fund, please refer to the Guarantee Fund section.

### **Potential Claims on Financial Resources**

#### **Credit Loss**

Since MCDR does not extend credit to its participants, act as central counterparty or act as principal to loan transactions, it is not subject to any potential credit risk. However, the commitment of MCDR to act as principal for stock loans in the future may introduce potential risks against the depository in the event a borrower defaults on the loan if not managed properly. MCDR has mechanisms planned to protect itself against this risk, namely 125% cash collateral on stock loans and daily mark-to-market.

#### **Central Counterparty Exposure**

MCDR does not act as central counterparty to securities transactions.

#### **Liability for Operational Losses**

MCDR is bound by Art. 48 of Law 93 of 2000 to be liable for losses incurred by users of its services including direct and indirect losses. Under the same Article, any damage not covered by insurance, would be borne by MCDR's shareholders. Civil Law obligates MCDR to compensate any claims against them for direct, indirect losses and emotional stress. MCDR has made a provision of 2% of its clearing and settlement revenue to cover such risk exposures directly related to clearing and settlement risks (contributed to the IPF), and an overall EGP 38 million (USD 6.8 million) against claims. Additionally, it has set aside a provision of 0.35% of the value of the total dividends payable through its dividends service to cover against any losses it causes the entitled beneficiaries through late or incorrect payment. MCDR is involved in 53 current claims against it, though it must be noted that these claims are generally aimed against all capital market infrastructure participants as joint defendants and no cases have been directed towards MCDR individually. No successful claims have been made since EGP 26 million (USD 4.5 million) was returned to two brokers in 2004 after they questioned the legal basis for the fining regime.

Under Art.48 of Law 93, 'Any damage arising from the liability of the company shall be borne by all shareholding Central Depository Members in accordance with the loss-sharing rules, unless the damage is covered by insurance'. However, this shareholder liability does not appear to extend to business losses under normal operating conditions under this piece of legislation.

#### **Investment in Infrastructure**

MCDR continues to make substantial investments in its infrastructure. Major infrastructure initiatives currently underway include; the development of a secondary site approximately 80 kms from Cairo (with an estimated budget of EGP 100 million spread over the next 3 years), the creation of a new (interim) DRP site, the creation of two new branches within Cairo, Nile Information Technology (MCDR has 60% ownership translating to an investment of EGP 9 million) which will provide the local market with Service Bureau support to Participants for back and middle office activities, the development of a satellite TV channel for financial issues (MCDR contribution of USD 800,000 to the channels overall capital of USD 12 million), as well as a new securities lending system.

Both NIT and the new satellite TV channel will be limited liability companies, although since MCDR will hold 60% of NIT capital, there could conceivably be a call for capital from MCDR if NIT were to run into financial difficulties. The new site to be developed outside of Cairo (the 'Country Club') will have a new underground DRP facility and new vaults, although these will be substantially smaller than the present ones. MCDR will provide vault/storage services to its broker participants.

### **Financial Risk - Key indicators**

<b>Ownership of the CSD</b>			
	<b>Number - Domestic</b>	<b>Number - Foreign</b>	<b>Total Percentage</b>
<b>Central Bank</b>	0	0	0
<b>Stock Exchange</b>	2	0	5
<b>Participant banks</b>	18	0	50
<b>Broker/dealers</b>	126	0	45
<b>Mutual funds</b>	0	0	0

Private clients	0	0	0
Others	0	0	0
-	-	-	-
-	-	-	-
-	-	-	-

#### Comments

All participants are shareholders and only shareholders can be participants.

#### Statistics

	Capital structure Local Currency
Issued capital	40
Surplus	0
Reserves	19.8
Retained earnings	45.7
Total	105.5

#### Comments

Statistics (in EGP million) as at December 2006, excluding SGF contributions and income.

As of July 2007, the issued and paid-in capital of MCDR is EGP 80 million and the authorised capital of MCDR is EGP 250 million. It has been approved to raise the paid-in capital to EGP 140 million by June 2008.

#### Lines of stock

	2003	2004	2005	2006	2007
Lines of stock	1,008	1100	1120	1144	1195
% Stock Exchange transactions cleared and settled through CSD	99	99	100	100	100
Total value of securities under custody	-	EGP 291bn	EGP 550bn	EGP 697 bn	EGP 924 bn

#### Comments

Lines of stock in 2006 consisted of 1,108 equities, 17 corporate debt, and 19 government debt issues.

Total value of securities under custody is as at 31 December of that year.

It is worth mentioning that MCDR holds more securities in custody both in value and volume than are traded at CASE, because not all securities held in the depository are listed at CASE. The value of securities under custody for 2005 onwards reflects those kept by MCDR.

#### Equities

	2003	2004	2005	2006	2007
Market Value	196 bn	262.5 bn	498 bn	543 bn	832 bn
% of issued securities in the CSD	-	-	-	84%	-
% of market capitalisation in the CSD	-	-	-	85.5%	-

#### Comments

Values of securities are in EGP.

2006 figure as at year-end for EGP denominated shares.

NB. % of market capitalisation in the CSD figure as at 22 July 2007 was 96.4%

% of USD-denominated shares in MCDR at the end of 2006 was 94.5% (94.6% at 22/7/07)

#### Fixed Income

	2003	2004	2005	2006	2007
Market Value	18 bn	28.5 bn	52 bn	64.5 bn	71 bn
% of issued securities in					

<b>the CSD</b>	-	-	-	-	-
<b>% of market capitalisation in the CSD</b>	-	-	-	92%	-

**Comments**

Values of securities are in EGP.

2006 figure is as at year-end for EGP denominated bonds.

NB. % of market capitalisation in the CSD figure as at 22 July 2007 was 92%

% of USD denominated bonds in MCDR at the end of 2006 was 100% (100% at 22/7/07)

**Money Markets**

	2003	2004	2005	2006	2007
<b>Market Value</b>	N/A	N/A	N/A	N/A	N/A
<b>% of issued securities in the CSD</b>	N/A	N/A	N/A	N/A	N/A
<b>% of market capitalisation in the CSD</b>	N/A	N/A	N/A	N/A	N/A

**Comments**

Treasury Bills are cleared and settled by the Central Bank of Egypt (CBE).

**Expenses**

	2003	2004	2005	2006	2007
<b>Expenses as % total operating revenue</b>	93%	85%	85%	34%	-

**Comments**

2006 figure is as at 31 December 2006.

NB. 2006 figures are the first set of accounts to include all of depository, registry and Settlement Guarantee Fund operations.

## Operational Risk

### Summary

MCDR operates a strong internal control culture designed to minimise operational risk exposures. However, the internal audit department has only recently become sufficiently resourced to operationally audit all critical departments on an annual basis. There is no external operational audit conducted.

MCDR management has supplied signed Internal Control representations to Thomas Murray attesting to the sufficiency of internal controls and procedures. For the introduction of new systems and services, all controls and audits are subject to revision by the internal audit committee, which consists of members of the MCDR Board, the internal audit department manager and a representative from MCDR's external (financial) auditors.

Although, a vast proportion of certificates are immobilised, individual certificates are still held, even in issues that are 100% immobilised. MCDR has developed a range of proprietary systems for communication and processing, but until ISO15022 messaging standards and electronic signatures are built into the system, full automation and Straight-through-Processing potential will not be realised.

DRP arrangements exist that involve a recovery period of 5 hours, to the back-up site system. A disaster recovery test on the CASE link is conducted quarterly, but the plan is not regularly tested in a live environment with the participants. Business Continuity facilities are currently being renovated, and operational risk exposures would be significant were MCDR's main site be rendered inaccessible before the back-up site is finished.

### Depository controls

The MCDR internal audit department checks all the operational, financial and administrative procedures related to the depository, but there is currently no operational audit undertaken by an external auditor. MCDR maintains comprehensive procedure manuals for each activity; most of these are available on-line to employees. MCDR's Internal Audit (IA) Manual was developed by their external auditors (BDO Khaled & Co) Management Consultancy Department. There are 8 auditors in the MCDR IA department, although prior to 2007 there were only 3. Internal Audit began a full operational audit of all critical (15) departments in July 2005. By September 2007, they had completed audits on 11 departments with 2 more in progress and 2 pending.

### Safekeeping

Around 96% of EGP denominated equities and 92% of EGP denominated bonds by volume are now held in immobilised form at MCDR. MCDR continues to receive certificates on a daily basis for deposit. All deposit operations are conducted under dual control. After being counted and verified through two different departments, the certificates are held in temporary vaults at MCDR's main site, before being transferred to the main vault outside of Cairo on a weekly basis.

708 of the 1202 issues held in MCDR are 100% immobilised. Immobilisation of the final physical certificates continues, but is unlikely to be 100% completed for some time given the nature of the remaining stocks and the difficulty in providing documentation of ownership transfer from the original owners of the stocks. MCDR continues to retain physical certificates of issues up to and after 100% immobilisation in case there are any challenges against original ownership and transfer of individual certificates. However, individual certificates are without value since the MCDR's book-entry register legally constitutes evidence of title. Physical certificates effectively represent a residual record of securities already registered, hence physical security and operational controls surrounding their safekeeping are deemed to be of less importance. However, physical security measures in the vault are in place, such as TV surveillance, dual control, and terminal passwords. Cheques and other valuables are safeguarded.

All documentation relating to pledge operations are also physically safekept indefinitely in a separate area of the vault. Art. 42 of the Executive Regulations of Law 93 stipulates the appropriate documentation required for pledge operations, although it does not specify that these documents must be in paper form. However, since many of these documents need to be accompanied by authorised signatures, physical pledge documentation cannot be replaced by electronic processing until MCDR's electronic signature project is completed and appropriate systems have been developed.

MCDR holds over 14 million individual certificates in its main vault, relating to around 1200 issues. An annual audit of a random selection of issues is conducted by internal audit staff with no losses or discrepancies recorded in the last audit.

### Internal Security

Physical security includes the use of cameras throughout the building and access to restricted areas is via swipe card and thumb print validation. Cameras are only able to be located in corridors and are not allowed in offices by Egyptian law.

Service desks are maintained by MCDR for the large number of direct retail participants in the system. Retail participants

commonly do not subscribe to MCDR's internet services, and can utilise the service desks to receive all services. Every participant's identity is checked upon entry into the service office (which is in MCDR's main building) and messengers for brokers, custodians and other institutional participants must be authorised and carry authorised ID. The two new branches being developed in West and East Cairo will further support this type of retail client services.

#### Staff training

There are internal and external trainings for MCDR staff, the external being provided by the American Chamber in Cairo.

#### Interfaces

MCDR uses FIX interface with CASE. There is also a web interface that is used interactively between MCDR and Arab brokers within the triple agreement among Egypt, Kuwait and Lebanon. SWIFT interface is used for payments and securities settlement with the Central Bank individual and corporate bank transfers, cash coupons transfers and in securities in GDRs.

#### Clearing controls

The automatic pre-sale blocking of shares in the MCDR system (electronically linked to the CASE trading system) replaced the previous manual blocking process on 3rd March 2005. Acknowledged blocked requests are reflected on the executing local broker's trading terminal at the CASE, as available for sale. Upon delivery to the broker on SD-1, the investor's custodian logs onto their MCDR terminal and generates a Free Delivery Order (FDO) to the broker's account. The transition from the manual to automated process improved Straight-Through-Processing (STP) between CASE, their members and MCDR.

Matched locked-in trade details are received from the CASE at the end of each day's trading session and, once uploaded into MCDR's system, automatically generates settlement instructions between the brokers. This introduces some human intervention into the clearing process. Additionally, the actual settlement batch must be triggered by an MCDR settlement operator, once all pre-settlement checks have been completed.

For cash settlement of MCDR processed DVP transactions, MCDR does not maintain a cash account at the CBE. Once the CBE receives a MT202 (General Financial Institution Transfer) from MCDR to debit or credit the clearing banks' account, CBE creates a MT 202 to credit the bank account and MT 204 (Direct Debit) to debit the other bank's account. MT202s from MCDR have to be manually generated in their system under dual-control conditions. CBE's SWIFT messaging is similarly manually generated. This manual generation of messages creates an area of operational risk exposure that must be mitigated through internal controls and procedures at MCDR and CBE.

#### Reconciliations

MCDR reconciles the total balance of each issue on a monthly basis. Ledger reconciliation on movements is conducted daily. Participants can download portfolio records from MCDR's systems to their own systems by diskette. Some custodians have developed their own auto-reconciliation systems, while others still reconcile manually. The new MCDR subsidiary, Nile Information Technology (NIT) will be developing back-office systems for participants to improve this situation.

#### Data processing controls

The internal audit department is responsible for revising all procedures concerned with data processing. All system access is segregated by operator roles, hence MCDR staff can only access those parts of the system required for their jobs. System logs for all access is maintained and reviewed periodically by internal auditors. Participants externally accessing the system have designated usernames and passwords, and the system locks-out operators after 3 unsuccessful log-in attempts. Participants are linked to MCDR via dedicated lines. MCDR has no direct link with CBE; communication goes through the SWIFT network.

Firewalls are maintained on all MCDR internet and intranet networks. CISCO Intrusion Protection Systems (IPS) are currently being tested on MCDR servers and there are plans to install these on all parts of the MCDR networks in the future.

At present, there is no automated link between brokers' and custodians' internal systems with the MCDR system. This negates the ability for participants to achieve Straight-Through-Processing for settlement and asset servicing. As of 1Q08, MCDR is facilitating the joining of brokers to the SWIFT network, activating the use of SWIFT category 5 and ISO 15022 messages. Upon completion of the project, brokers will be able to use SWIFT messages for transfer of securities, which is expected to improve the quality of data transmitted and Straight Through Processing (STP).

There appears to be a significant degree of manual intervention in the corporate actions services provided by MCDR. Since most information about standard mandatory and voluntary corporate events is received from issuers in manual form, information has to be re-keyed into MCDR systems (though this is double entered for dual-control/verification purposes).

MCDR has the potential to settle up to 500,000 transactions per one settlement session and within the same time period. The average daily transactions is 80,000 and in IPOs, the maximum number was 267,000.

## **Disaster Recovery/Business Continuity Procedures**

### Disaster Recovery Arrangements

MCDR has extensive disaster recovery arrangements in place.

- All components of MCDR's computer system are redundant except the development server, which sometimes needs to switch to the disaster recovery site.
- MCDR has comprehensive contingency plans in place. There is a contingency plan in place for failed systems and utilities, and it is tested daily. In addition, the MCDR maintains an off-site back-up for all critical systems. Data is sent to the back-up server at the Talaat Harb branch of the MCDR with a one hour delay. Additionally, a backup on tapes is conducted every day and restored to the disaster recovery site servers. They are also saved in an external safe on a daily basis.
- High-speed fibre optic lines are being completed between the main site at El Gomhoria and Talaat Harb. However, since Talaat Harb is only around 2km away from the main MCDR site at El Gomhoria, this is recognised as not being the optimal solution and longer term plans are to establish the disaster recovery site at the new 'Country Club' facility to be built outside of Cairo.
- A back-up power generator and uninterruptible power supply (UPS) are also maintained at the main site and Talaat Harb which are tested once a week. The UPS can be used for up to 25 minutes. The generator can be used up to 2 days using fuel from the installed small tank. Another larger tank is available that can be used for up to 11 Days.
- In the event of a need to switch to the back-up server, this can be undertaken immediately if there is a problem. The time taken to switch to the backup system at the disaster recovery site is around 5 hours. If the main site systems are interrupted, but not critically damaged, main server processing can be recovered within 1 hour.
- A disaster recovery test on the CASE link is conducted quarterly. The last full disaster recovery plan test was conducted in June 2004, but no 'live tests' with all market participants have been conducted. There are four dedicated communication lines provided by two separate communication providers linking CASE with MCDR.

Also note that fire suppression systems (powder) are installed in the main vault and in the server rooms at the main and back-up sites, and fire extinguishers are widely provided at the main offices.

### Business Continuity

Business Continuity Procedures are in place and the Talaat Harb office would be used as a secondary operations centre if required. However, the facilities at Talaat Harb have not been fully operational since April 2007 while the fibre optic connection with the main site has been installed and the offices and facilities at Talaat Harb have been upgraded. The Talaat Harb site should be fully operational before the end of 2007. Presently, MCDR would be reliant on its staff in the Alexandria branch to carry on operations in the event the main site became inaccessible. However, there does not appear to be a fully scoped plan detailing how the 44 staff in Alexandria would manage the entire operations of MCDR in the event of a disaster.

### Depository Liability

MCDR is bound by Art. 48 of Law 93 of 2000 to be liable for losses incurred by users of its services including direct and indirect losses. Under the same Article, any damage not covered by insurance, would be borne by MCDR's shareholders. Civil Law obligates MCDR to compensate any claims against them for direct losses, indirect losses and emotional stress. MCDR has made a provision of 2% of its clearing and settlement revenue to cover such risk exposures directly related to clearing and settlement risks, and an overall EGP 38 million (USD 6.8 million) against claims. Additionally, it has set aside a provision of 0.35% of the value of the total dividends payable through its dividends service to cover against any losses it causes the entitled beneficiaries through late or incorrect payment.

MCDR is involved in 53 current claims against it, though it must be noted that these claims are generally aimed against all capital market infrastructure participants as joint defendants and no cases have been directed towards MCDR individually. No successful claims have been made since EGP 26 million (USD 4.5 million) was returned to two brokers in 2004 after they questioned the legal basis for the fining regime.

Under Art.48 of Law 93, 'Any damage arising from the liability of the company shall be borne by all shareholding Central Depository Members in accordance with the loss-sharing rules, unless the damage is covered by insurance'. However, this shareholder liability does not appear to extend to business losses under normal operating conditions under this legislation.

### Systems Performance

There has been no outages of vital systems within the last 3 years. The system has never failed to operate for more than a few hours, with no repercussions on the market. The systems were unavailable for 2 hours after the CASE session end due to a power outage in June 2007. After UPS finished operating, the Power Generator failed to start.

Server storage is currently running at 30-40% capacity, processing power and memory consumption at about 18%, and 30% of Network resources are utilised. All capacity measurements are collected periodically and compared with future requirement trends to investigate whether any upgrades are needed.

**Operational Risk - Key indicators**

**Control objectives identified by the CSD match standard objectives**

Yes

**Key controls and procedures are identified by the CSD**

Yes

**Independent evidence exists that key controls and procedures have operated effectively through the last year**

Yes

**Material errors have been identified**

No

**Comments**

-

## CSD on CSD (Credit) Risk

### Summary

MCDR has a co-operative agreement with depositories in Abu Dhabi and Kuwait and with Midclear in Lebanon, but no settlement links have been built. MCDR has recently established a link with Clearstream ICSD. A link with Euroclear Bank is in progress.

### CSD - CSD Links

The stock exchanges and MCDR maintain close relationships with other exchanges in the Middle East and North Africa region. MCDR has a co-operative agreement with the depository and clearing houses in Kuwait and Lebanon.

MCDR opened an account with Clearstream ICSD in January 2008, for Egyptian investors abroad and Clearstream clients for settling Egyptian GDRs and ADRs. Eligible securities include equities and fixed income instruments.

### Processing Cycles

N/A

### *CSD on CSD (Credit Risk) - Key indicators*

#### **International Links: List of international links established and/or planned by the CSD**

None – no cross-border settlement links have yet been established.

#### **European Central Bank logo**



#### **ECB Monetary Operations**

-

## Governance and Regulation

### Management and governance of the depository

MCDR was established under the Capital Markets Law No. 95 of 1992. The CSD was launched in October 1996, and performs its depository and clearing activities under the Depository and Central Registry Law No. 93 of 2000.

The MCDR Board can be up to 11 members. In 2007, the Board consisted of 9 members including the Chairman & Managing Director and Deputy Chairman and Managing Director of MCDR. The other 7 members were from the CASE, banks and brokerage companies in Egypt. The MCDR general assembly votes for 6 board members (3 from banks, 3 from financial institutions) and the CASE appoints the other board member. Board members are elected for a 3 year term, and can be re-elected any number of times. All Board members have equal voting rights, although the Chairman also holds a casting vote in the event of any tied decision.

Decision-making is heavily centralised at the senior management level. MCDR has a specific Audit Committee and a Risk Management Committee who report directly to the Board of Directors.

### Regulatory and independent examination of the depository

MCDR is regulated by the CMA which also regulates the stock exchange and securities intermediaries. The CMA was established in December 1979 and reports to the Ministry of Investment. The CMA has wide powers over MCDR in terms of the services it provides, participation in MCDR and the fees it charges. It can also seek an audit of MCDR. MCDR meets with CMA on a regular basis - at least 4 times a year.

According to Law 93 of 2000 Art. 65 of the executive regulation, MCDR must provide CMA with the following;

- Daily report of settled trades
- Monthly report of the SGF activity
- Quarterly report of registered securities
- Quarterly report of deposited securities
- Quarterly report of cash coupons of deposited securities

The CMA's Investigations Department conducts an annual inspection of MCDR's financial reports, reports of daily transactions, the borrower/lending system, the depository, delisting, and registry functions. Over and above this, IT software applications require prior approval from CMA.

MCDR has appointed a firm of external auditors, BDO Khaled & co. (a member of BDO International) and the United Accountants Company who audit the accounts of MCDR and the Settlement Guarantee Fund (SGF) on a quarterly basis (from 2007). There is no external audit of operational controls. Previously, when the CASE had a significant shareholding in MCDR, MCDR operational controls were subject to an external government audit.

### Internal controls and procedures for safeguarding investments

Each participant is required to reconcile their beneficial-owner records to their omnibus position at MCDR, on a weekly basis.

MCDR has an internal audit department of around 7 staff that report to the Managing Director and to the Audit Committee of the Board of Directors. It meets with the Audit Committee twice a year. The internal audit is responsible for auditing the financial controls and also the operational controls, although this does not include auditing the IT systems. Internal audit does become involved with reviewing the controls from the initial stages of a development project.

### Other legal protection mechanisms

The Law 93 introduced the legal foundation for the nominee concept allowing custodian banks, depository banks, asset managers and any other activity issued by a ministerial decree after consulting the CMA to apply for a license to become a nominee through the CMA. However, the concept has not been fully implemented and may be hindered by the requirement that the registered owners of securities disclose the names of the beneficial owners.

<b>About the Depository</b>	<b>Segregation of Assets at the Depository</b>
<b>Name and Address</b> Misr Company for Central Clearing, Depository & Registry 70 El-Gomhoria St Cairo Egypt	<b>Depository assets from participants</b> Yes
<b>Website</b>	<b>Participant assets from clients</b> Yes
	<b>Eligible Securities Depository under SEC Rule 17f-7</b>

www.mcdr.com.eg

**Date of establishment**  
1992

**Date commenced operations**  
October 1996

**Legal status**  
Incorporated under the Depository and Central Registry Law No 93 of 2000.

**Type of legal entity**  
Not for-profit private company

**Regulated by**  
The Capital Market Authority

**Is use of the CSD required?**

	Settlement	Safekeeping
<b>By Law</b>	Yes	Yes
<b>By Market Practice</b>	Yes	Yes

**How securities are held**  
Almost all securities are in registered form immobilised or dematerialised at the depository (global certificate).

**Domestic eligible participants**  
As at 31 December 2006, MCDR has 1344 participants, broken down to:

- 1144 issuers (85%)
- 133 brokers (10%)
- 29 custodians (2%)
- 24 direct settlement participants (2%)
- 14 primary dealers (1%)

CASE is also a participant

**Foreign eligible participants**  
HSBC and Citibank

**Ownership**  
Domestic banks 50%, stock exchanges 5%, domestic brokers 45%.

**System of central handling of securities**

Yes

**Regulated by a financial regulatory authority**

Yes

**Holds assets of all participants on equivalent terms**

Yes

**Identifies and segregates participant assets**

Yes

**Periodic reports to participants**

Yes

**Periodic examination by a regulator or independent accountant**

Yes

**Comments**

-

**Internal Safety Measures****Services Provided**

<b>Participant Eligibility Criteria</b>	<b>Matching</b>
<b>Minimum Capital Standards</b> Yes	<b>Pre-matching services</b> No
<b>Comments</b> -	<b>Matching services</b> No
<b>Financial Aspects</b>	<b>Comments</b> -
<b>Ability to raise capital/borrow</b> Yes	<b>Clearing</b>
<b>Committed lines of credit in place</b> No	<b>Clearing services</b> Yes
<b>Publish audit financials</b> Yes	<b>Comments</b> Clearing on cash only
<b>Take lien on stock held</b> No	<b>Securities Settlement</b>
<b>Central Bank Guarantee</b> No	<b>Book-entry settlement</b> Yes
<b>Other third party guarantee</b> No	<b>Fails management</b> Yes
<b>Third party insurance</b> Yes	<b>Comments</b> -
<b>Comments</b> MCDR has no financial guarantee backing its business operations. The CBE guarantees all cash settlements. The IPF covers the clearing and settlement operations defaults.	<b>Cash Settlement</b>
<b>Safeguard Facilities</b>	<b>Internal cash settlement</b> No
<b>Offsite Backup</b> Yes	<b>Comments</b> -
<b>Comments</b> -	<b>Stock Lending</b>
<b>Disaster Recovery</b>	<b>Securities lending for fails coverage</b> Yes
<b>Disaster Recovery Plan</b> Yes	<b>Comments</b> -
<b>Back-up power generator</b> Yes	<b>Asset Servicing</b>
<b>UPS (Uninterruptible power supply)</b> Yes	<b>Notifications</b> Yes
<b>Comments</b> -	<b>Securities processing</b> Yes
	<b>Paying agent</b> Yes
	<b>Central registrar</b> Yes
	<b>Proxy voting services</b> Yes
	<b>Comments</b> Electronic voting services available but not used
	<b>Communications</b>
	<b>Electronic communications</b> Yes
	<b>Comments</b> -
	<b>Reporting Services</b>
	<b>Electronic reporting</b> Yes

**Reporting of every movement**

Yes

**Regular statement of securities deposited**

Yes

**Comments**

-

## Definition

-

### Publication Date

The publication date represented here is October 2007. This is the date that the assessment report has been reviewed by third parties including the CSD. The report is updated on an on-going basis throughout the year as new information is received and should be read in conjunction with the relevant newflashes issued since the publication date.

### RISK EXPOSURE DEFINITIONS

**Asset Commitment Risk - The period of time from when control of securities or cash is given up until receipt of countervalue.** This risk concerns the time period during which a participant's assets, either cash or stock, are frozen within the CSD and payment system pending final settlement of the underlying transaction(s). Following settlement, the risk period is extended until the transfer of funds and stock becomes irrevocable. It excludes any periods when assets, cash or stock, are committed to a market participant including brokers, banks and custodians, not caused by CSD processing.

**Liquidity Risk - The risk that insufficient securities and or funds are available to meet commitments; the obligation will be covered some time later.** This is where for certain technical reasons (e.g., stock out on loan, stock in course of registration, turn round of recently deposited stock is not possible) one or both parties to the trade has a shortfall in the amount of funds (credit line) or unencumbered stock available to meet settlement obligations when due. These shortfalls may lead to settlement 'fails' but do not normally lead to a default.

**Counterparty Risk - The risk that a counterparty (i.e., a participant) will not settle its obligations for full value at any time.** This is simply the total default of a direct participant of the CSD. This is the event when a participant is unable to meet its financial liability to other participants. This risk only goes as far as direct participants of the CSD and excludes clients of direct participants that default on liabilities to such participants, even if such a default should systemically cause the direct participant to subsequently default.

**Asset Servicing Risk - The risk that a participant may incur a loss arising from missed or inaccurate information provided by the depository, or from incorrectly executed instructions, in respect of corporate actions and proxy voting.** This risk arises when a participant places reliance on the information a depository provides or when the participant instructs the depository to carry out an economic transaction on its behalf. If the depository fails either to provide the information or to carry out the instruction correctly then the participant may suffer a loss for which the depository may not accept liability. The depository may provide these services on a commercial basis, without statutory immunity, or it may provide the service as part of its statutory role, possibly with some level of protection from liability. This risk is likely to become much higher when international securities are included in the service.

**Financial Risk - The ability of the CSD to operate as a financially viable company.** This risk concerns the financial strength of the depository and if its financial resources are sufficient to meet the on-going operation of the organisation. This risk also includes where the CSD may act as central counterparty, or otherwise acts in a Principal capacity.

**Operational Risk - The risk that deficiencies in information systems or internal controls, human errors or management failures will result in losses.** The risk of loss due to breakdowns or weaknesses in internal controls and procedures. Internal factors to be considered in the assessment include ensuring the CSD has formalised procedures established for its main services. The CSD should have identified control objectives and related key controls to ensure operation and proper control of established procedures. Systems and procedures should be tested periodically. There should be external audit processes in place to provide third-party audit evidence of the adequacy of the controls.

### RATING SCALE

AAA	Extremely low risk
AA+	Very low risk
AA	
AA-	Low risk
A+	
A	
A-	Acceptable risk
BBB	
BB	Less than acceptable risk
B	Quite high risk
CCC	High risk
N/R	No rating has been given due to insufficient information

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Names of analysts available on request.

Report Date  
Egypt

4 June 2008

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