

### **Principle 1: Legal basis**

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

**Key consideration 1: The legal basis should provide a high degree of certainty for each material aspect of an FMI's activities in all relevant jurisdictions.**

Midclear's activities as a CSD and SSS consist of the following:

- Safekeeping of securities for participants;
- Immobilization of physical securities;
- Book-entry clearing and settlement of transactions in a secure and cost effective environment;
- Accurate, timely and cost effective means of collecting, distributing and accounting for dividend, interest payments, and redemptions, other corporate actions;
- Maintaining shareholders registers. By Law No 308 of April 3rd 2001, MIDCLEAR was appointed Central Registrar for all Lebanese banks' shares;
- Administering Mutual Funds;
- Sell buy-back transactions;
- Custodian for foreign securities in Euroclear and Clearstream.

Midclear's activities that require a high degree of legal certainty consist of the following:

- MIDCLEAR was established as a CSD in terms of Law no. 139 of October 1999.
- Law No. 308 of April 2001, designates MIDCLEAR as the Central Registrar for all Lebanese banks' shares, it also dematerialized all Lebanese banks shares.
- Default procedures: the bylaws of the BSE include under section six, chapter 6, procedures for handling defaults:  
<http://www.bse.com.lb/LawsRegulations/Bylaws/tabid/79/Default.aspx>

The relevant jurisdictions for each material aspect of Midclear's activities are Lebanon, Bahrain, Belgium, Cayman Islands, Jordan and Luxembourg.

**Key consideration 2: An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.**

Midclear published its rules and procedures on its website.  
<http://midclear.com.lb/RulesAndProcedures/LocalMarkets>

Midclear has demonstrated that its rules and procedures are clear and understandable since it has not received from its members or the community any questions to clarify the content of these documents.

Midclear's rules, procedures and contracts have to be approved by the Chairman before coming into effect.

**Key consideration 3: An FMI should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way.**

Midclear articulates the legal basis for its activities to relevant authorities, participants and, where relevant, participants' customers by publishing its rules and procedures and also relevant laws on its website.

**Key consideration 4: An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.**

Rules procedures and contracts will be given to Midclear's lawyer who will make sure that such documents are enforceable in all relevant jurisdictions and will not be voided, reversed or subject to stays.

**Key consideration 5: An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.**

Before Midclear holds securities via links in other jurisdictions, or foreign members hold securities at Midclear; Midclear's board of directors review all relevant laws to identify and analyze any potential conflict of laws issues. It should be noted that two board members of Midclear are lawyers.

## **Principle 2: Governance**

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

**Key consideration 1: An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.**

Midclear's objectives are to manage and operate a central securities depository, central registrar and clearing and settlement of Lebanese securities in a safe, accurate, efficient, and effective manner, thereby benefitting the interests of the securities and financial industry in Lebanon.

Midclear assesses its performance in meeting its objectives by:

- Safety: No loss of securities for any member.
- Accuracy: Regular reconciliation of transactions and balances.
- Efficiency: Working in a cost-effective manner.
- Effectiveness: No complaints recorded from Midclear's members.

Midclear's objectives place a high priority on safety and efficiency by having each department stress safety and efficiency to its employees in its operations.

Midclear's objectives explicitly support financial stability and other relevant public interest considerations by applying DVP principle and by recognizing settlement finality.

**Key consideration 2: An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.**

A document is being prepared detailing the governance arrangements and the lines of responsibility and accountability within Midclear under which Midclear's board of directors and management operate.

Accountability to owners is provided by submitting regular reports on its operations to the board of directors, participants and other relevant stakeholders.

**Key consideration 3: The roles and responsibilities of an FMI's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.**

Midclear S.A.L. governance structure consists of seven members. Five members represent the Central Bank of Lebanon, whereas, one member is appointed by the Governor (The external legal advisor) and one member nominated by the Governor and elected by the General Assembly (The Chairman of the board). The board serves for a term of three years. The General Manager of Midclear is also the Chairman of the board.

The board consists of the following:

The Chairman of the board,  
Central Bank of Lebanon's Heads of Department:  
Head of Real Estate and the Financial Assets department,  
Head of Legal Department,  
Head of IT Department,  
Head of Payment System Department,  
Head of Organization and Development Department,  
And, an External legal advisor.

In addition, the board members overlook Midclear's business each in its own specialization.

The board meets at least four times per year during which the chairman presents the unaudited financial figures for the preceding quarter. It should be noted that one board member (The director of the legal department in the Central Bank of Lebanon) has the power to approve the board's decisions. Since the board members are directors at the Central Bank of Lebanon, member conflict of interest is not present.

In view of the fact that the Central Bank of Lebanon owns 99.79% of Midclear, the governor nominates the board members for a period of three years. The board members in turn elect the chairman for a period of three years. According to the Lebanese Commercial Code each board member who has served less than two years has one vote and each board member who has served more than two years has two votes. It should be noted that the Governor of the Central Bank of Lebanon has given one board member (The director of the legal department in the Central Bank of Lebanon) all the voting power of all those board members who represent the Central Bank of Lebanon.

In view of the fact that the size of Midclear is small, there are no committees established. However, the chairman, being also the general manager, handles all matters and issues facing the company.

A Central Bank committee headed by The Governor of the Central Bank of Lebanon reviews the performance of the board as a whole and the performance of the individual board members, and also regulates the board members.

**Key consideration 4: The board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).**

Midclear's board has the appropriate skills and incentive to fulfill its multiple roles and it is clearly stated in the "corporate governance" section on its website. <http://midclear.com.lb/About/CorporateGovernance>

#### Board Structure

The board of Midclear is composed of seven members. Five members represent the Central Bank of Lebanon, whereas, one member is appointed by the Governor (The external legal advisor) and one member nominated by the Governor and elected by the General Assembly (The Chairman of the board). The board serves for a term of three years. The General Manager of Midclear is also the Chairman of the board.

#### Board Responsibilities and Performance

The board's responsibilities are to set company policy, procedures and personnel regulations and establish branch offices as it sees fit. A detailed financial report is sent on a monthly basis to the Governor of the Central Bank of Lebanon and to the Manager of the Real Estate and Financial Assets Department of the Central Bank of Lebanon. Four board meetings and one general assembly are held every year at Midclear's premises.

The board consists of the following:

The Chairman of the board,  
Central Bank of Lebanon's Heads of Department:  
Head of Real Estate and the Financial Assets department  
Head of Legal Department  
Head of IT Department  
Head of Payment System Department  
Head of Organization and Development Department,  
And an External legal advisor

In addition, the board members overlook Midclear's business, each in its own specialization.

The incentives that Midclear provides to board members consist of attendance and compensation fees, and renewal of board membership based on the performance of each board member.

The board includes six non-executive or independent board members.

Independent board member is defined as a person who does not hold an executive position in Midclear.

**Key consideration 5: The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.**

The roles and responsibilities of management are to ensure the efficiency and effectiveness of Midclear operations and to provide safeguards for members, traders and investors. This is done by delegating to each head of department different tasks according to the nature of the department.

Roles and objectives of management are set and evaluated by the general manager, reported to the board during board meetings, and communicated to the head of each department.

All Midclear's staff have the appropriate experience and they all have been trained. Employees are regularly being sent to trainings and seminars.

To remove management, if necessary, the process is as follows:

After an employee receives three written warnings, then the chairman has the right to deliver to such employee a written discharge thereby terminating the warned employee's employment.

In case of the chairman's mismanagement, the Governor of the Central Bank of Lebanon can discharge the chairman from his duties.

Should the chairman become incapacitated, the Governor of the Central Bank of Lebanon nominates a replacement of the incapacitated chairman.

**Key consideration 6: The board should establish a clear, documented risk-management framework that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.**

Midclear has zero tolerance for fault in its operations; consequently, it has built two data centers for business continuity.

**Key consideration 7: The board should ensure that the FMI's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.**

Midclear takes into account the interests of its participants and other relevant stakeholders by applying the international standards, due diligence visits and giving training seminars and workshops.

Major decisions made by the board are communicated to Midclear's management. In turn, Midclear's management formulates rules and regulations that are communicated to its participants.

### **Principle 3: Framework for the comprehensive management of risks**

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

**Key consideration 1: An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.**

The types of risks that arise in or are borne by Midclear are the following:

- Liquidity Risk
- Counterparty Risk
- Asset Safety Risk
- Asset Servicing Risk
- Financial Risk
- Operational Risk
- Governance and Transparency Risk
- CSD links risk
- Credit Risk
- Legal Risk
- General Business Risk

It is well known that the above risks have been internationally identified. Midclear regularly relies on reports to measure the effects of such risks. Consequently, Midclear monitors regularly such risks and tries to mitigate them by setting up appropriate risk responses through appropriate policies and procedures.

The risk management systems that Midclear utilizes have been developed internally and cover the following:

- Liquidity risk: it is minimized by the use of DvP model 3. There are also credit facilities, buy-ins and multiple processing cycles.
- Counterparty or credit risk: it is minimized by the use of delivery versus payment (DvP) and same day funds (Central Bank money)
- Assets servicing risk: it is minimized by the use of reliable official sources of information, timely accurate and comprehensive event notification and processing, straight through processing.
- Financial risk: it is minimized by having enough capital, being operationally profitable and by the use of comprehensive insurance.
- Operational risk: it is minimized by adequate and comprehensive internal controls and procedures, minimized

- manual processing and the use of straight through processing and by business continuity plans/disaster recovery plans.
- Asset safety risk: it is minimized by account segregation, reconciliation and audit of records
  - CSD links risks: it is minimized by assessing the financial soundness and the operational reliability of the CSD with which it intends to establish a link, by making sure the DvP is final and irrevocable.
  - Legal risk: it is minimized by the BSE law that a trade is final and irrevocable.

Developing, approving, and maintaining risk management policies are as follows: Whenever a new risk is detected, its impact is assessed by Midclear's risk management team. Appropriate risk response measures are formulated and reported to the board for approval. Once approved by the Board, such risk response measures become effective and are continuously assessed and monitored by Midclear's risk management team in order to determine whether they are capable of producing the intended result or not. If not effective, the process is started again by developing a new risk response procedure.

The effectiveness of risk management policies, procedures and systems is assessed by measuring and calculating the resultant effects of risks after appropriate risk response measures have been taken.

Risk management policies, procedures and systems are reviewed annually or whenever the statistics that are produced show an increase in risk intensity. Consequently, whenever such cases arise, risk responses are updated by Midclear.

**Key consideration 2: An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.**

The information that Midclear provides to its participants and, where relevant, their customers to enable them to manage and contain the risks they pose to Midclear are the following:

- Midclear regularly sends circulars to its participants on how to interact with its systems.
- Midclear organizes training for its participants on how to use its systems.
- Midclear organizes once per year due diligence visits to its participants.

Midclear designs its policies and systems in such a way that whenever a risk is detected as having a high probability of occurrence, Midclear contacts the concerned participant and discusses with them possible ways of mitigating such risks. For instance, when a failure to settle trades is detected earlier in the day

Midclear contacts the concerned participants to find a way to settle such trades rather than failing them.

**Key consideration 3: An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk-management tools to address these risks.**

The risk that Midclear bears from and poses to other entities are identified and assessed as part of its risk management process. Such risks exist whenever Midclear interacts or depends upon the services of other entities.

The material risks that Midclear have identified consists of the following:

- Operational risk:
  - o There is one risk type to consider for Midclear, mainly operational risk. Examples of such operational risks are:
    - Risk of lower settlement ratio.
    - The risk of being unable to complete settlement if major infrastructure systems are down (Central Bank).
  - o The main risks posed by Midclear to other entities are difficult to evaluate as their contingency procedures in case Midclear system is unavailable are not known.
- CSD link risk:
  - o The risk to the link to the foreign CSD is disconnected
  - o The risk that one of the vendors supplying Swift connectivity services to Midclear is inoperable.

Midclear regularly relies on statistical reports to measure the effects of such risks. Consequently, Midclear monitors regularly such risks and tries to mitigate them by setting up appropriate risk responses through appropriate policies and procedures.

Midclear reviews material risks annually.

Midclear regularly relies on reports to measure the effects of such risks. In addition, Midclear uses Microsoft Excel to address the effects of risks arising from interdependencies with other entities.

**Key consideration 4: An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.**

Midclear identifies scenarios that may potentially prevent the FMI from providing its critical operations and services by defining and prioritizing its critical operations and services.

The scenarios that have been identified are the following:

- Inability to complete settlement and other processes due to:
  - o The CSD links with other CSD's are unavailable.
  - o Either Midclear's system is not available.
  - o Or the National Payment System (NPS) is not available.

Midclear has been set up by law 139 and as such the possibility of orderly winddown is virtually impossible unless there is another law stating the opposite in which case all participant balances will be handed over to the new company that will do Midclear's work.

Concerning recovery options, the plan is as follows:

- If the main data center cannot provide critical operations and services, the second business continuity data center will become the primary data center that will provide critical operations and services.
- If both data centers become inoperable, Midclear will have to rely on its remote site to provide critical operations and services.

Midclear's key recovery or orderly wind-down strategies are given high attention. In case of orderly wind-down, Midclear's plan is to continue providing its critical operations until such time the new CSD has assumed all of Midclear's operations. In case of recovery, Midclear's plan is to continue providing critical operations in case of minor and major disasters. For this purpose, Midclear has established three data centers, two of which are nearby each other and one of which is in a remote area.

The plans for the Midclear's recovery are reviewed regularly but the plans for orderly wind-down are very remote and as such never reviewed.

#### **Principle 4: Credit risk**

An FMI should effectively measure, monitor, and manage its credit exposure to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two largest participants and their affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions. All other CCPs should maintain, at a minimum, total financial resources sufficient to cover the default of the one participant and its affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions.

**Key consideration 1: An FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current exposures, potential future exposures, or both.**

Midclear does not provide credit to its participants when performing payments clearing and settlement. As such Midclear has no current credit exposures. In the future, if Midclear extends credit to one of its participants it will consider providing a framework to manage such exposures.

The framework for managing credit exposures is reviewed whenever there is a change in payment clearing and settlement processes.

**Key consideration 2: An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.**

Midclear identifies the following as being the source of credit risk: payments, clearing and settlement. Currently Midclear does not face any credit exposure arising out of its operations.

Currently Midclear operations do not expose it to credit exposures.

Consequently, no measurement or recalculation is performed and no measurement of the effectiveness of controls is performed.

**Key consideration 3: A payment system or SSS should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see Principle 5 on collateral). In the case of a DNS payment system or DNS SSS in which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing, and settlement processes, such an FMI should maintain, at a minimum, sufficient resources to cover the exposures of the two participants and their affiliates that would create the largest aggregate credit exposure in the system.**

Midclear does not assume any credit exposure arising from payments clearing and settlement processes. No payment is ever made if the account does not have enough balance. No settlement is ever made where the cash or securities are deficient. Consequently, Midclear does not face any current and future credit exposure to any participant.

Midclear will review credit risk exposures whenever there is a change in payment, clearing, and settlement processes.

Neither the payment system nor the SSS is a DNS system. Moreover, if the transferor wants to transfer cash, the amount must be present in the account. Similarly, in the SSS no settlement is performed unless both cash and securities are covered. Consequently, participants do face credit exposure arising from the payment clearing settlement processes in case of insufficient cash. Furthermore, if there is deficiency in cash or securities, the trade is failed and retried later. The Beirut Stock Exchange is informed to take the appropriate actions (buy-in or sell-out). The Beirut Stock Exchange can utilize the bank guarantee that it has taken from each participant in order to enable Midclear to settle a failed trade as a result of cash deficiency.

**Key consideration 7: An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.**

Our rules and procedures do not include any mechanism to cover failures of trades as a result of cash deficiency. A failed trade is simply retried in the next settlement cycle or retried the next working day. In addition, the Beirut Stock Exchange is informed of such failure for it to take appropriate action.

Hence Midclear does not face credit losses.

**Principle 5: Collateral**

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Midclear does not accept collaterals since it does not extend credit to its participants. In addition, Midclear does not have credit exposure in the market.

Not applicable.

**Principle 6: Margin**

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Midclear does not transact any business related to CCP's and hence does not use a margining system.

**Principle 7: Liquidity risk**

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

Midclear does not borrow funds from any third party it has large cash reserves to allow it to function without any need for outside funds. In addition, Midclear does not guarantee settlement; a failed trade as a result of a cash deficiency is simply retried in the next settlement cycle or the next business day. The Beirut Stock Exchange is informed of the failed trade for it to take appropriate action.

### **Principle 8: Settlement finality**

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

**Key consideration 1: An FMI's rules and procedures should clearly define the point at which settlement is final.**

The settlement is considered final, irrevocable and unconditional at the point it is recorded in the books of Midclear. This is clearly stated in Midclear's rules and procedures and published on our website.

The settlement finality is not legally defined and documented. However, a settlement finality and irrevocability law should be drafted, approved by the Capital Market Authority (CMA), enacted by the parliament, circulated to our members, and published on our website under "Rules and Procedures".

Settlement finality is clearly stated in Midclear's rules and procedures which are published on its website, despite the absence of a law to this effect.

Midclear's interests are protected in other jurisdictions.

- In case of Euroclear: it is defined in their "Operating Procedures" available on their website.
- In case of Clearstream: it is defined in their "CBL Customer Handbook" available on their website.

Consistency of finality is achieved by locking the cash balances meant for settlement in the RTGS. Midclear locks for a short duration all cash accounts of our participants in the Central Bank. The locking period is short enough to allow us to settle the securities leg after checking that cash and securities are covered.

Immediately following the settlement of the securities leg, the cash leg is settled. After that, the cash accounts of Midclear participants are unlocked and the settlement is considered final and irrevocable.

**Key consideration 2: An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple-batch processing during the settlement day.**

Midclear's system is designed to complete final settlement on the value date. Midclear matches both legs and completes the settlement on the value date. However, failed obligations (Securities and/or Cash) at the end of the value date will be retried the next business day. In the case of failures as a result of security deficiency the Beirut Stock Exchange (BSE) is informed, they will initiate a buy-in which will cover the deficiency and enable the original trade to

be settled. In the case of cash deficiency, the BSE is informed who will invoke the bank guarantee or initiate a sell-out to enable the original trade to be settled.

Midclear didn't experience deferral of final settlement to the next business day that was not contemplated by its rules, procedures or contracts. It is important to note, deferral of final settlement to the next business day as a result of deficiency in securities or cash, is contemplated by Midclear's rules procedures or contracts.

Midclear provides intraday final settlement. This is achieved through multiple settlement cycles per business day. Participants are informed of the final settlement by posting it online.

Over the Counter (OTC) trades and listed trades are both settled in three settlement cycles from Monday to Thursday (at 09:45, 11:45 and 13:45) and two settlement cycles on Friday (at 09:45 and 11:45). <http://midclear.com.lb/Services/ClearingAndSettlement>. Each cycle needs normally 15 minutes to complete.

If a participant of Midclear does not have enough funds or securities at the settlement time, the trade will be removed from the settlement cycle and both counterparties will be informed. Failed trades will be retried in the next cycle. If at the end of the last cycle in the business day the transaction did not settle, then:

- If it's an OTC trade, it will be retried in the next business day
- If it's a BSE trade, it will be suspended, reported to the Beirut Stock Exchange (BSE) and the concerned participants
- If the deficiency is in the security leg, a buy-in may be initiated by the BSE and both trades (the original trade and the buy-in) are all settled in the same settlement cycle. It is important to note that a suspension cannot be solved via a normal trade.
- If the deficiency is in the cash leg, a sell-out may be initiated by the BSE and both trades (the original trade and the sell-out) are all settled in the same settlement cycle. It is important to note that a suspension cannot be solved via a normal trade.

It is important to note that it's up to Midclear's discretion to decide which trades to fail in a way to minimize the domino effect of the trades. (Refer to Rules and procedures for local market document published on Midclear's website section XI - Settlement Cycles)

<http://midclear.com.lb/Files/RulesAndProcedures/LocalMarkets/Local%20Markets%20Rules%20eng.pdf>

If a participant of Midclear does not have enough funds or securities at the settlement time, the trade will be removed from the settlement cycle and both counterparties will be informed. Failed trades will be retried in the next cycle. If at the end of the last cycle in the business day the transaction did not settle, it

will be retried the next business day. The status of those transactions is "Awaiting settlement cycle" and once settled they become "Final".

Midclear does not provide settlement in real time. However, it provides intraday settlement.

**Key consideration 3: An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.**

BSE trades, whether settled or unsettled, can never be revoked. However, OTC trades cannot be revoked if settled. In case an OTC trade is still unsettled, it can only be revoked by both parties to the trade sending cancellation instructions.

(Refer to Rules and procedures for local market document published on Midclear's website section XI - Settlement Cycles)

<http://midclear.com.lb/Files/RulesAndProcedures/LocalMarkets/Local%20Markets%20Rules%20eng.pdf>

Midclear rejects and ignores any unilateral requests for revocation.

It is important to note the following two cases:

Midclear accepts postdated instructions for up to twenty business days for the future.

- Case 1: If a with matching OTC instruction is received without a counterparty matching instruction and remains so until the last settlement cycle of the settlement date, then it will be deleted at the end of the day.
- Case 2: A matched instruction, whose settlement date has been reached, will be deleted after the last settlement cycle of the tenth business day if it continues to be unsettled.

In both of the above cases members will be charged double the normal cancellation fee.

### **Principle 9: Money settlements**

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimize and strictly control the credit and liquidity risk arising from the use of commercial bank money.

**Key consideration 1: An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.**

Midclear conducts money settlement in central bank money through the central bank's RTGS system.

Midclear conducts settlement in USD and LBP.

**Key consideration 5: An FMI's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement banks are expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the FMI and its participants to manage credit and liquidity risks.**

Midclear's agreement with its only settlement bank (the Central Bank) allow it to settle throughout the business day and such cash settlements are final when effected and the funds received are transferrable.

Midclear conducts money settlement in central bank money through the central bank's RTGS system. At settlement time of a transaction, the buyer's clearing account at the Central Bank is debited and Midclear's account is credited. At the same time Midclear's account is debited for the same cash amount and the seller's clearing account is credited. At the end of day, all remaining balances in Midclear's clearing accounts are automatically transferred into their respective current accounts of each member.

When a member is credited as a result of a settlement it can transfer its received funds to any other account respecting the cutoff times of the BDL RTGS system.

### **Principle 10: Physical deliveries**

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

**Key consideration 1: An FMI's rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.**

Midclear accepts equities and debt instruments for physical delivery.

Midclear clearly defines its obligations and responsibilities in its rules and procedures document published on its website with respect to the delivery of physical instruments as follows:

- Deposit: Midclear accepts for deposits Lebanese securities (Nominal) that exist in physical form (certificates) and the name of the shareholder must be clearly written on the certificate so that it will be recorded in the name that appears on the certificate
- Withdrawals: Any withdrawal request not mentioning the shareholder name will be rejected.

The procedure for effecting physical delivery is communicated to all participants through trainings and seminars and can also be found in Midclear's rules and procedures which are published on its website.

**Key consideration 2: An FMI should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.**

Midclear identified the following risks and costs associated with storage and delivery of physical instruments:

Operational risk (fire, theft, damage, loss, employee infidelity).

Midclear has several insurance policies covering fire, theft, employee infidelity to cover loss or damage to physical certificates in its safe.

Midclear utilizes insurance policies, cameras, fire extinguishers dehumidifiers, door sensors to monitor and manage any identified risks and costs associated with storage and delivery of physical instruments.

### **Principle 11: Central securities depositories**

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry.

**Key consideration 1: A CSD should have appropriate rules, procedures, and controls, including robust accounting practices, to safeguard the rights of securities issuers and holders, prevent the unauthorised creation or deletion of securities, and conduct periodic and at least daily reconciliation of securities issues it maintains.**

The rights of securities issuers and holders are safeguarded by Midclear's controls and consist of the following:

- Clients assets and own assets are completely separated.
- Double entry accounting according to the debit credit principle.
- Balance between debit and credit at all times.
- Simultaneous booking of securities and cash leg.
- The daily integrity check performed by the operations team.
- Four eyes principle.
- Making sure that the total under custody is never greater than the total issued.
- Same day reconciliation on the date of transactions.
- Reconciliation at month end.

Midclear's rules, procedures and controls ensure that the securities it holds on behalf of participants are appropriately accounted for on its books and protected from risks associated with the other services the CSD may provide by performing the following:

- Making sure that no change in the balance of any security account happens unless it is supported by a valid and authenticated instruction.
- Double control: No single person can perform a transaction. It requires a maker/checker.

Midclear's rules and procedures are published on its website.

Midclear ensures that it has robust accounting practices by applying the following:

- Clients assets and own assets are completely separated.
- Double entry accounting according to the debit credit principle.
- Balance between debit and credit at all times.
- Simultaneous booking of securities and cash leg.
- The daily integrity check.
- Four eyes principle.
- Making sure that the total under custody is never greater than the total issued.
- Same day reconciliation on the date of transactions.
- Reconciliation at month end.

Concerning audits review whether there are sufficient securities to satisfy customer rights, it should be noted that checks are performed by Midclear's system and the operation team to make sure that there are sufficient securities to satisfy customer rights.

Any creation or deletion of a security shall be initiated by its holder or issuer (deposit, withdrawal, redemption, new issue, dematerialisation, rematerialisation).

- In case of dematerialisation: it is done directly with the issuer and then with Midclear.
- In case of rematerialisation: it is done with Midclear and then with the issuer.

Whenever a security is admitted in Midclear, the issuer is contacted to know the actual total issued.

Midclear's internal controls to prevent the unauthorized creation and deletion of securities are:

- Four eyes principles.
- SWIFT instructions are automatically authenticated.
- Hard copy instructions are verified against the authorized signature list.
- The final control and approval of the head of department.

Midclear conducts daily reconciliation of the totals of securities issues in the CSD for each issuer.

Midclear makes sure that the total number of securities recorded in Midclear for a particular issue is equal to the amount of securities of that issue held in Midclear's books by:

- Conducting integrity checks.
- Cooperating with the issuers to ensure that the securities in circulation correspond to the volume issued.

All securities are held by Midclear's clients (financial institutions) and their balances are reconciled by them. Any balance exceeding or being less than the total number of securities issued will create a deficiency and an integrity problem in Midclear's system.

In case of discrepancy between Midclear and any of its participants, reconciliation is performed to determine the source of the error.

Midclear reconciles its records with the official registrar by sending the official registrar a list of all balances and transactions of Midclear's participants. Also, any transaction happening directly at the registrar is sent to Midclear to be reflected in its books and this will make the reconciliations accurate.

Therefore, when Midclear is not the official registrar, the size and the details of the issue are obtained from the issuer/registrar.

**Key consideration 2: A CSD should prohibit overdrafts and debit balances in securities accounts.**

Overdrafts are not allowed; integrity checks are performed daily to make sure that overdrafts are not allowed.

**Key consideration 3: A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry. Where appropriate, a CSD should provide incentives to immobilise or dematerialise securities.**

Not all securities are issued or maintained in a dematerialized form.

All banks shares are issued and maintained in a dematerialized form (law number 308 of 2001)

All listed securities are dematerialized.

For some securities if they are issued as a physical certificate, it is possible to immobilise them and allow their holding and transfer in a book-entry system.

In order to immobilise or dematerialise securities Midclear provides the following:

- Dematerialisation for free.
- Rematerialisation is charged by a USD25 fee per shareholder per security.

**Key consideration 4: A CSD should protect assets against custody risk through appropriate rules and procedures consistent with its legal framework.**

Midclear's rules and procedures protect assets against custody risk, including the risk of loss because of Midclear's negligence, misuse of assets, fraud, poor administration, inadequate recordkeeping or failure to protect participants' interests in their securities through

- Clients assets and own assets are completely separated.
- Double entry accounting according to the debit credit principle.
- Balance between debit and credit at all times.
- Simultaneous booking of securities and cash leg.
- The daily integrity check.
- Four eyes principle.
- Making sure that the total under custody is never greater than the total issued.
- Same day reconciliation on the date of transactions.
- Reconciliation at month end.
- Fire alarms.
- 24 hours video recording.
- Insurance policy covering loss, theft, fire, computer fraud and employee's infidelity.

Midclear determined that those rules and procedures are consistent with the legal framework through articles 2 and 3 of law number 139 of October 1999.

In order to protect its participants against misappropriation, destruction and theft of securities, Midclear has an insurance policy covering all the previously mentioned risks.

**Key consideration 5: A CSD should employ a robust system that ensures segregation between the CSD's own assets and the securities of its participants and segregation among the securities of participants. Where supported by the legal framework, the CSD should also support operationally the segregation of securities belonging to a participant's customers on the participant's books and facilitate the transfer of customer holdings.**

Midclear opens an account for its participants which is further segregated into own portfolio and participant client's portfolio.

Midclear financial assets are only held in cash that are held in commercial banks.

Midclear ensures segregation among the securities of participants by having an account for each participant. It is important to note that Midclear does not hold security balances in the CSD; all balances are dedicated to its participants and segregated by having a different account to each participant.

There is one account for each participant which is segregated into:

- Own portfolio
- Client portfolio

Midclear facilitates the transfer from one customer's accounts to another participant by receiving valid and authenticated transfer instructions.

**Key consideration 6: A CSD should identify, measure, monitor, and manage its risks from other activities that it may perform; additional tools may be necessary in order to address these risks.**

Midclear provides services other than central safekeeping and administration of securities and settlement:

- National Numbering Agency for securities issued in Lebanon.
- Administration of mutual funds.
- Registrar.
- Midclear acts as a custodian for our participants vis-à-vis Euroclear and Clearstream

Midclear has identified operational risk as associated with those activities; all other risks including credit or liquidity risks do not exist as Midclear does not extend credit and does not conduct business for its own account and does not guarantee trades.

In order to minimize its operational risks, Midclear uses different policies:

- By using monitoring software that will alert the IT team of any failure so that it can be mitigated.
- By utilizing the internet in replacement of SWIFT.
- Each Head of Department is responsible for operational reliability issues.
- Personnel related risks are related to the Chairman.
- The data center capacity is greater than the current requirement hence providing for scalability when it is needed.
- The security that Midclear is using is in line with the best industry practices in terms of fire extinguishers, motion detectors, recording cameras and fingerprint doors.
- By employing the proper qualified personnel.
- By having the proper IT systems.
- By acquiring the latest technology in security systems (cameras, fire extinguisher...).
- By applying the procedure of four eyes principle.

Midclear measures monitors and manages operational risk by making sure at all times that its systems can resume in a short time normal operations following an interruption.

And this is done by designing Midclear's systems to have:

- Minimal recovery time objective:
  - In case of a failure in IT systems that does not affect both data centers, the system is designed so that the recovery time is one hour
  - In case of a failure in IT systems that does affect both data centers, the system is designed so that the recovery time is two hours
- Minimal recovery point objective:
  - In case of a failure in IT systems that does not affect both data centers, the system is designed so that the recovery point is close to zero
  - In case of a failure in IT systems that does affect both data centers; the system is designed so that the recovery point is 15 min.

## **Principle 12: Exchange-of-value settlement systems**

If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

**Key consideration 1: An FMI that is an exchange-of-value settlement system should eliminate principal risk by ensuring that the final settlement of one obligation occurs if and only if the final settlement of the linked obligation also occurs, regardless of whether the FMI settles on a gross or net basis and when finality occurs.**

Principal risk is eliminated through the use of DVP settlement and netting Model 3. Linked obligations are settled on a DVP model 3 net-net basis.

In each settlement cycle Midclear does the following:

- It locks the cash and securities accounts of all financial institutions and gets their balances.
- All sellers' accounts are checked if there is enough balance in the securities accounts for the net sale.
- All buyers' accounts are checked if there is enough balance in the cash accounts for the net buy.
- All failures are to be retried later either in the next cycle or in the next working day.
- A concurrent batch is formed and sent to BDL RTGS for execution.
- Upon receipt of the success of the execution of the concurrent batch, the security accounts side is processed.
- The entire process is automated, Midclear and all its financial institutions can verify that their accounts were debited or credited.

The length of time between the locking and final settlement of both obligations is minimized to 15 minutes.

### **Principle 13: Participant-default rules and procedures**

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

**Key consideration 1: An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.**

Midclear's rules and procedures do deal with operational default of participants. In case they lose connectivity with SWIFT, they can send Midclear a fax to be followed by the original duly signed. In case the connection with the Beirut Stock Exchange (BSE) is lost, a password protected USB is sent to Midclear.

However, concerning financial default, Midclear is only able to define the following events as causing default: Failure on settlement to have enough securities or to have enough cash.

Midclear's rules and procedures do deal with operational default of participants. In case they lose connectivity with SWIFT, they can send Midclear a fax to be followed by the original duly signed. In case the connection with the Beirut Stock Exchange (BSE) is lost, a password protected USB is sent to Midclear.

However, concerning financial default, Midclear is only able to define the following events as causing default: Failure on settlement to have enough securities or to have enough cash.

Midclear does not guarantee settlement; a failed trade as a result of a cash or securities deficiency is simply retried at the next settlement cycle or the next business day. The Beirut Stock Exchange is informed of the failed trade for it to take appropriate action.

- In case of financial default: In case of default of cash or securities actions are automatic and discretionary. In other words, the actions are automatic when the participant default consists of just one trade. However, the actions are discretionary when the participant default consists of two or more trades.
- In case of operational default: actions are automatic. Midclear's rules and procedures do deal with operational default of participants. In case they lose connectivity with SWIFT, they can send Midclear a fax to be followed by the original duly signed. In case the connection with the Beirut Stock Exchange (BSE) is lost, a password protected USB is sent to Midclear

No changes to normal settlement practices even in the case of any operational failure with one of Midclear's participants.

The management of transactions will be affected as a result of participant default simply because Midclear needs to investigate what other trades will fail as a result of the initial default of the participant.

It is important to note, if a trade fails on the first settlement cycle, no action is taken except informing both counterparties to this particular trade. However, if a trade fails to settle on the final cycle, Midclear suspends the trade and informs the Beirut Stock Exchange.

Midclear does not maintain any financial resources nor will it use its own resources to complete settlements.

**Key consideration 2: An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.**

The Head of Local Operations is authorized by the General Manager to take necessary measures to suspend a trade.

Midclear's members can track the status of their instructions at the end of each settlement cycle. In case there is a problem, Midclear gets in touch with the Central Bank in order to track the problem and see if the cause of the problem is from Midclear's end or the BDL's RTGS end.

**Key consideration 3: An FMI should publicly disclose key aspects of its default rules and procedures.**

Midclear takes care of a participant default by removing and suspending the trade. However, forced buy-ins or sell-outs are handled and initiated by the BSE if required.

The Head of Local Operations with the approval of the Chairman may take action of suspending a deal in case of a participant default.

Midclear is taking care of the default by suspending a trade at the last settlement cycle in a business day and by informing both parties to the trade and the BSE of the suspension.

**Principle 14: Segregation and portability**

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Not applicable for Midclear.

### **Principle 15: General business risk**

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

**Key consideration 1: An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.**

Midclear identifies its general business risks and tries to limit them by:

- Diversifying its revenues.
- Having limited operating expenses because of its limited number of staff.
- Having an insurance policy that covers: Fire, theft, employee infidelity, etc.

**Key consideration 2: An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken.**

Midclear holds USD 29.1 million of liquid net assets funded by equity so that it can continue operations and services as a going concern if it incurs general business losses

Midclear calculates the amount of liquid net assets funded by equity to cover its general business risks as: Cash and bank balances – Current liabilities  
It is important to note that Midclear holds liquid net assets more than 3 years of current operating expenses.

**Key consideration 3: An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, an FMI should hold liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.**

Midclear does not use its resources to cover any participant default.

Midclear has enough resources to take care of 3 years of current operating expenses.

Midclear adopts the International Financial Reporting Standards (IFRS). Core capital consisting of: common stock, retained earnings and surplus are used to cover general business risks.

**Key consideration 4: Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.**

Cash at banks by itself is enough to cover 3 years of operating expenses.

**Key consideration 5: An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.**

Midclear is owned by the Central Bank (99.8%) and at this point of time, given the core capital that Midclear is holding, it does not need to raise additional equity.

The plan to raise additional equity is permitted by Midclear's bylaws but so far it is not needed.

The board has to approve any plans to raise additional equity if required.

### **Principle 16: Custody and investment risks**

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

**Key consideration 1: An FMI should hold its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.**

The nature of Midclear participants' holdings is Eurobonds denominated mainly in USD and since Euroclear and Clearstream are well known and well established ICSD's, Midclear chose them.

Both Euroclear and Clearstream are regulated by their respective statutory regulators (Bank of Belgium for Euroclear and Bank of Luxembourg for Clearstream).

Both Euroclear and Clearstream have published their compliance to the PFMI's since both are governed by EMIR and ESMA and regulated by the central banks or the security regulators that are bound to implement the PFMI's and to adhere to them.

**Key consideration 2: An FMI should have prompt access to its assets and the assets provided by participants, when required.**

Midclear established that it has a sound legal basis to support enforcement of its interest through the operating procedures and terms and conditions of both ICSDs.

The ICSD's assets are separate from the assets of its clients. Both Belgium (Euroclear) and Luxembourg (Clearstream) have laws that allow Midclear (As a participant in the ICSDs) to transfer its assets to another FMI in case of Euroclear or Clearstream default.

**Key consideration 3: An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.**

Euroclear and Clearstream are custodians and settlement banks for Midclear; no other relationship exists with them. They are neither a liquidity provider nor a credit provider; as such the risks with these custodians are minimal.

**Key consideration 4: An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.**

Midclear invests its surplus in fixed deposits in banks and if Midclear needs the cash it will only lose the interest for the period.

Midclear's cash is spread over four commercial banks which have good ratings and supervised by the Central Bank and the Banking Control Commission. The investments are placed in supervised entities which are highly rated.

The investment strategy takes into account the need for diversification. Accordingly, the investments in these four banks are placed under a certain limit.

Fixed deposits can be easily liquidated and the fact that we lose interest is taken into consideration.

### **Principle 17: Operational risk**

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfillment of the FMI's obligations, including in the event of a wide-scale or major disruption.

**Key consideration 1: An FMI should establish a robust operational riskmanagement framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.**

Midclear's processes identify plausible sources of operational risks by:

- Assessing the adequacy of controls to comply with the requirements outlined by the Board of directors of Midclear, Central Bank regulations and circulars, CMA regulations.
- Identifying gaps and possible operational issues from the self-assessment against the international standards relating to operational risk.
- Keeping up with international standards, setting operational standards and commercial standards (STP, ISIN, Settlement finality, SWIFT, trade matching, reconciliation, DVP model 3, RTGS, information security, business continuity and project management)
- By segregating and analyzing them very closely in order to measure and review the performance and correct deficiencies if any.

The main operational risks that have been identified by Midclear are as follows:

- System related disruptions
- Participant facing operational issues
- Operational reliability issues
- Personnel related risks
- Scalability risks
- Security risks
- Pandemic risks

Potential single points of failure in terms of hardware, software, network infrastructure and utility providers have been identified. These have been effectively addressed using a combination of operational procedures and appropriate system architecture and data center management processes.

A remote disaster recovery (DR) site has been established and the data is replicated from the main site to the back-up site.

Midclear monitors and manages the identified operational risks by using the following:

- Monitoring software that will alert the IT team of any failure so that it can be mitigated.
- Utilizing the internet in replacement of SWIFT.
- Each Head of the Department is responsible for operational reliability issues and personnel related risks and those are managed by the Chairman.
- The data center capacity is greater than the current requirement hence providing for scalability when it is needed.
- The security that Midclear is using is in line with the best industry practices in terms of fire extinguishers, motion detectors, recording cameras and fingerprint doors.

In order to ensure that operational procedures are implemented appropriately, Midclear employs the following:

- Choosing the proper qualified personnel
- Having the proper IT systems. Midclear measures monitors and manages operational risk by making sure at all times that its systems can resume in a short time normal operation following an interruption
- Acquiring the latest technology in security systems (cameras, fire extinguisher....)
- Maintaining the procedure of four eyes principle.
- Designing Midclear's systems to have:
  - Minimal recovery time objective:
    - In case of a failure in IT systems that does not affect both data centers the system is designed so that the recovery time is one hour.
    - In case of a failure in IT systems that does affect both data centers the system is designed so that the recovery time is two hours.
  - Minimal recovery point objective:
    - In case of a failure in IT systems that does not affect both data centers the system is designed so that the recovery point is close to zero.
    - In case of a failure in IT systems that does affect both data centers the system is designed so that the recovery point is fifteen minutes.

Midclear's systems, policies, processes and controls take into consideration relevant international, national and industry-level operational risk management standards to a large extent.

There is no HR department at Midclear, but the Chairman is taking care of this role and sending people to training workshops and seminars.

Qualified personnel are hired depending on their university degree and an interview with the head of the concerned department.

Midclear's human resources and risk management policies address fraud prevention by applying the four eyes principle and every sign-in to the systems is logged.

**Key consideration 2: An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk-management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.**

Midclear does not engage the external auditors in operational risk management framework audit.

**Key consideration 3: An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.**

The operational reliability objective of Midclear consists of the following:

- All computer systems components hardware and software must be operational at all times during office hours with minimal downtime when interruption or adverse events occurs
- The recovery from interruptions and or adverse conditions can take between a few minutes and one hour

These objectives ensure a high degree of operational reliability since Midclear has designed two data centers connected to each other and backing up each other in real time.

The main policy is to respond to adverse risks in an appropriate and timely manner.

**Key consideration 4: An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its servicelevel objectives.**

Midclear's system has been designed for 3000 transactions per day but a stress test must be done at a later stage.

Situations where operational capacity is neared or exceeded are addressed as follows:

- For local market operations department:
  - Problem: a high number of trades per day which caused extreme and excessive delays in trade allocation in the market.
  - Solution: this was solved by a complete review of Midclear's local market operations and the introduction of an online shareholder allocation system.
- For shareholder registry department:
  - Problem: there was a problem managing the large number of paper documents related to shareholder information.
  - Solution: this was solved by the introduction of the document management system.
- For mutual fund administration department:
  - Problem: the heavy use of excel sheets instead of a proper system for administering funds.
  - Solution: the introduction of a fully-fledged mutual funds administration system.

**Key consideration 5: An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.**

Midclear's two data centers are protected by a 24h security officer and the two buildings are secured by cameras and guards, where access is restricted to only authorized personnel.

The security that Midclear is using is in line with best industry practices in terms of fire extinguishers, motion detectors, recording cameras and fingerprint doors.

The plausible sources of information security vulnerability and threats are protected by the following:

- Antivirus throughout the organization
- Intrusion prevention systems
- Disabling the use of USB drives

Policies, processes, controls and testing appropriately take into consideration relevant international, national and industry-level standards for information security to a large extent.

**Key consideration 6: An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.**

Midclear has three data centers, two of them in the same area and one remote. In case of disruptions and especially in case of extreme circumstances if one of the two sites in the same area is still intact, Midclear operations would continue in a normal manner and if both sites were disrupted completely the remote site will be used. Resumption of work when one of the sites in the same area is still intact requires one hour. Resumption of work when the remote site is to be used requires two hours.

If one of the data centers in the same area is still functional, no data loss occurs since the replication is synchronous and hence no data loss. However, if both data center in the same area get totally disrupted at the same time, there is a slight chance of data loss since the replication of data is asynchronous. In that case Midclear needs to reconcile with its participants the possible loss of transactions.

Based on its experience, Midclear has identified two crisis situations

- Strikes, riots and road blocks
- War and petrol shortages

Based on these situations, Midclear has performed these actions

- Utilizing the in-house developed work from home system for conducting daily work.
- Reserving in a nearby hotel within walking distance to key employees.

In case of any problem, Midclear informs BSE and BDL.

The disaster recovery site is 28 kilometers away from our office location. For major disruptive events, this disaster recovery site will be used. "The secondary business continuity site" is one kilometer away from our primary location and it will be used for minor disruptive events.

**Key consideration 7: An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other FMIs.**

Midclear identified the following risks to its operations arising from its key participants, other FMIs and service and utility providers:

- Midclear's key participants hold its assets, if they shut down, we won't be able to make payments or access our cash.
- If the RTGS system is down, Midclear won't be able to perform settlement.
- If the internet from our utility providers is down our work will be affected.

Midclear monitors and manages these risks by:

- o Diversifying its assets with four major banks.
- o BDL reverting to their DR site.
- o Signing a contract with different internet providers avoiding that a single provider would put Midclear operations at risks.

In case all links between Midclear and the RTGS goes down, and in absence of any other link with the Central Bank, Midclear has to physically go to BDL and enter the instruction manually.

### **Principle 18: Access and participation requirements**

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

**Key consideration 1: An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.**

Lebanese and foreign banks, financial institutions, funds, central securities depositories, clearing houses, issuers, and central banks are eligible to become members of Midclear. They must submit a written request of affiliation and enclose therewith the following official documents:

- For resident financial institutions:
  - The Articles of Incorporation of the prospective member duly legalized.
  - A copy of the commercial registration extract.
  - A copy of the ministry of finance taxation number.
  - A copy of the Capital Market Authority approval.
  - Central Bank of Lebanon approval.
  - List of persons authorized to sign accounting forms which will be used in the prospective member's operations with Midclear, along with a specimen of their signatures.
- For resident funds:
  - The Articles of association duly legalized.
  - A copy of the ministry of finance taxation number.
  - A copy of the Capital Market Authority approval.
  - Private placement memorandum
  - List of persons authorized to sign accounting forms which will be used in the prospective member's operations with Midclear, along with a specimen of their signatures.
- For non-resident financial institutions:
  - A sub-custody agreement duly signed.
  - The Memorandum and Articles of Incorporation duly legalized.
  - Certificate of Incorporation.
  - Copy of the Regulator approval.
  - List of persons authorized to sign accounting forms which will be used in the prospective members operations with Midclear, along with a specimen of their signature.
- For non-resident funds:

- The Memorandum and Articles of Incorporation duly legalized.
- Certificate of Incorporation.
- Copy of the Regulator approval.
- Private placement memorandum
- List of persons authorized to sign accounting forms which will be used in the prospective members operations with Midclear, along with a specimen of their signature.

Midclear does allow for fair and open access to its services.

**Key consideration 2: An FMI's participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least-restrictive impact on access that circumstances permit.**

- The participation requirements are decided upon by the Capital Market Authority.
- A broker must obtain a license from the BSE.
- Capital and financial requirements are taken care by the BSE.
- Midclear is adequately covering all the risks because all brokers on BSE are required by law to be a member of Midclear.

By law 308 Midclear is the central registrar for all Lebanese banks' shares therefore they are required by law to be a member of Midclear.

Any licensed broker by the BSE is required by law to be a member of Midclear.

Not all classes of participants are subject to the same access criteria, the difference between banks, brokers, mutual funds and issuers are:

- BSE brokers have access to all systems.
- Banks, Issuers and Mutual Funds don't have access to BSE related sub-systems.
- Most Issuers only have access to registrar systems. However, some are custodians as well.
- Mutual funds only have access to mutual funds systems. However, some are custodians as well.

Any change in the operational scope of a member is tracked and the appropriate restrictions applied to the new scope of operation.

**Key consideration 3: An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.**

Midclear carries out due diligence visits and looks at its member's systems and relies on the BCC (Banking Control Commission) for their finances but there is no follow up monitoring access criteria.

**Principle 19: Tiered participation arrangements**

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

**Key consideration 1: An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.**

Midclear does not have tiered participation arrangements since any access to Midclear systems is restricted to Midclear members.

## **Principle 20: FMI links**

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

**Key consideration 1: Before entering into a link arrangement and on an ongoing basis once the link is established, an FMI should identify, monitor, and manage all potential sources of risk arising from the link arrangement. Link arrangements should be designed such that each FMI is able to observe the other principles in this report.**

Midclear's process used to identify potential sources of risk arising from prospective links has been taken into consideration as follows:

- The links established by Midclear with Euroclear and Clearstream was preceded by an internal review and discussions. The risks associated with such links continue to be monitored on an ongoing basis and form part of the risk management framework used by Midclear.
- In case of operational risk: if one link is down the alternative backup link is triggered.
- In case of custody risk: integrity checks are done daily and any difference is reconciled and resolved in order to eliminate custody risks.
- In case of credit and liquidity risk: Midclear does not face credit and liquidity risks as it does not borrow money from such FMI's.

Links with Euroclear and Clearstream have been established. Midclear identifies risks arising from an established link on an ongoing basis by the types of business transactions that are carried out through such link. Midclear monitors and manages the risks arising from an established link on an ongoing basis by conducting integrity and reconciliation checks on a daily basis.

**Key consideration 2: A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the FMIs involved in the link.**

Midclear has established links in Belgium and Luxembourg. The relevant legal frameworks supporting the established links are the laws of Belgium and Luxembourg.

**Key consideration 3: Linked CSDs should measure, monitor, and manage the credit and liquidity risks arising from each other. Any credit extensions between CSDs should be covered fully with high-quality collateral and be subject to limits.**

Midclear has not faced any credit or liquidity risks since it does not have a credit or liquidity exposure with such ICSD's.

**Key consideration 4: Provisional transfers of securities between linked CSDs should be prohibited or, at a minimum, the retransfer of provisionally transferred securities should be prohibited prior to the transfer becoming final.**

Midclear does not allow provisional transfers of securities.

**Key consideration 5: An investor CSD should only establish a link with an issuer CSD if the arrangement provides a high level of protection for the rights of the investor CSD's participants.**

The reconciliation of holdings is conducted daily with Euroclear and Clearstream.

The level of protection is the same protection given as if the participant has opened a security account directly with Midclear.

### **Principle 21: Efficiency and effectiveness**

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

**Key consideration 1: An FMI should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products cleared, settled, or recorded; and use of technology and procedures.**

Midclear takes into account the needs of its participants by:

- Inviting them to meetings especially when launching a new system and constantly engaging with them thru conferences and workshops.
- Using DVP model 3 and T+3 for settlement. These settlement arrangements serve the market needs.
- Having a website "Midclear Online" in order to further improve its services. Midclear's participants can login to its systems using a smart card and send all kind of instructions.
- Complying with all Lebanese laws, BDL circulars and CMA directives concerning the CSD.

In order to meet the requirements and needs of its participants and continue to meet those requirements as they change, Midclear:

- Schedules due diligence meetings throughout the year in order to further improve its services depending on its participants business needs.
- Constantly engages with its participants through meetings, phone calls and emails.
- Organize training sessions for its members especially when a new product is being launched.

**Key consideration 2: An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities.**

Midclear's goals and objectives as far as the effectiveness of its operations is concerned, is to serve the needs of the Lebanese market. No complaints received so far and it complies 100% with laws, circulars, and directives.

In order to ensure that Midclear has clearly defined its measurable and achievable goals and objectives several targets have been set in order to meet:

- System reliability and availability: Midclear has a 99.99% uptime target for its systems.
- Downtime period: Minimal downtime period outside office hours.
- Backup plan: if one system goes down there's always an alternative way to send instructions (SWIFT, Midclear Online, Fax, Hard Copy, Email).
- Robust systems: effective systems are being used in day to day operations, some of them are built in-house and some others bought from reliable sources.

All our projects (embodying our goals and objectives) have been completed successfully with no complaint from our participants. We have not received any questions regarding our systems which mean that our participants fully know how to interact with Midclear's systems.

**Key consideration 3: An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.**

In order to evaluate its efficiency and effectiveness Midclear uses:

- Robust and reliable systems for its operations.
- Fixed settlements cycles timings (09:45, 11:45 & 13:45 from Monday to Thursday and 09:45 & 11:45 on Friday).
- A clear business continuity plan (BCP).

Efficiency and effectiveness are evaluated on a quarterly basis by reporting the total number of trades, the volume and the system reliability to the Board.

## **Principle 22: Communication procedures and standards**

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

**Key consideration 1: An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.**

Midclear uses an internationally accepted communications procedure:

- As SWIFT Service: SWIFT is used domestically between Midclear and its participants. Also it is used with Clearstream and Euroclear.
- As SWIFT Message Format: Midclear uses category 1, 2 and 5 SWIFT messaging format.
- For communicating with Euroclear, Midclear uses Euclid PC as a backup link with a smart card as a method of authentication.
- For communicating with Clearstream Midclear uses Creation Online as a backup link with a PKI (Public Key Infrastructure) as a method of authentication.

For cross-border operations, Midclear uses:

- Euclid PC as a backup link for communicating with Euroclear with a smart card as a method of authentication.
- Creation Online as a backup link for communicating with Clearstream with a PKI (Public Key Infrastructure) as a method of authentication.
- SWIFT is used as the primary communication method in communicating with Euroclear and Clearstream.

Midclear uses SWIFT as an internationally accepted communication standard. Category 1, 2 and 5 SWIFT messages are being used.

For cross-border operations, Midclear uses:

- Euclid PC as a backup link for communicating with Euroclear with a smart card as a method of authentication.
- Creation Online as a backup link for communicating with Clearstream with a PKI (Public Key Infrastructure) as a method of authentication.

- SWIFT is used as the primary communication method in communicating with Euroclear and Clearstream.

**Principle 23: Disclosure of rules, Key procedures, and market data**

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

**Key consideration 1: An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.**

Midclear's rules and procedures consist of the following:

- Local Market rules and procedures published on Midclear's website.
- SWIFT message syntax that participants should use when communicating instructions to Midclear is published on Midclear's website.
- Sell/Buyback procedure published on Midclear's website
- On Midclear's website under "Services"  
<http://midclear.com.lb/Services> there is a high-level description in plain language that explains Midclear's services. The "Services" are comprised of the following parts:
  - o Part I - Clearing and Settlement.  
<http://midclear.com.lb/Services/ClearingAndSettlement>
  - o Part II - Custody.  
<http://midclear.com.lb/Services/Custody>
  - o Part III- Registrar.  
<http://midclear.com.lb/Services/Registrar>
  - o Part IV – Administration of Securities.  
<http://midclear.com.lb/Services/AdministrationOfSecurities>
  - o Part V – Administration of Mutual Funds.  
<http://midclear.com.lb/Services/AdministrationOfMutualFunds>
  - o Part VI – National Numbering Agency.  
<http://midclear.com.lb/Services/NNA>

Midclear's rules and procedures are clear and comprehensive since the number of support queries that Midclear's participants ask has been very minimal.

In case of SWIFT failure Midclear's members can revert to sending their instructions via "Midclear Online" platform which is currently under testing and soon to be launched live; or revert back to the hardcopy format.

In case of "Midclear Online" failure and for the order allocation service, Midclear's members can send the allocation information via password protected attachments to emails or password protected USB's, CD's or even hardcopy duly signed.

**Key consideration 2: An FMI should disclose clear descriptions of the system's design and operations, as well as the FMI's and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.**

The system's design and operations are documented under "System Specifications" and "System Documentations"

The system's design and operations are only disclosed to the Chairman who in turn must obtain the approval of the board before any purchase or implementation.

Midclear discloses the degree of discretion it can exercise over key decisions that directly affect the operation of the system to the chairman who in turn discloses it to the Board of Directors.

Concerning rights and obligations, these are provided in the rules and regulations that are published and distributed to each participant.

**Key consideration 3: An FMI should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.**

Midclear is facilitating its participants' understanding of its rules, procedures and the risks associating with participating by workshops and by allowing them to test its new systems.

Minimal support questions are an evidence of Midclear's participants understanding of its rules, procedures and the risk they face from participating in Midclear.

In the event that any participant of Midclear demonstrates a lack of understanding of its rules, procedure or the risks of participation; different remedial actions are taken:

- Contact the member and try to solve the problem via a phone call.
- Inform the Chairman and the Board if the problem still stands and immediate training is initiated for that particular member.

**Key consideration 4: An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.**

Custody and services fees are disclosed over Midclear's website. <http://midclear.com.lb/About/Fees>. Discounts are made available on a case by case basis on commercial grounds and never disclosed.

Any changes to services and fees are being published on Midclear's website. <http://midclear.com.lb/About/Fees>

A detailed description of Midclear services and fees is made available on Midclear's website. <http://midclear.com.lb/About/Fees>

A comparison across similar FMIs is irrelevant since Midclear is the only CSD in Lebanon.

**Key consideration 5: An FMI should complete regularly and disclose publicly responses to the CPSS-IOSCO disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.**

Midclear discloses on its website on a monthly basis, statistics about its operations. [http://midclear.com.lb/Files/NewsAndPublications/Publications/Statistics/Statistics csmf.pdf](http://midclear.com.lb/Files/NewsAndPublications/Publications/Statistics/Statistics%20csmf.pdf)  
[http://midclear.com.lb/Files/NewsAndPublications/Publications/Statistics/Statistics cs.pdf](http://midclear.com.lb/Files/NewsAndPublications/Publications/Statistics/Statistics%20cs.pdf)

Midclear's audited financial statements are disclosed to the public via Midclear's website <http://midclear.com.lb/ewsAndPublications/AnnualReports> in addition to the questionnaire of the WFC. <http://midclear.com.lb/NewsAndPublications/questionnaires>

**Principle 24: Disclosure of market data by trade repositories**

A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

Not applicable for Midclear.