



مركز إيداع الأوراق المالية
Securities Depository Center

Principles for Financial Market Infrastructures (PFMI)
Disclosure
Securities Depository Center of Jordan

January, 2024



Responding Institution:

Securities Depository Center (SDC)

Jurisdiction:

Jordan

Authority Regulating the FMI:

Jordan Securities Commission (JSC)

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This disclosure can also be found at www.sdc.com.jo.

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Abbreviations

AMEDA: Africa & Middle East Depositories Association

ANNA: Association of National Numbering Agencies

ASE: Amman Stock Exchange

BIS: Bank for International Settlement

CBJ: Central Bank of Jordan

CEO: Chief Executive Officer

CPMI: Committee on Payments and Market Infrastructures

CPSS: Committee on Payment and Settlement Systems

DvP: Delivery versus Payment

FEAS: Federation of Euro-Asian Stock Exchange

FMI: Financial Market Infrastructure

IOSCO: International Organisation of Securities Commissions

JSC: Jordan Securities Commission

PFMI: Principles for Financial Market Infrastructures

RTGS: Real-Time Gross Settlement

SDC: Securities Depository Center

SGF: Settlement Guarantee Fund

SL: Securities Law

About the SDC

The Securities Depository Center of Jordan (SDC) is a public utility institution established in the Hashemite Kingdom of Jordan by virtue of the Securities Law. The SDC was established and commenced operation in May 1999 and it is the only entity in Jordan that is legally empowered to oversee the registration of securities, deposit of securities, transfer of ownership, safekeeping of securities and clearing and settlement of securities transactions. The SDC is subject to monitoring and supervision by the Jordan Securities Commission (JSC).

The SDC's governance structure consists of a five member board of directors and a full time Chief Executive Officer. Two of the board members are elected by the general assembly of the SDC representing SDC members, whilst three of the board members are being appointed by the JSC.

The SDC's ability to perform its tasks, accomplish new projects, and meet market demand and new developments comes from the SDC's electronic system, SCORPIO® (Securities Central Operation Registry Processing & Information Online). This is an SDC-designed system that allows it to undertake technical, strategic, and administrative initiatives to build and strengthen its infrastructure, implement and achieve its tasks and responsibilities.

The SDC has been recognized by the Association of National Numbering Agencies (ANNA) and the JSC as the sole numbering agency in Jordan for the assignment of codes adopted by ANNA regarding the financial instrument includes International Security Identification Numbers (ISIN), Classification of Financial Instruments (CFI), and Financial Instrument Short Name (FISN). All securities registered at the SDC are numbered according to each code numbering scheme.

The SDC is a member in the International Federations which are ANNA, AMEDA, and FEAS.

About the Assessment

CPMI (name changed in 2014, before that, it was CPSS) and IOSCO issued the document “Principles for Financial Infrastructures” which are the International standards for different financial market infrastructures (FMIs). These FMIs are (PS–Payment System), (CSD-Central Securities Depository), (SSS-Securities Settlement System), (CCP–Central Counter Party), and (TR–Trade Repository).

They also issued the second document which is “Disclosure Framework & Assessment Methodology”. Both documents are complementing each other.

This assessment aims to compare the SDC’s practices and procedures against the International standards.

The table shows the status of the principles in term of applicability

Principles	Status
Principle 1 – Legal basis	Applicable
Principle 2 – Governance	Applicable
Principle 3 – Framework for Comprehensive Management of Risks	Applicable
Principle 4 – Credit Risk	Applicable
Principle 5 – Collateral	Applicable
Principle 6 – Margin	Not Applicable
Principle 7 – Liquidity Risk	Applicable
Principle 8 – Settlement Finality	Applicable
Principle 9 – Money Settlements	Applicable
Principle 10 – Physical Deliveries	Not Applicable
Principle 11 – Central Securities Depositories	Applicable
Principle 12 – Exchange-of-value Settlement System	Not Applicable
Principle 13 – Participant-default Rules and Procedures	Applicable
Principle 14 – Segregation and Portability	Not Applicable
Principle 15 – General Business Risk	Applicable
Principle 16 – Custody and Investment Risks	Applicable
Principle 17 – Operational Risk	Applicable
Principle 18 – Access and Participation Requirements	Applicable
Principle 19 – Tiered Participation Arrangements	Not Applicable
Principle 20 – FMI Links	Not Applicable
Principle 21 – Efficiency and Effectiveness	Applicable
Principle 22 – Communication Procedures and Standards	Applicable
Principle 23 – Disclosure of Rules, Key procedures and Market Data	Applicable
Principle 24 – Disclosure of Market Data by Trade Repositories	Not Applicable

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.

(Applicable FMIs: PS, CSD, SSS, CCP, TR)

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.

1.1.1 What are the material aspects of the FMI's activities that require a high degree of legal certainty (for example, rights and interests in financial instruments; settlement finality; netting; interoperability; immobilization and dematerialization of securities; arrangements for DvP, PvP or DvD; collateral arrangements (including margin arrangements); and default procedures)?

All SDC's business and operations based on reliable legal framework represented by Securities Law (SL) which provides the SDC with well-founded, clear, transparent, and enforceable legal basis.

For example, Article (112) of SL states that the securities shall enjoy the following privileges:

- A. The finality and conclusiveness of securities trades in Financial Markets.**
- B. Ownership rights and due prices in accordance with the Center's accounts.**
- C. Irrevocability of the final settlement of trading contracts on the Financial Market.**

The SL (Article 74) defines the SDC as a non-profit public utility entity with a legal personality, administrative and financial autonomy.

The SL (Article 75/A) shows the SDC performs the following functions:

- 1. Registration, safekeeping, and transferring of ownership of securities.**
- 2. Depositing securities.**
- 3. Clearing and settlement of securities.**

The SDC's by laws and instructions are clear and has to obtain the approval from the Jordan Securities Commission (JSC) before becoming effective.

The SL (Article 81) specifies the most prominent topics that are regulated by the SDC instructions and by-laws.

1.1.2 What are the relevant jurisdictions for each material aspect of the FMI's activities?

The jurisdiction for SDC's operations is Jordan.

1.1.3 How does the FMI ensure that its legal basis (that is, the legal framework and the FMI's rules, procedures and contracts) provides a high degree of legal certainty for each material aspect of the FMI's activities in all relevant jurisdictions?

- a) For an FMI that is a CSD, how does the CSD ensure that its legal basis supports the immobilisation or dematerialisation of securities and the transfer of securities by book entry?

Paragraphs (B), (C), (D) and (E) of the (Article 79) of the SL indicated the following:

- b) The certificates of ownership of securities deposited at the Center shall be cancelled according to the instructions issued by the Center.**
 - c) Registration and transfer of ownership of securities traded on the Financial Market and the price settlements of such securities between Brokers shall be via book- entries in the Center's records.**
 - d) The Center may accept electronic data from its members and from the Financial Market in accordance with its issued by-laws and instructions.**
 - e) Unless otherwise proven, the entry records and the accounts maintained by the Center, whether in writing or electronically, as well as any document issued by the Center, shall constitute prima facie legal evidence of ownership, registration, transfer of ownership and settlement of the securities, at the price and on the date stated in those records, accounts or documents. It is worth mentioning that the electronic system of the SDC safe-keep the ownership of securities and make all its operations electronically.**
- b) For an FMI that is a CCP, how does the CCP ensure that it to act as a CCP, including the legal basis for novation, open offer or other similar legal device? Does the CCP state whether novation, open offer or other similar legal device can be revoked or modified? If yes, in which circumstances?

Not applicable.

- c) For an FMI that is a TR, how does the TR ensure that its legal basis protects the records it maintains? How does the legal basis define the rights of relevant stakeholders with respect to access, confidentiality and disclosure of data?

Not applicable.

- d) For an FMI that has a netting arrangement, how does the FMI ensure that its legal basis supports the enforceability of that arrangement?

The CSD is the body that is entitled by the Securities Law to conduct the process of clearing and settlement of securities.

The SL (Article 81) states that the SDC's by-laws and instructions includes procedures for registration of securities, transfer of their ownership, and clearance and settlement of securities, specification of the rights and obligations of the parties involved in the securities clearing, settlement and ownership transfer processes, time of the vesting of rights of creditors of the parties to securities trades, information that are considered confidential, information to be disclosed, and standards of professional conduct applicable to the members and SDC's management bodies and employees.

The SL (Article 79/I) states the settlement of the trading contracts of securities deposited in the Center shall be on the basis of Delivery-Versus-Payment

- e) Where settlement finality occurs in an FMI, how does the FMI ensure that its legal basis supports the finality of transactions, including those of an insolvent participant? Does the legal basis for the external settlement mechanisms the FMI uses, such as funds transfer or securities transfer systems, also support this finality?

The SL (Article 112) states the securities shall enjoy the following privileges:

1. The finality and conclusiveness of securities trades in Financial Markets.
2. Ownership rights and due prices in accordance with the Center's accounts.
3. Irrevocability of the final settlement of trading contracts on the Financial Market.

Acknowledging the importance of the integration of operations between Capital Market institutions to enhance the procedures of control and data accuracy in the trading process, the SDC-ASE tight coupling was implemented to improve the technical environment of institutions of the Capital Market. The procedures of risk management is conducted by exchanging information between ASE and SDC and direct verification of selling orders that are entered to the system and check the availability of sufficient balance of securities at the seller account before passing the order to the system.

Therefore, this system designed to fulfill the broker (trading member) cash obligations resulted from his trading on settlement day (T+2) by paying collaterals to the SDC which are liquidity reserve on (T+1), and the amounts due to the Settlement Account on (T+2).

The Settlement Guarantee Fund (SGF) has a legal personality with financial autonomy and is managed by the SDC Board of Directors and the chief executive officer. The Fund has many procedures to protect the participants from loss, to assure the smooth functioning of the market, and to maintain the confidence of investors by applying the measures of buy-in & sell-out. All of that is for the purpose to ensure the finality of the settlement and the process of DvP.

Its members include financial brokers and custodian and any other entity specified in the Fund's by-laws. The Internal By-Law of the Settlement Guarantee Fund became effective as of 31/12/2004 where the Settlement Guarantee Fund is considered the legal and factual successor of the Financial Brokers' Guarantee Fund.

Its objectives:

1. Covering the cash deficit of Fund members in connection with their purchases of securities;
2. Covering the deficits in the securities account of Fund members in connection with sales of securities on the Stock Exchange.

The SL (Article 88) defines the SGF and clarifies the rights and obligations to be administered by the SDC.

The SL (Article 84/A) states if a Financial Broker, Dealer or SDC member is subject to a bankruptcy, liquidation or sequestration order, the SDC, before the commencement of the bankruptcy, liquidation, or sequestration proceedings pursuant to the legislation in force, shall take all appropriate measures to fulfill the settlement of any pending trading contracts to which such member was a party before issuance of that order. Such trading contracts, after the settlement thereof, shall be considered valid against third parties.

Key consideration 2

An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.

1.2.1 How has the FMI demonstrated that its rules, procedures and contracts are clear and understandable?

All the rules and instructions are published on the website in Arabic and English for public. The SDC notifies all members via memos about any amendments on its procedures and rules.

The SDC by-laws and instructions are clear and consistent with the SL. The SDC also consults with its members prior enforcing amendments.

It is worth mentioning that the SDC's procedures and all main tasks are clarified and published separately on the website.

1.2.2 How does the FMI ensure that its rules, procedures and contracts are consistent with relevant laws and regulations (for example, through legal opinions or analyses)? Have any inconsistencies been identified and remedied? Are the FMI's rules, procedures and contracts reviewed or assessed by external authorities or entities?

The review and legal analysis are conducted internally by the SDC, and in consultation with the external legal advisor, all SDC's bylaws and regulations are reviewed and approved by the Market Regulator (JSC- Jordan Securities Commission).

1.2.3 Do the FMI's rules, procedures and contracts have to be approved before coming into effect? If so, by whom and how?

Yes, by the Capital Market Regulator (JSC).

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.

1.3.1 How does the FMI articulate the legal basis for its activities to relevant authorities, participants and, where relevant, participants' customers?

The SDC notifies all relevant authorities and participants with the legislation and procedures through memos and any other communication channels such as written letters that be supported by the provisions of SL and other legislations. In addition, the SDC has on its website a "Legislations" section that includes all relevant regulations applicable to the SDC's operation.

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.

1.4.1 How does the FMI achieve a high level of confidence that the rules, procedures and contracts related to its operations are enforceable in all relevant jurisdictions identified in key consideration 1 (for example, through legal opinions and analyses)?

The relevant jurisdiction for the SDC's operations is Jordan and to ensure a high level of confidence and increase the enforceability of the legal basis, all the SDC's rules and procedures have prior approval from the JSC.

The SL is specifically applied to all what is regulated the dealing in securities issued and traded in the Jordanian Capital Market.

Anybody is not comply with all legislations, is considered in breach and the SDC shall take all the necessary measures.

1.4.2 How does the FMI achieve a high degree of certainty that its rules, procedures and contracts will not be voided, reversed or subject to stays? Are there any circumstances in which an FMI's actions under its

rules, procedures or contracts could be voided, reversed or subject to stays? If so, what are those circumstances?

Dealing in securities is governed by the SL and the legislations that are issued pursuant to it. Under the law, securities were given many special features that would enhance the reliability and stability of dealing in securities, including the irrevocability of trading contracts .Therefore; they are not allowed to cancel the final settlements of concluded trading contracts. The SDC's records as evidence of the ownership of the securities and any actions taken on them

The SL also increases the level of certainty and enforceable which includes more details about the SDC's operations.

1.4.3 Has a court in any relevant jurisdiction ever held any of the FMI's relevant activities or arrangements under its rules and procedures to be unenforceable?

Such case never happened; the courts refer to the SL and the SDC bylaws and instructions.

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.

1.5.1 If the FMI is conducting business in multiple jurisdictions, how does the FMI identify and analyze any potential conflict-of-laws issues? When uncertainty exists regarding the enforceability of an FMI's choice of law in relevant jurisdictions, has the FMI obtained an independent legal analysis of potential conflict-of-laws issues? What potential conflict of laws issues has the FMI identified and analyzed? How has the FMI addressed any potential conflict-of- laws issues?

Not applicable.

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.

(Applicable FMIs: PS, CSD, SSS, CCP, TR)

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.

2.1.1 What are the FMI's objectives, and are they clearly identified? How does the FMI assess its performance in meeting its objectives?

The SDC aims to achieve the following objectives which are clearly defined in (Article 4) of the by-law of the Securities Depository Center:

- 1. Enhance the confidence of investors in securities and enable them to follow-up their investments easily by establishing a central registry to safe-keep the ownership of securities.**
- 2. Reduce risks related to settlement of trading transactions executed through the market by implementing by-laws, instructions and procedures that are fair, fast and safe.**

The performance in meeting these objectives is assessed through:

1. The strategic plan.
2. (Article 19/A/2) of the internal by-law of the Securities Depository Center states that one of the responsibilities of the SDC board to monitor the operations of the SDC to achieve its objectives.
3. Reflecting the objectives through the procedures and activities.

2.1.2 How do the FMI's objectives place a high priority on safety and efficiency? How do the FMI's objectives explicitly support financial stability and other relevant public interest considerations?

The SDC places a high priority to the lawful operations to achieve the public interest and support financial stability.

The SDC's mission and vision aim to develop securities and post trade services which contribute in enhancing safe, stable and attractive environment for investment by applying the international standards and best practices.

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.

2.2.1 What are the governance arrangements under which the FMI's board of directors (or equivalent) and management operate? What are the lines of responsibility and accountability within the FMI? How and where are these arrangements documented?

The SL (Article 76/A) states that the SDC shall be managed by a Board of Directors and a fulltime chief executive officer and defines the authorities and responsibilities of the General Assembly, Board of Directors, and the executive management. The SL and the SDC legislations specify their responsibilities.

The organizational structure shows clear lines of responsibility of the Board of Directors, CEO his/her assistance and the department. In addition, the legislations also which are published on the SDC website also specified the communications lines.

(Article 23/A) of the Internal By-Law of the SDC indicated that the CEO is accountable to the SDC's Board of Directors for administrative, financial and technical affairs of the SDC.

The SDC as a whole is accountable to its General Assembly which consists of members that have paid the SDC fees .The Membership in the SDC is mandatory for public shareholding companies, legal persons licensed as financial brokers or dealers, custodians, and other entity determined by the Board (Article 7) of the Internal By-Law of the SDC.

With regard to the accountability procedures, they are documented in the provisions of the SDC the internal by-law of the SDC. The SDC also subjects to the JSC monitoring and supervision according to the (Article 3/D).

2.2.2 For central bank-operated systems, how do governance arrangements address any possible or perceived conflicts of interest? To what extent do governance arrangements allow for a separation of the operator and oversight functions?

Not applicable.

2.2.3 How does the FMI provide accountability to owners, participants and other relevant stakeholders?

The SDC is the public utility institution carries out executive tasks in the form of jobs, operations and services that concern all securities dealers, especially the owners of securities and members of the SDC and licensees. The SDC subjects to the Jordan Securities Commission (JSC)'s monitoring and supervision. Therefore, the SDC comply with JSC's legislative, regulatory and technical tools to achieve its objectives in ensuring and safe-keeping the securities ownership and reducing the risks of trading operations in the market.

2.2.4 How are the governance arrangements disclosed to owners, relevant authorities, participants and, at a more general level, the public?

The governance arrangements are published on the SDC's website.

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.

2.3.1 What are the roles and responsibilities of the FMI's board of directors (or equivalent), and are they clearly specified?

The roles and responsibilities of the board of directors are clearly specified in (Article 19) of the internal by-Law of the Securities Depository Center for 2017 which are:

The Board of Directors shall assume the following authorities and responsibilities:

- A- Establish the Center's general policy to guarantee the management and development of its operations and activities including the following:**
 - 1. Adopt all the necessary measures to observe the implementation of the Law in relation to the Center's operations, the by-laws, instructions and relevant resolutions issued pursuant thereto.**
 - 2. Monitor the operations of the Center to achieve its objectives.**
 - 3. Approve the Center's budget and supervise its execution.**
 - 4. Prepare and present the balance sheet and financial statements to the General Assembly.**
 - 5. Establish rules regulating the assistance of the necessary experts for the due operation of the Center.**
 - 6. Establish the training policy for the Center's employees.**
 - 7. Appoint an external auditor to audit the Center's accounts and determine his fees.**
 - 8. Appoint a lawyer or more for the Center and determine his fees.**
 - 9. Borrow the necessary funds to manage the Center and with the approval of the Board.**

- B- Present the Center's internal by-laws and instructions related to dealing in securities to the Board for approval, before being enforced, including those related to the following:**
 - 1. The procedures for registration of securities transfer of their ownership, and clearance and settlement of the trading contracts related thereto.**
 - 2. Specification of the rights and obligations of the parties involved in the securities clearing, settlement and ownership transfer processes.**
 - 3. The time of the vesting of rights of creditors of the parties to securities trades, including rights with respect to both the cash or cash equivalents and the securities involved, as a result of the process of sale, purchase or ownership transfer.**
 - 4. Information, data, and records that are considered confidential and the persons authorized to have access thereto, by virtue of their job.**

5. Information, data and records that the Center must disclose and the information, data and records that are accessible to the public for viewing and copying.
6. Standards of professional conduct applicable to the members of the Center, members of the Board of Directors, to the Chief Executive Officer and the Center's employees.
7. The administrative organization, the organizational structure and the internal by-law of the Centre's proceeds.
8. Determination of the remuneration for the members of the Board of Directors.

C- Issue the necessary internal by-laws and instructions to manage the Center's administrative and financial affairs upon the CEO's recommendation in accordance with the above –mentioned paragraph (B) of this article and without conflict with the legislations in force, including the following:

1. Determination of those authorized to sign the accounts of the Center.
2. Financial, supplies, and the employees' by-laws.
3. Eligibility criteria for granting financial incentives and benefits for employees.
4. Instructions for employee housing and saving funds.

2.3.2 What are the board's procedures for its functioning, including procedures to identify, address and manage member conflicts of interest? How these procedures are documented, and to whom are they disclosed? How frequently are they reviewed?

The internal by-Law of the Securities Depository Center contains provisions that regulate the board composition and management.

(Article 13):

Compositions of the SDC's governance structure. It consists of a five member board of directors and a full time Chief Executive Officer of the SDC. Two members of the Board of Directors are elected by the General Assembly of the SDC and three members are appointed by the JSC. The Board serves for a term of three years (No member shall be elected or appointed for more than two consecutive terms.).

(Article 15):

Procedures of nominations for the membership of the Board of Directors.

Article (16):

Roles and responsibility the chairman and deputy chairman.

Article (17&18):

Termination and replacement of members the Board of Directors.

(Article 20):

Procedures of conflict of interest. This provisions require the member to disclose their holdings and any changes of this holding, disclose any interests that concerns them in relation to any subject presented to the Board, in such a case the concerned member must leave the session and must not participate in the voting when the resolution is taken. They are restricted to disclose any confidential information, and must not exploit any information obtained by virtue of their membership or representation in the Board of Directors for their own benefit or for the benefit of any other party.

The SDC continuously reviews its enforced legislations to ensure these legislations keep pace with market developments. These legislations obtain prior JSC approval.

2.3.3 Describe the board committees that have been established to facilitate the functioning of the board. What are the roles, responsibilities and composition of such committees?

The SDC has an established audit committee which is a permanent committee that consists of board members. This committee is an oversight body to supervise and control of accounting and auditing affairs at the SDC, and to discuss the annual plan of the Internal Audit Department before the approval by the Board of Directors.

This committee facilitates the functioning of the Board.

2.3.4 What are the procedures established to review the performance of the board as a whole and the performance of the individual board members?

No formal procedures to review the performance of the board as a whole and the performance of the individual board members. However, the SDC legislations specify clearly the roles and responsibilities of the Board. Moreover, the board's decisions are subject to the surveillance of the JSC (Article 20/D).

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).

2.4.1 To what extent does the FMI's board have the appropriate skills and incentives to fulfil its multiple roles? How does the FMI ensure that this is the case?

The SDC is governed by a five member board of directors and a full time chief executive officer. Two members of the board of directors are elected by the SDC general assembly and represented the SDC members of public shareholding companies and brokers/custodians and three are appointed by the Jordan Securities Commission (JSC) from the private sector with experience in legal, financial and economic fields. The term of the Board of Directors is three years. No member shall be appointed or elected for more than two consecutive terms (Article 13) of the Internal by-law of the SDC.

The (Article 14) of the Internal by-law of the SDC defines the conditions that the member of the Board must meet the following conditions:

- A- A chairman, a member of the board of directors, or a chairman or a board member of the management committee or a general manager or a deputy general manager or an assistant general manager at the member.**
- B- Enjoy full legal capacity.**
- C- Be at least thirty years old.**
- D- Have the first university degree at least.**
- E- Have not been convicted of any crime, misdemeanor, punitive penalty involving moral or trust, or his service in any post has been ended or terminated for such reasons. The Board may take all necessary measures to ensure the fulfillment of this condition and its resolution in this regard is considered final.**

According to the (Article 19/B/8) of the Internal by-law of the SDC, one of the SDC Board of Directors responsibilities is to present the SDC's internal by-laws and instructions related to dealing in securities to the Board for approval, before being enforced, including those related to determination of the remuneration for the members of the Board of Directors.

2.4.2 What incentives does the FMI provide to board members so that it can attract and retain members of the board with appropriate skills? How do these incentives reflect the long-term achievement of the FMI's objectives?

The structure of the board is based on the decisions of the SDC general assembly meeting in which two members are elected. Consequently, the board and performing its assigned tasks and authorities don't depend on the incentives.

2.4.3 Does the board include non-executive or independent board members? If so, how many?

All board members are non-executive.

2.4.4 If the board includes independent board members, how does the FMI define an independent board member? Does the FMI disclose which board member(s) it regards as independent?

As mentioned in Q. 2.4.3 all members of the Board of Directors are non-executives.

As for the independency member, please note that the concept of an independent member is based on the application of governance instructions that target companies only, and the SDC, as a public institution, is not one of the entities subject to these instructions, so the formation of the board of directors either elected or appointed do not have any relationship with the SDC except the relationship of membership of the Board.

The concept of independency of the Board does not mentioned clearly in the laws. However; they exercise objective and an independent judgment.

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.

2.5.1 What are the roles and responsibilities of management, and are they clearly specified?

The roles and responsibilities of management are clearly specified in (Article 23) of the internal by-Law of the Securities Depository Center for 2017 which are:

- A. The CEO pursues all the administrative, financial and technical affairs of the Center. He is responsible before the Board of Directors thereof as well as of the following**
- 1. Follow up the implementation of the Law, by-laws, instructions and resolutions issued pursuant thereto.**
 - 2. Execute the Board of Director's resolutions.**
 - 3. Sign all the relevant documents and correspondences necessary for the Center's operations in accordance with the policies determined by the Board of Directors.**
 - 4. Appointing employees at the Center pursuant to the provisions of the Employees' By-Law and the resolutions of the Board of Directors.**
 - 5. Follow up the due operations of the Center and the performance of its employees and administrative body.**
 - 6. Prepare the draft annual budget and present it to the Board of Directors before the 30th of November of each year.**
 - 7. Present the quarterly financial statements to the Board of Directors.**
 - 8. Present the bi-annual financial statements audited by the auditor to the Board of Directors.**
 - 9. Present the balance sheet and the financial statements for the previous fiscal year audited by the auditor to the Board of Directors before the end of February of the following year.**
 - 10. Pursue all the powers and further activities assigned to him by the Board of Directors.**

11. Provide the Commission with copies of the resolutions of the General Assembly and the Board of Directors.
- B. The Chief Executive Officer may delegate any of his powers to a high ranking employee at the Center with the approval of the Board of Directors. The delegation must be written and specific.
 - C. The Board of Directors shall appoint a deputy for the CEO to manage the Center' affairs in case the CEO is absent or his position becomes vacant.

2.5.2 How are the roles and objectives of management set and evaluated?

The SDC management (CEO) is responsible for all the administrative, financial and/ technical affairs before the SDC board that include his/her responsibility for the implementation of the Law, by-laws, instructions and resolutions.

2.5.3 To what extent does the FMI's management have the appropriate experience, mix of skills and the integrity necessary for the operation and risk management of the FMI? How does the FMI ensure that this is the case?

The process of appointing the CEO is organized by the securities law and by laws through which the board, under the approval of board of commissions, choose the suitable person with the appropriate qualifications and conditions to occupy this vacancy to execute his roles and responsibilities.

According (Article 22) of the Internal by-Law of the Securities Depository Center, the CEO shall be chosen from among experienced and efficient individuals in the financial and economic fields. He must:

- A. be Jordanian
- B. enjoy full legal capacity.
- C. have an experience of at least fifteen years in the economic and financial fields.
- D. have obtained his first university degree at least.
- E. have not been convicted of any crime, misdemeanor or a punitive penalty involving moral or trust or his service in any post has terminated for such reasons.

The management of the SDC demonstrated in the organizational structure that shows the CEO and Deputy CEO, in addition to the CEO assistance for technical affairs and CEO assistance for administrative affairs.

2.5.4 What is the process to remove management if necessary?

Subsequent to the approval of the JSC, the Board of Directors shall appoint a full time CEO by virtue of a term contract which states his remuneration, benefits and other financial rights. The Board of Directors may end the services of the Chief Executive Officer in the same way for appointment (Article 21) of the Internal by-Law of the Securities Depository Center.

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.

2.6.1 What is the risk management framework that has been established by the board? How is it documented?

The SDC has no formal risk management framework; however, the SDC has many measures protect members from risks to assure the smooth functioning of the market:

- 1. Settlement cap for market participants commensurate with posted collaterals**
- 2. Settlement bank.**
- 3. Buy-in & sell-out measures.**
- 4. Immediate suspension of trading for defaulting brokers.**
- 5. SDC/ASE Tight Coupled Environment.**
- 6. Operationally complaint with the recommendations of the International standards and best practices.**
- 7. Setting up Recovery Disaster and Business Continuity Sites.**

The SDC will introduce a new department in its structure. This department is dedicated for risk management and applying international standards in this field.

2.6.2 How does this framework address the FMI's risk tolerance policy, assign responsibilities and accountability for risk decisions (such as limits on risk exposures), and address decision-making in crises and emergencies?

Please refer to Q.2.6.1.

The SDC also manages the settlement risk. The SDC adopted the model that calculates the level of risks caused by each element. For example, the SDC has the Settlement Guarantee Fund. The contributions of the financial brokers of the Fund are divided into cash contributions and bank guarantees. The contributions are calculated based on specific formulas and are periodically re-calculated according to the internal by-law of the Settlement Guarantee Fund.

2.6.3 What is the process for determining, endorsing and reviewing the risk management framework?

Please refer to Q.2.6.1.

2.6.4 What are the roles, responsibilities, authority, reporting lines and resources of the risk management and audit functions?

There is no specific department or committee that is specified to perform risk management tasks. However, the board itself considers risk management matters as the need arises.

According to the SDC's organizational structure, the internal audit department which is link directly to the SDC's Board of Directors.

Also the audit committee link directly to the SDC's Board and consists of board members.

2.6.5 How does the board ensure that there is adequate governance surrounding the adoption and use of risk management models? How are these models and the related methodologies validated?

Please refer to Q.2.6.4.

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.

2.7.1 How does the FMI identify and take account of the interests of the FMI's participants and other relevant stakeholders in its decision-making in relation to its design, rules, overall strategy and major decisions?

The SDC's focus of attention is on investors and all stakeholders interests. The SDC takes into consideration the opinions of its stakeholders through studying these opinions in light of the applicable legislations.

Moreover, the board, in their meeting, can provide their views in related of the SDC's rules, overall strategy and major decisions affecting investors and all stakeholders' interests.

2.7.2 How does the board consider the views of direct and indirect participants and other relevant stakeholders on these decisions; for example, are participants included on the risk management committee, on user committees such as a default management group or through a public consultation? How are conflicts of interest between stakeholders and the FMI identified, and how are they addressed?

Please refer to Q.2.7.2.

It is worth mentioning that the SDC does not have any formal body such as the risk management committee, on user committees, etc. through which the stakeholders could express their thoughts. However, the SDC will review its structure to introduce new department(s) which is (are) dedicated for these matters.

2.7.3 To what extent does the FMI disclose major decisions made by the board to relevant stakeholders and, where appropriate, the public?

The decision made by the board is confidential. On the other hand, the SDC discloses the content of decisions that are related to the procedures applied on members and other stakeholders in general. The SDC also publishes changes in by-law and instructions on its website.

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.

(Applicable FMIs: PS, CSD, SSS, CCP, TR)

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.

3.1.1 What types of risk arise in or are borne by the FMI?

The SDC is exposed to various risks related to the type of its activity and the nature of SDC on the capital market. Among risks, there are business and operational risks which also include legal, IT, financial risks.

3.1.2 What are the FMI's policies, procedures and controls to help identify, measure, monitor and manage the risks that arise in or are borne by the FMI?

The SDC has internal by law of SGF, instructions of the registration, deposit and settlement of securities and other legislations and procedures to manage settlement risk.

There is a committee that has temporary tasks to identify/assess/measure/review/follow up the risks based on SDC strategic plan and international standards.

This committee in cooperation with the institutional developments section identifies risks, puts priority, and weighs them.

The SDC internal audit makes sure that the actions and measures taken by the SDC are in conformity with the laws, regulations and legislations in force.

The SDC will introduce a new unit dedicated for risk management and applying international standards in this field.

3.1.3 What risk management systems are used by the FMI to help identify, measure, monitor and manage its range of risks?

The SDC identify and measure risks through Risk-based Scorecard by the institutional developments section.

The SDC also monitor and manage risks by the temporary committee of planning, coordination, and follow up in addition to the CEO and internal audit reports.

Also, we have not dedicated system for risk management, however, an electronic system to store, manage and monitor transactions for all members.

The SDC developed its electronic systems provided to members. Therefore, they can view all balances on a daily basis, and therefore, reconcile with their records at any time.

On the same context, the SDC has procedures to save data and retrieval them.

3.1.4 How do these systems provide the capacity to aggregate exposures across the FMI and, where appropriate, other relevant parties, such as the FMI's participants and their customers?

Please refer to Q.3.1.3.

3.1.5 What is the process for developing, approving and maintaining risk management policies, procedures and systems?

Within its plan to develop the risk management policies, the SDC will dedicate a body within the organizational structure to be responsible for putting the proper setting and Risk management plan, follow its implementation periodically and develop and maintain it in accordance with international standards and best practices in Risk management.

3.1.6 How does the FMI assess the effectiveness of risk management policies, procedures and systems?

Current assessment is through internal and external revision; however, this will become a role of for the new risk management unit.

Internal revision is done through the concerned departments and internal audit department.

External revision by international institutions and external auditor.

3.1.7 How frequently are the risk management policies, procedures and systems reviewed and updated by the FMI? How do these reviews take into account fluctuation in risk intensity, changing environments and market practices?

Periodically and whenever the need arises.

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.

3.2.1 What information does the FMI provide to its participants and, where relevant, their customers to enable them to manage and contain the risks they pose to the FMI?

SDC disclosed most of the information that is relevant in the context of operations and related risks on its website, intranet, and its bulletin.

The SDC also provides any member with data on request. These data enable members to manage risks and finally effect the SDC.

3.2.2 What incentives does the FMI provide for participants and, where relevant, their customers to monitor and manage the risks they pose to the FMI?

Failed settlement is one of the risks that participants could affect negatively to SDC main role and duties, Therefore, penalties to participants that fail to settle securities in a timely manner and for any violations of regulations.

3.2.3 How does the FMI design its policies and systems so that they are effective in allowing their participants and, where relevant, their customers to manage and contain their risks?

Through the emergency plan for specific critical operations, a comprehensive electronic system that enables participants to monitor their transactions throughout its life cycle, regulations, and punish them in case of violating these regulations.

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.

3.3.1 How does the FMI identify the material risks that it bears from and poses to other entities as a result of interdependencies? What material risks has the FMI identified?

The SDC oversee the following responsibilities:

- Registration of securities
- Deposit of securities
- Transfer of ownership and safekeeping of securities
- Clearance and settlement of securities transaction

Each function includes certain risks and gives each a priority.

Also there is a business continuity plan and a disaster recovery plan.

3.3.2 How are these risks measured and monitored? How frequently does the FMI review these risks?

Systems are subject to high reliability and uptime and monitoring standards.

There are strong systems and controls, monitoring through system performance.

Periodically reviewed and whenever the need arises.

3.3.3 What risk management tools are used by the FMI to address the risks arising from interdependencies with other entities?

No specific tools.

3.3.4 How does the FMI assess the effectiveness of these risk management tools? How does the FMI review the risk management tools it uses to address these risks? How frequently is this review conducted?

Please refer to Q.3.3.3.

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.

3.4.1 How does the FMI identify scenarios that may potentially prevent the FMI from providing its critical operations and services? What scenarios have been identified as a result of these processes?

Through the emergency plan for specific conditions.

3.4.2 How do these scenarios take into account both independent and related risks to which the FMI is exposed?

By setting-up the emergencies plans to encounter the possibility of occurrence such scenarios.

3.4.3 What plans does the FMI have for its recovery or orderly wind-down?

Business continuity and disaster recovery plans and emergency plan regarding financial settlements.

3.4.4 How does the FMI's key recovery or orderly wind-down strategies enable the FMI to continue to provide critical operations and services?

The SDC identifies the scenarios for possible risks and puts the needed solutions to ensure the continuity of business.

3.4.5 How are the plans for the FMI's recovery and orderly wind-down reviewed and updated? How frequently are the plans reviewed and updated?

Periodically and whenever the need arises by competent committees.

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.

(Applicable FMIs: PS, SSS, CCP)

Key consideration 1

An FMI should have established 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.

4.1.1 What is the FMI's framework for managing credit exposures, including current and potential future exposures, to its participants and arising from its payment, clearing and settlement processes?

The SDC identifies all parties participating in the Settlement processes that are:

- 1. Settlement Bank**
- 2. Brokers**
- 3. Custodians**

The above mentioned parties may impose on the SDC credit risks; however, the SDC continuously reduces these risks to a minimum by the following measures:

- 1. Settlement Bank: The Settlement Bank of the SDC is the Central Bank of Jordan (CBI) where the SDC has become a direct member for Real Time Gross Settlement System (RTGS-JO).**
- 2. Brokers and Custodians: A fund known as (The Settlement Guarantee Fund) establishes at the SDC, and have a legal personality with financial autonomy Article (88/A) of SL.**
- A. (Article 8) of the internal By-Law of the Settlement Guarantee Fund (SGF) identifies the contributions of brokers. These contributions:**
 - 1. A non- conditional bank guarantee in the phrasing accepted by the Fund's Board of Directors of the amount specified in accordance with this By-Law, payable upon request.**
 - 2. A Cash contribution in accordance with the provisions of this By-Law.**
- B. The Fund's Board of Directors may approve of the substitution of the bank guarantee referred to in Paragraph (A/1) of this Article with any other guarantee accepted by the Fund's Board of Directors and in accordance with the conditions specified by it.**
- C. The Fund's Board of Directors shall determine the Guarantees that the Custodians should provide the Center of for the benefit of the Fund.**

D. Members of the Fund shall deliver the Guarantees specified in this article upon the acceptance of their membership in the Center.

A. (Article 9) of the internal By-Law of the Settlement Guarantee Fund (SGF) stated that the bank guarantee that the Broker should provide shall be calculated on the basis of the average net amounts due to be paid by the Broker in favor of the settlement as a result of its securities trading transactions through the Market for a period of twelve months with a minimum of (50,000) fifty thousand Dinars in accordance with the following formula:

Amount of the bank guarantee (G)= $(A \times P \times S) \geq (50,000)$ Dinars.

Where A: is the daily average of the net amounts due to be paid by the Broker in favor of the settlement for twelve months;

P: is the percentage of days that the Broker had to pay amounts in favor of the settlement and is calculated by dividing the number of days that the broker had to pay amounts in favor of the settlement by the number of trading days within the period of twelve months.

S: is the settlement period.

B. The cash contribution that the Broker should pay to the Fund shall be calculated on the basis of the net amounts due to be paid by the Broker in favor of the settlement as a result of trading in securities through the Market for the last three months subject to the amount not being less than (25,000) twenty five thousand Dinars in accordance with the following formula:

The cash contribution amount = $(X \times Y \times S) - G \geq (25,000)$ Dinars.

Where X: is the daily average net amounts to be paid by the Broker in favor of the settlement for the last three months.

Y: is the percentage of days that the broker had to pay amounts for settlement for the last three months and is calculated by dividing the number of days in which the broker had to pay amounts in favor of the settlement by the number of trading days in that period.

S: is the period of settlement.

G: represents the amount of the bank guarantee calculated in accordance with the provision of Paragraph (A) of this Article.

C. The following trading contracts shall be excluded from the broker's securities trading transactions for the purposes of calculating the average net amounts to be paid by the broker in favor of the settlement referred to in paragraphs (A) and (B) of this article:

- The trading contracts referred to in Article (5) of this By-Law.
- The trading contracts related to custody accounts that the custodian agrees to settle according to the instructions issued by the Center.

D. The amount of the bank guarantee and the cash contribution shall be rounded up in increase to the approximate (1,000) one thousand Dinars.

E. The amounts referred to in Paragraph (B) of this Article shall be credited to the cash contribution account of the concerned Broker.

(Article 10)

- A-** The cash contribution amount for Brokers shall be re-calculated every three months at the end of March, June, September and December of each year.
- B-** If the cash contribution amount calculated in accordance with Paragraph (A) of this Article exceeded the amount of the Broker's cash contribution in the Fund, the Broker shall pay the amount that represents the difference within three business days from the date of receipt of the Center's claim to that effect; otherwise, the Center shall take the following measures:
 - 1.** Inform the Commission and notify the Market to suspend the Broker from trading.
 - 2.** Suspend the services provided by the Center to the concerned Broker.
- C-** If the cash contribution amount calculated in accordance with Paragraph (A) of this Article is less than the amount of the Broker's cash contribution in the Fund, the Fund shall reimburse the difference to the Broker, upon the Broker's request, within three business days.

(Article 12)

- A-** Notwithstanding the provision of Paragraph (D) of Article (9), the guarantees that the broker should submit upon the acceptance of his membership at the Center shall be as follows:
 - 1.** A bank guarantee of the amount that represents the average amount of the bank guarantees calculated for all of the members of the Fund.
 - 2.** A cash contribution of the amount that represents the average cash contributions calculated for all of the members of the Fund.
- B-**
 - 1.** The cash contribution for the new Broker shall be re-calculated on the occasion of the first calculation for cash contributions in accordance with this By-Law after three months from the beginning of his trading in Securities.
 - 2.** The bank guarantee for the new Broker shall be re-calculated on the occasion of the first calculation of the bank guarantees in accordance with this By-Law after twelve months from the beginning of his trading in Securities.

The SDC manages its credit exposures through a robust framework based on Securities law, the internal by-law of the Settlement Guarantee Fund and the instructions of the Registration, Deposit and Settlement of Securities.

These legislations indicate that if the Broker or the Custodian does not pay the amounts due to be paid to the Settlement Account on Settlement Day (T+2) by nine (9:00) am., the Broker or Custodian is considered in breach of its obligations and the Settlement Guarantee Fund shall substitute that Broker or Custodian to fulfill those obligations.

For Broker:

- A.** (Article 14) of the internal By-Law of the Settlement Guarantee Fund states that if the Broker does not pay the cash amounts due as a result of his trading in the Market at the Settlement Account within the period specified on Settlement date, then the Broker is considered in breach of its obligations and the Fund shall substitute that Broker to fulfill those obligations whereby the Chief Executive Officer shall undertake the following measures:
 - 1.** Transfer the amount that the Broker or Custodians did not pay from the Fund the Broker period specified on Settlement Account
 - 2.** Inform the Commission and notify the Market to suspend the Broker from trading.
 - 3.** Suspend the services provided by the Center to the concerned Broker.
 - 4.** Demand the concerned Broker to pay all the due cash amounts to the benefit of the Fund including the delay charges and any expenses or costs incurred by the Fund accordingly.

- B. If the amount that the Fund paid on behalf of the Broker in accordance with Paragraph (A) of this Article equals or is less than the cash contribution of the Broker in the Fund, the total amount shall be debited from that Broker's account in the Fund.
- C. If the amount that the Fund paid on behalf of the Broker in accordance with Paragraph (A) of this Article is less than the total value of the cash contribution and the bank guarantee jointly and is more than the cash contribution of that Broker in the Fund, the Fund shall take the following measures:
 - 1. Debit the entire cash contribution balance of the concerned Broker.
 - 2. Take all the necessary and immediate measures to liquidate the bank guarantee of the concerned Broker who defaulted on payment.
- D. If the amount that the Fund paid on behalf of the Broker in accordance with Paragraph (A) of this Article exceeded the total of the cash contribution and bank guarantee together, the Fund shall take the following measures:
 - 1. Debit the entire cash contribution balance of the concerned Broker.
 - 2. Take all the necessary and immediate measures to liquidate the bank guarantee of the concerned Broker.
 - 3. The Fund will possess the bought securities whose value has not been paid for with a percentage equaling 120% of the amount that exceeds the total of the Broker's cash contribution and the bank guarantee provided by it.
- E. The Center may impose a lien on the securities owned by concerned Broker for the benefit of the Fund.

For Custodian

- A. (Article 15) of this by-law states that if the Custodian does not pay the cash amounts due at the Settlement Account within the period specified on Settlement date, then the Custodian is considered in breach of its obligations and the Fund shall substitute that Custodian to fulfill those obligations whereby the Chief Executive Officer shall undertake the following measures:
 - 1. Transfer the amount that the Custodian did not pay from the Fund's account to the Settlement Account.
 - 2. Inform the Commission.
 - 3. Suspend the services provided by the Center to the concerned Custodian.
 - 4. Demand the concerned Custodian to pay all the due cash amounts to the benefit of the Fund including the delay charges and any expenses or costs incurred by the Fund accordingly.
- B. If the amount that the Fund paid on behalf of the Custodian in accordance with Paragraph (A) of this Article equals or is less than the value of the guarantee determined for that Custodian in the Fund, the total amount shall be debited from that Custodian's account in the Fund.
- C. If the amount that the Fund paid on behalf of the Custodian in accordance with Paragraph (A) of this Article exceeded the value of the guarantee determined for that Custodian in the Fund, the Fund shall take the following measures:
 - 1. Take the necessary measures to debit the entire amount representing the Guarantee of the concerned Custodian.
 - 2. The Fund will possess the bought securities whose value has not been paid for with a percentage equaling 120% of the amount that exceeds the total of the Custodian's guarantee in the Fund.
- D. The Center may impose a lien on the securities owned by concerned Custodian for the benefit of the Fund.

Also note that Settlement of traded securities is conducted through an electronic environment, and is governed by a legal framework and strict timings and collaterals management for guarantees to eliminate risks related to settlement, where no failure in the securities side is possible by order verification facility and although the cash side is not fully controlled, but there has been no failure trades since the depository overtook the settlement process. However, in case the transactions failed to be settled, they will be resolved through the Settlement Guarantee Fund through buy-in or sell-out process.

4.1.2 How frequently is the framework reviewed to reflect the changing environment, market practices and new products?

(Article 10/A) of the internal By-Law of the Settlement Guarantee Fund states that the cash contribution amount shall be re-calculated every three months at the end of March, June, September and December of each year.

In the same context, the bank guarantee amount shall be re-calculated once every twelve months for brokers that have been trading in securities for twelve months (Article 11/A).

(Article 13) of the internal bylaw of SDC states that upon the recommendation of the Chief Executive Officer, the Fund's Board of Directors, may:

- A. Change the formula or method of calculation of the cash contribution and the bank guarantee specified in this By-Law, with the approval of the Board.**
- B. Re- calculate the cash contribution amount and the bank guarantee amount referred to in this By-Law for any Broker at any time.**
- C. Change the formula or method of calculation of the cash contribution and the bank guarantee amount if the Broker fails to fulfill any of its obligations for settlement that result of trading transactions through the Market.**

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.

4.2.1 How does the FMI identify sources of credit risk? What are the sources of credit risk that the FMI has identified?

The sources of credit risks are:

- 1. Deficits in the securities account of a Fund member in connection with his sales of securities on the market.**
Settlement of traded securities is conducted through an electronic environment, and is governed by a legal framework and strict timings and collaterals management for guarantees to eliminate risks related to settlement, where no failure in the securities side is possible by order verification facility.
- 2. Cash deficit of a Fund member in connection with his purchases of securities.**
Although the cash side of settlement is not fully controlled, but there has been no failure trades since the depository overtook the settlement process.

In case the transactions failed to be settled, they will be resolved through the Settlement Guarantee Fund through buy-in or sell-out process.

- 3. The SDC also processes Free-of-Payment (FOP) transfers which are mainly to family and inheritance transfers where the ownership is transferred directly after accomplishing the procedures of transfer (on a spot basis). These transactions may be one of the sources of credit risks.**
The SDC has many measures in this regard including the validity of relevant documents to enhance the procedures of control and risk management.

The (Article 88/F) of the SL indicates that the Fund subjects to the regulators monitoring, supervision, inspection and audit of its records.

4.2.2 How does the FMI measure and monitor credit exposures? How frequently does and how frequently can the FMI recalculate these exposures? How timely is the information?

All controls of credit risk are reviewed as the case may be by the Fund's Board of Directors and the recommendations of the internal audit and the concerned departments.

The internal By-Law of (SGF) states procedures to monitor and manage credit exposures:

- **The fund establishes at the SDC, and has a legal personality with financial autonomy.**
- **The Fund is managed by its Board of Directors and the Chief Executive Officer.**
- **The contributions of the fund are calculated based on specific formulas and are periodically re-calculated.**

It is worth mentioning that the Central Bank of Jordan (CBJ) is the Settlement Bank.

4.2.3 What tools does the FMI use to control identified sources of credit risk (for example, offering an RTGS or DvP settlement mechanism, limiting net debits or intraday credit, establishing concentration limits, or marking positions to market on a daily or intraday basis)? How does the FMI measure the effectiveness of these tools?

The major tools the SDC adopts are:

- A. The SDC applied DvP which is the International standards executed in the capital markets where delivery of sold securities is against payment of fund.**
- B. The Settlement model that is followed by the SDC is BIS model 2 (Gross Settlement of Securities Transfers is Simultaneously with Net Settlement of Funds Transfers)**
- C. All payments are processed through RTGS-JO via SWIFT**
The effectiveness: to date, the participant has not faced any credit loss, where the SDC is connecting with RTGS-JO through (VPN- Virtual Private Network) to be a back-up line in case the SWIFT system breaks down. Therefore, the (CBJ) can send and receive inter-banks transfer messages over the network (VPN).
- D. Settlement Cap adequate to posted collaterals.**
- E. Buy-in & sell-out measures.**

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.

4.3.1 How does the payment system or SSS cover its current and, where they exist, potential future exposures to each participant? What is the composition of the FMI's financial resources used to cover these exposures? How accessible are these financial resources?

The financial resources that are used to cover credit risks are the members' contributions in the SGF. These contributions are varies by member type, and calculated in accordance with formulas stated in the bylaws, which takes into consideration their exposure trends and projected amounts due at settlement:

For Brokers:

- Cash contribution
- Non-conditional Bank Guarantee

For Custodians:

- Open Standing Instructions (limited to Bank Custodians)
- Bank guarantee (Limited to Non-bank custodians)

This Fund is used when the broker or custodian defaults.

4.3.2 To what extent do these financial resources cover the payment system's or SSS's current and potential future exposures fully with a high degree of confidence? How frequently does the payment system or SSS evaluate the sufficiency of these financial resources?

The model in place (BIS) 2, and other procedures including DvP, and the SGF measures appears to reasonably cover the SDC's participants from excessive credit risks, however, if the Fund was not able to cover the securities in deficit on behalf of the concerned broker within a maximum period of five working days the ultimate option is to cancel the trades in case of default and reimburse the value of the bought securities to the buying broker on behalf of its client (Article 16 of the internal by-law of SGF.

It is important to note that to date there has never failed trades.

4.3.3 If the payment system or SSS is a DNS system in which there is no settlement guarantee, do its participants face credit exposures arising from the payment, clearing and settlement processes? If there are credit exposures in the system, how does the system monitor and measure these exposures?

Not applicable.

4.3.4 If the payment system or SSS is a DNS system in which there is no settlement guarantee and has credit exposures among its participants, to what extent does the payment system's or SSS's financial resources cover, at a minimum, the default of the two participants and their affiliates that would create the largest aggregate credit exposure in the system?

Not applicable.

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.

4.7.1 How do the FMI's rules and procedures explicitly address 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? How do the FMI's rules and procedures address the allocation of uncovered credit losses and in what order, including the repayment of any funds an FMI may borrow from liquidity providers?

The SGF is established by virtue of (Article 88) of the SL with the objectives of covering the cash deficit in connection with Fund members' purchases of securities and covering deficits in the securities account of Fund members in connection with their sales of securities. Its operations are detailed in the SGF By-Law.

The SGF's liability for covering any deficit is limited to the total guarantees of the defaulting members (Article 21) of the SGF By-Law.

Also, according to the (Article 14/D) of the internal by-law of the SGF states that if the amount that the Fund paid on behalf of the Broker exceeded the total of the cash contribution and bank guarantee together, the Fund shall take the following measures:

1. Debit the entire cash contribution balance of the concerned Broker.
2. Take all the necessary and immediate measures to liquidate the bank guarantee of the concerned Broker.
3. The Fund will possess the bought securities whose value has not been paid for with a percentage equaling 120% of the amount that exceeds the total of the Broker's cash contribution and the bank guarantee provided by it.

It is important to note that to date there has never failed trades.

4.7.2 What are the FMI's rules and procedures on the replenishment of the financial resources that are exhausted during a stress event?

Please refer to Q4.7.1.

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.

(Applicable FMIs: PS, SSS, CCP)

Key consideration 1

An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.

5.1.1 How does the FMI determine whether a specific asset can be accepted as collateral, including collateral that will be accepted on an exceptional basis? How does the FMI determine what qualifies as an exceptional basis? How frequently does the FMI adjust these determinations? How frequently does the FMI accept collateral on an exceptional basis, and does it place limits on its acceptance of such collateral?

The SDC accepts collaterals varies by type of member, in accordance with a formula stated in the bylaws of the Settlement Guarantee Fund (SGF), which takes into consideration their exposure trends and projected amounts due at settlement.

(Article 8/A) of the bylaw of the SGF states that the contributions in the Fund that are provided by the brokers are divided into cash contributions and non- conditional bank guarantees.

The Broker's obligations towards settlement purposes shall be as follows:

1. A non- conditional bank guarantee in the form accepted by the Fund's Board of Directors in the amount specified in accordance with this By-Law subject to the bank guarantee being payable upon request.
2. A cash contribution in accordance with the provisions of the internal by-Law of the settlement guarantee fund for the Year 2017.

However, the Fund's Board of Directors, upon recommendation of the Chief Executive Officer according to (Article 13) of the bylaws of the SGF, may:

1. Change the formula or method of calculation of the cash contribution and the bank guarantee specified in this By-Law, with the approval of the Board.
2. Re- calculate the cash contribution amount and the bank guarantee amount referred to in this By-Law for any Broker at any time.
3. Change the formula or method of calculation of the cash contribution and the bank guarantee amount if the Broker fails to fulfill any of its obligations for settlement that result of trading transactions through the Market.

As for Custodians:

1. Open Standing Instructions (limited to Bank Custodians).
2. Bank guarantee (Limited to Non-bank custodians).

5.1.2 How does the FMI monitor the collateral that is posted so that the collateral meets the applicable acceptance criteria?

(Article 10) of the bylaws of the SGF states the following:

1. The cash contribution amount for Brokers shall be re-calculated every three months at the end of March, June, September and December of each year.
2. If the cash contribution amount calculated in accordance with paragraph (1) above, is more than the amount of the Broker's cash contribution in the Fund, the Broker shall pay the amount that represents the difference within three business days from the date of receipt of the SDC's claim to that effect; otherwise, the SDC shall take the following measures:
 - A. Inform the Commission and notify the Market to suspend the Broker from trading.
 - B. Suspend the services provided by the Center to the concerned Broker.
3. If the cash contribution amount calculated in accordance with paragraph (1) above is less than the amount of the Broker's cash contribution in the Fund, the Fund shall reimburse the difference to the Broker, upon the Broker's request, within three business days.

(Article 11) of the bylaws of the SGF states the following:

1. The bank guarantee amount for all Brokers shall be re-calculated once every twelve months for brokers that have been trading in securities for twelve months.
2. If the amount of the bank guarantee calculated in accordance with paragraph (1) above, is more than the amount of the guarantee provided by the Broker, the Broker shall provide a guarantee for the new amount within ten business days from the date of receipt of the Fund's claim to that effect, otherwise the SDC shall:
 - A. Inform the Commission and notify the Market to suspend the Broker from trading.
 - B. Suspend the services provided by the Center to the concerned Broker.
3. If the amount of the bank guarantee calculated in accordance with paragraph (1) above is less than the amount of the bank guarantee provided by the Broker, the Broker may keep the guarantee or substitute it with a new guarantee of the new amount.

As for Custodians, (Article 8/C) of the bylaws of the SGF states that the Fund's Board of Directors shall determine the Guarantees that the Custodians should provide the SDC of for the benefit of the Fund.

5.1.3 How does the FMI identify and mitigate possible specific wrong-way risk – for example, by limiting the collateral it accepts (including collateral concentration limits)?

Not applicable.

Key consideration 2

An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.

5.2.1 How frequently does the FMI mark its collateral to market, and does it do so at least daily?

As mentioned previously and in the principle (4- credit risk), the guarantees that shall be paid by brokers are a non- conditional bank guarantee and a cash contribution that are recalculated periodically as follows:

(Article 10):

The cash contribution amount shall be re-calculated every three months at the end of March, June, September and December of each year.

(Article 11):

The bank guarantee amount for all Brokers shall be re-calculated once every twelve months for brokers that have been trading in securities for twelve months.

The equations of calculating the guarantees include the Settlement amounts that in turn reflect the trading volume.

5.2.2 To what extent is the FMI authorized to exercise discretion in valuing assets when market prices do not represent their true value?

Please refer to Q 5.2.1.

5.2.3 How does the FMI determine haircuts?

Please refer to our response regarding Q.4.1.1 of the principle (4- credit risk), which indicates the equations of calculation the guarantees.

5.2.4 How does the FMI test the sufficiency of haircuts and validate its haircut procedures, including with respect to the potential decline in the assets' value in stressed market conditions involving the liquidation of collateral? How frequently does the FMI complete this test?

Not applicable.

Key consideration 6

An FMI should use a collateral management system that is well- designed and operationally flexible.

5.6.1 What are the primary features of the FMI's collateral management system?

The SDC has an electronic system to manage the collaterals and any changes to it, recalculate them in the set times, and follow up any changes to reflect them in the guarantees.

There is a special bank account designed for this purpose (collaterals) for each member. These bank accounts are completely segregated and the SDC has full control over them.

While the SDC keeps the bank guarantees that are guaranteed by CBJ as a Settlement bank upon request.

5.6.2 How and to what extent does the FMI track the reuse of collateral and its rights to the collateral provided?

The brokers are notified after each re-calculation of cash contributions, and the SDC collect the due amounts as receivables from brokers then as a result the SDC re-distribute the cash at banks upon their request.

5.6.3 How and to what extent does the FMI's collateral management system accommodate changes in the ongoing monitoring and management of collateral?

The SDC periodically review its guarantees as mentioned above, and in case there are any changes, the SDC manages and reviews these changes to reflect them in the guarantees.

5.6.4 To what extent is the collateral management system staffed to ensure smooth operations even during times of market stress?

Please refer to Q.5.6.1.

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.

(Applicable FMIs: CCP)

The SDC is a CSD and an SSS, the SDC does not act as a CCP currently.

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.

(Applicable FMIs: PS, SSS, CCP)

Key consideration 1

An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.

7.1.1 What is the FMI's framework for managing its liquidity risks, in all relevant currencies, from its participants, settlement banks, nostro agents, custodian banks, liquidity providers and other entities?

The framework is set in such a way that the SDC does not use its own liquidity in the settlement process and hence does not incur liquidity risk from its settlement operations. This framework reflects the following:

1. The SDC guarantees the delivery of securities versus payment of them on T+2.
2. The JOD is the currency of trades and it is pegged to the US\$.
3. In case the default of any member, the SDC may use the resources available in the SGF to cover this default:
 - Article 21 of the internal by-law of the SGF states that:
 - A- The Fund's liability for covering any deficit is limited to the total guarantees of the concerned Members in the Fund.
 - B- The Fund's assets shall be segregated from the Center's assets. The assets of the Center shall not in any case be used to fulfill the settlement obligations on behalf of any Member.
 - The currency of the guarantees in the SGF is JOD.
4. The SDC holds two accounts with the settlement bank (CBJ):
 - A- The Liquidity reserve account (T+1).
 - B- The Settlement account (T+2).
5. The SDC does not act as CCP. Therefore, the SDC not exposed liquidity risk toward its members.

7.1.2 What are the nature and size of the FMI's liquidity needs, and the associated sources of liquidity risks, that arise in the FMI in all relevant currencies?

The nature of liquidity need is cash and its size depends on the trading volume. The SDC accepts guarantees only in JOD; hence there are no associated risks results from currencies fluctuation.

The liquidity needs also depends on the technical environment, contracts, updates, etc.

Key consideration 2

An FMI should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.

7.2.1 What operational and analytical tools does the FMI have to identify measure and monitor settlement and funding flows?

The SDC Instructions of Registration, Deposit and Settlement of Securities contain detailed provisions on the measuring and monitoring of settlement and funding flows based on exchange of a Trading file with the ASE (Art. 55). Receipt and payment of value of securities from and to the brokers and custodians is done through a settlement account opened by each broker and custodian with the settlement bank (Art. 67). The SDC has also opened a liquidity reserve account in which it deposits the cash amounts collected from the brokers representing the liquidity reserve (Art. 67). The SDC electronically initiates settlement contracts for each trading contract performed by the brokers (Art. 69) and calculates the net amounts to be paid to/by the broker on settlement day (Art. 73). If the broker or custodian does not pay the amounts due to be paid on settlement day by 9:00 am, the broker or custodian shall be considered in breach of its obligations and the SGF shall substitute that broker or custodian to fulfill those obligations (Art. 82).

The system issues analytical reports on the basis of which guarantees and amounts are determined and their details are viewed.

7.2.2 How does the FMI use those tools to identify, measure and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity?

Please refer to Q7.2.1

Key consideration 3

A payment system or SSS, including one employing a DNS mechanism, should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or 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 payment obligation in extreme but plausible market conditions.

- 7.3.1 How does the payment system or SSS determine the amount of liquid resources in all relevant currencies to effect same day settlement and, where appropriate, intraday or multiday settlement of payment obligations? What potential stress scenarios (including, but not limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation in extreme but plausible market conditions) does the payment system or SSS use to make this determination?

The settlement process in place involves a series of mechanisms to reduce liquidity risk to participants:

- **All cash transfers related to settlement are effected between the SDC's settlement account at the CBJ & the brokers and custodians accounts at their commercial banks through the RTGS-JO SWIFT on T+2, with same-day value.**
 - ✓ **The Broker shall pay the amounts due to be paid by it as Liquidity Reserve by nine (9:00) am. Maximum, on the first Day following the Trading Day (T+1) by transferring the required amount from its account to the Center's Settlement Account.**
 - ✓ **The Broker and the Custodian shall pay the amounts due to the Settlement Account by nine (9:00) am. Maximum, on the second Day after the Trading Day (T+2) by transferring the required amount from its account to the Center's Settlement Account.**
- **The transfer of funds & securities occur simultaneously on an irrevocable basis on Settlement Date (T+2).**

In regard to the stress scenarios to meet this specific purpose, the SDC has no scenarios but rather it is based on the provisions of the legislations related to risk management of settlement operations according to a method that allows the SDC to always manage and contain any potential damage, regardless of its size.

- 7.3.2 What is the estimated size of the liquidity shortfall in each currency that the payment system or SSS would need to cover?

The liquidity represents mainly the collaterals posted by the Broker towards settlement purposes which are:

1. **A non- conditional bank guarantee in the form accepted by the Fund's Board of Directors in the amount specified in accordance with this By-Law subject to the bank guarantee being payable upon request.**
2. **A cash contribution in accordance with the provisions of the internal by-Law of the settlement guarantee fund for the Year 2017**

These collaterals are sufficient in case of default. It is important to note that to date there has never failed trades.

Key consideration 5

For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.

- 7.5.1 What is the size and composition of the FMI's qualifying liquid resources in each currency that is held by the FMI? In what manner and within what time frame can these liquid resources be made available to the FMI?

The only accepted guarantees are cash and bank guarantees in Jordanian dinar (trading currency), with regard to liquidating the bank guarantees to cash is done through the central bank of Jordan upon the SDC request.

Also within the SDC settlement procedures, it could possess the asset shares owned by participants in their propriety accounts and liquidate such assets to meet such participants default.

- 7.5.2 What prearranged funding arrangements has the FMI established to convert its readily available collateral and investments into cash? How has the FMI established that these arrangements would be highly reliable in extreme but plausible market conditions? Has the FMI identified any potential barriers to accessing its liquid resources?

Please refer to Q.7.5.1

- 7.5.3 If the FMI has access to routine credit at the central bank of issue, what is the FMI's relevant borrowing capacity for meeting its minimum liquid resource requirement in that currency?

Not applicable

- 7.5.4 To what extent does the size and the availability of the FMI's qualifying liquid resources cover its identified minimum liquidity resource requirement in each currency to effect settlement of payment obligations on time?

Not applicable

Key consideration 7

An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.

- 7.7.1 Does the FMI use a liquidity provider to meet its minimum required qualifying liquidity resources? Who are the FMI's liquidity providers? How and on what basis has the FMI determined that each of these liquidity providers has sufficient information to understand and to manage their associated liquidity risk in each relevant currency on an ongoing basis, including in stressed conditions?

This consideration is not applicable to the SDC since the legal and operational framework of the SDC is set in such a way that the SDC does not incur liquidity risk from its settlement operations (see K.C.7.1).

Therefore, the SDC is not maintaining liquidity to meet its minimum liquidity resource requirements.

7.7.2 How has the FMI determined that each of its liquidity providers has the capacity to perform on its commitment in each relevant currency on an ongoing basis?

Not applicable

7.7.3 How does the FMI take into account a liquidity provider's potential access to credit at the central bank of issue?

Not applicable

7.7.4 How does the FMI regularly test the timeliness and reliability of its procedures for accessing its liquid resources at a liquidity provider?

Not applicable

Key consideration 8

An FMI should with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.

7.8.1 To what extent does the FMI currently have, or is the FMI eligible to obtain, access to accounts, payment services and securities services at each relevant central bank that could be used to conduct its payments and settlements and to manage liquidity risks in each relevant currency?

The SDC has accounts at the CBJ and has full accesses to such accounts. The SDC is a member in the RTGS-JO payment system.

Art. 67 of the SDC Instructions of Registration, Deposit and Settlement of Securities states that receipt and payment of the value of securities from and to the Brokers and Custodians shall be through the Settlement Account at the Settlement Bank. It further states that the SDC shall open a Liquidity Reserve Account with the Settlement Bank in which it deposits the cash amounts collected from the Brokers representing the Liquidity Reserve in accordance with these Instructions. This significantly reduces the risk level.

7.8.2 To what extent does the FMI use each of these services at each relevant central bank to conduct its payments and settlements and to manage liquidity risks in each relevant currency?

Please refer to Q.7.8.1

7.8.3 If the FMI employs services other than those provided by the relevant central banks, to what extent has the FMI analyzed the potential to enhance the management of liquidity risk by expanding its use of central bank services?

Not applicable

7.8.4 What, if any, practical or other considerations to expanding its use of relevant central bank services have been identified by the FMI?

Not applicable

Key consideration 9

An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.

The SDC is in the process of establishing a new unit dedicated for risk management and applying international standards in this field including stress test.

Key consideration 10

An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.

7.10.1 How do the FMI's rules and procedures enable it to settle payment obligations on time following any individual or combined default among its participants?

Through the following rules:

If the Broker does not pay the amounts due to be paid to the Settlement Account on Settlement Day by nine (9:00) A.M., the Broker shall be considered in breach of its obligations and the Settlement Guarantee Fund shall substitute that Broker to fulfill those obligations. The Center shall take the following measures:

- A. Transfer the amount-that has not been paid-from the Settlement Guarantee Fund account to the Center's Settlement Account.**
- B. Inform the Commission and notify the Market to suspend the Broker from Trading and suspend the services provided by the Center to the concerned Broker.**
- C. Impose a lien on the securities owned by the Broker for the benefit of the Settlement Guarantee Fund.**
- D. Request the concerned Broker to pay all its obligations due to the Center and the Settlement Guarantee Fund including the delay charges and any expenses or costs incurred by the Center as a result of the Broker's breach of obligation.**

7.10.2 How do the FMI's rules and procedures address unforeseen and potentially uncovered liquidity shortfalls and avoid unwinding, revoking or delaying the same day settlement of payment obligations?

It is regulated through the internal bylaws of Settlement Guarantee Fund. Good to mention that such circumstances have never been happened.

7.10.3 How do the FMI's rules and procedures allow for the replenishment of any liquidity resources employed during a stress event?

The SGF Board of Directors, upon recommendation of the Chief Executive Officer according to Article (13) of the bylaws of the SGF, may:

- A. Change the formula or method of calculation of the cash contribution and the bank guarantee specified in this By-Law, with the approval of the Board.**
- B. Re- calculate the cash contribution amount and the bank guarantee amount referred to in this By-Law for any Broker at any time.**
- C. Change the formula or method of calculation of the cash contribution and the bank guarantee amount if the Broker fails to fulfill any of its obligations for settlement that result of trading transactions through the Market.**

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.

(Applicable FMIs: PS, SSS, CCP)

Key consideration 1

An FMI's rules and procedures should clearly define the point at which settlement is final.

8.1.1 At what point is the settlement of a payment, transfer instruction or other obligation final, meaning irrevocable and unconditional? Is the point of settlement finality defined and documented? How and to whom is this information disclosed?

- **Article (112) of SL states that securities shall enjoy, in accordance with the provisions of this Law, the following privileges:**
 - A. The finality and conclusiveness of securities trades in Financial Markets.**
 - B. Ownership rights and due prices in accordance with the Center's accounts.**
 - C. Irrevocability of the final settlement of trading contracts on the Financial Market.**
- **The Definition of Settlement is stipulated in Article (2) of the SDC Instructions of Registration, Deposit and Settlement of Securities "The process by which a Trading Contract is completed with the final, unconditional transfer of securities from the seller to the buyer and the final settlement of price payments in their respect".**
- **All traded securities in the Exchange subject to the SDC clearing and settlement measure and the settlement deadline is T+2 and the ownership is backdated to T+0.**
- **The ASE provides the SDC with trading file at the end of trading session on T+0, this trading file with all its contents, information, and data shall be deemed final (Article 55) of the SDC Instructions of Registration, Deposit and Settlement of Securities. Therefore, securities are blocked before trade execution in the sellers' accounts with a pending in/out status against cash settlement.**

- Once the order is entered into the system, no cancelation is possible.
- In case the broker is default, the SGF substitutes him according to the internal bylaw of the SGF.
- The above mentioned mechanisms ensure the transfer of funds and securities ownership occurs simultaneously on an irrevocable basis on (T+2), where the SDC operates a BIS Model 2 settlement system, with net settlement of funds and the gross transfer of securities on simultaneous basis.
- All cash transfers related to settlement are effected between the SDC's settlement account at the CBJ & the brokers and custodians accounts at their commercial banks through the RTGS-JO SWIFT on T+2, with same-day value.
- Registration and transfer of ownership of securities traded on the Exchange and the price settlements of such securities between Brokers shall be via book- entries in the SDC's records (Article 79/C) of the SL.
- As for the SDC OTC includes mainly inheritance transfers and family transfers that are not subject to the SDC clearing and settlement measure (settled directly by the parties on spot) and the settlement deadline is T+0

With regard to the disclosure of the settlement finality:

- Documents and bylaws published online via the SDC website, intranet, memos, and other means of communication. Therefore, this information is directed to the public, SDC members, and other parties who are interested in this information.
- The SDC's electronic system (SCORPIO) provided to members enables them to reconciliation of securities holding positions of the concerned clients' accounts which is done on a daily basis.

8.1.2 How does the FMI's legal framework and rules, including the applicable insolvency law(s), acknowledge the discharge of a payment, transfer instruction or other obligation between the FMI and its participants, or between participants?

Article (84) of the SL states the following:

- A. Notwithstanding what is stated in any other legislation, if a Financial Broker, Dealer or Center member is subject to a bankruptcy, liquidation or sequestration order, the Center, before the commencement of the bankruptcy, liquidation, or sequestration proceedings pursuant to the legislation in force, and according to 57 instructions issued thereby, shall take all appropriate measures to fulfill the settlement of any pending trading contracts to which such member was a party before issuance of that order. Such trading contracts, after the settlement thereof, shall be considered valid against third parties.
- B. Notwithstanding what is stated in Paragraph (A) of this Article, the Board by itself or at the request of a concerned party, and upon good cause shown, may amend or cancel in part or in whole, any of the trading contracts referred to in Paragraph (A) of this Article.

8.1.3 How does the FMI demonstrate that there is a high degree of legal certainty that finality will be achieved in all relevant jurisdictions (for example, by obtaining a well-reasoned legal opinion)?

As indicated in the principle (1- Legal Basis), all SDC's business and operations based on reliable legal framework represented by Securities Law (SL), and SDC's instructions and bylaws which provides the SDC with well-founded, clear, transparent, and enforceable legal basis.

This legal framework regulated all settlement aspects including the settlement times, procedures of defaulting, and the procedures of SGF, etc.

8.1.4 How does the FMI ensure settlement finality in the case of linkages with other FMIs?

Not applicable

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.

8.2.1 Is the FMI designed to complete final settlement on the value date (or same day settlement)? How does the FMI ensure that final settlement occurs no later than the end of the intended value date?

Securities settlement occurs at T+2 through single-batch processing. In case of default, the SGF substitutes the defaulting broker. The SDC does not provide intraday or real-time settlement.

As mentioned in the principle (4- Credit Risk), it is worth mentioning that if the SGF was not able to cover the securities in deficit on behalf of the concerned broker within a maximum period of five working days the ultimate option is to cancel the trades in case of default and reimburse the value of the bought securities to the buying broker on behalf of its client (Article 16) of the internal by-law of SGF and (Article 62) of the SDC Instructions of Registration, Deposit and Settlement of Securities.

8.2.2 Has the FMI ever experienced deferral of final settlement to the next business day that was not contemplated by its rules, procedures or contracts? If so, under what circumstances? If deferral was a result of the FMI's actions, what steps have been taken to prevent a similar situation in the future?

Normally, the settlement is final and irrevocable on T+2. And there have not been cases of deferral.

8.2.3 Does the FMI provide intraday or real-time final settlement? If so, how? How are participants informed of the final settlement?

Please refer to Q 8.2.1

The (Article 77) of the SDC's instructions of Registration, Deposit, and Settlement of Securities define that on each trading day, the SDC shall transmit an electronic notice to each Broker and each Custodian, the notice shall include the following data and information:

- A. The net amount due to be received or paid by the Broker or Custodian for the Settlement Purpose.**
- B. The amount to be paid by the Broker as Liquidity Reserve in the Settlement Account**
- C. The amount due to be paid by the Broker or Custodian in the Settlement Account on the Settlement day.**

8.2.4 If settlement occurs through multiple-batch processing, what is the frequency of the batches and within what time frame do they operate? What happens if a participant does not have enough funds or securities at the settlement time? Are transactions entered in the next batch? If so, what is the status of those transactions and when would they become final?

Not applicable

8.2.5 If settlement does not occur intraday or in real time, how has the LVPS or SSS considered the introduction of either of these modalities?

Not applicable

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.

8.3.1 How does the FMI define the point at which unsettled payments, transfer instructions or other obligations may not be revoked by a participant? How does the FMI prohibit the unilateral revocation of accepted and unsettled payments, transfer instructions or obligations after this time?

As mentioned above, the ASE provides the SDC with trading file at the end of trading session on T+0, this trading file with all its contents, information, and data shall be deemed final (Article 55) of the SDC Instructions of Registration, Deposit and Settlement of Securities.

The respective rights and obligations of the seller of securities, of the purchaser thereof and of third parties thereto shall be established on the date of concluding the contract at the Exchange (Article 79/G) of the SL.

As indicated in the principle (2- Governance), the SDC manage its settlement risks by taking several measures. For example, adopting the model of SGF.

8.3.2 Under what circumstances can an instruction or obligation accepted by the system for settlement still be revoked (for example, queued obligations)? How can an unsettled payment or transfer instruction be revoked? Who can revoke unsettled payment or transfer instructions?

The Trading File received by the SDC from the Market at the Trading date shall be deemed final (Article 55) of the SDC Instructions of Registration, Deposit and Settlement of Securities. In case of suspended transactions, the Broker shall resolve the causes related to impending the Trading Contracts within the following next Day of Trade date by maximum otherwise the SGF shall substitute the broker (Article 62).

(Article 16) of the SDC by-law of the SGF states the following:

- A. If a deficit occurs in the sold securities, the concerned Broker shall resolve the reasons of that deficit within the specified period in accordance with the Instructions issued by the SDC.**
- B. If the concerned Broker does not cover the deficit in the securities within the specified period referred to in Paragraph (A) of this Article, the Fund shall substitute that broker and on its behalf.**
- C. If the Fund was not able to cover the securities in deficit on behalf of the concerned broker within a maximum period of five working days, the SDC has, in this case, the right to cancel the suspended trading contracts that resulted in the sale of securities in deficit and reimburse the value of the bought securities to the buying broker on behalf of its client.**

8.3.3 Under what conditions does the FMI allow exceptions and extensions to the revocation deadline?

Not applicable

8.3.4 Where does the FMI define this information? How and to whom is this information disclosed?

Not applicable

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.

(Applicable FMIs: PS, SSS, CCP)

Key consideration 1

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

9.1.1 How does the FMI conduct money settlements? If the FMI conducts settlement in multiple currencies, how does the FMI conduct money settlement in each currency?

The SDC avoids credit and liquidity risks by assigning the Central Bank of Jordan (CBJ) as a Settlement Bank. Therefore, money settlement shall be conducted through CBJ.

The only accepted currency for the settlement purposes is Jordanian Dinar.

9.1.2 If the FMI does not settle in central bank money, why is it not used?

Not applicable.

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.

9.5.1 Do the FMI's legal agreements with its settlement banks state when transfers occur, that transfers are final when effected, and that funds received are transferable?

As indicated in the principle (1- Legal Basis), all SDC's business and operations based on reliable legal framework represented by Securities Law (SL) and SDC's bylaws and instructions which provides the SDC with well-founded, clear, transparent, and enforceable legal basis.

The SDC also developed electronic systems to use SWIFT network to send and receive settlements payments via real time gross settlement systems (RTGS) using the International standard (ISO 20022 MX Messages), that leads to reduce risks in the Jordan capital market.

The SDC has become an active member of SWIFT and a direct member of the CBJ RTGS through agreements. Therefore, transfers are conducted via RTGS-system which is real-time, final, unconditional and irrevocable on T+2 as indicated in the principle (8- Settlement Finality).

9.5.2 Are funds received transferable by the end of the day at the latest? If not, why? Are they transferable intraday? If not, why?

Please refer to Q9.5.1

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.
(Applicable FMIs: CSD, SSS, CCP)

This principle is not applicable to the SDC.

Principle 11: Central securities depositories

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimize and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilized or dematerialized form for their transfer by book entry.
(Applicable FMIs: CSD)

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 unauthorized creation or deletion of securities, and conduct periodic and at least daily reconciliation of securities issues it maintains.

11.1.1 How are the rights of securities issuers and holders safeguarded by the rules, procedures and controls of the CSD?

As indicated in the principle (1-Legal Basis), all SDC's business and operations based on reliable legal framework represented by Securities Law (SL) and the SDC's bylaws and instructions which provides the SDC with well-founded, clear, transparent, and enforceable legal basis. Therefore, the SDC acts as central securities depository in Jordan and according to (Article 75) of the SL, it shall be the sole entity in Jordan authorized to perform the functions of: (a) registration, safekeeping, and transferring of ownership of securities; (b) depositing securities; (c) clearing and settlement of securities.

All securities deposited with the SDC are dematerialised which helps reduce the risks associated with the above-mentioned functions. Securities are held at the SDC through various types of accounts at the beneficiary level. The SDC has put in place rules, procedures and controls aimed at the efficient and safe transfer of securities. It is worth mentioning that dematerialised securities eliminates the risks of destruction or theft of the certificates.

The SL (Article 5) states that every Issuer in the Kingdom shall submit to the Commission an application for registering securities therewith in accordance with the instructions issued by the Board.

The SL (Article 79/E) and also mentioned in the (Article 6) of the instructions of the Registration, Deposit and Settlement of Securities states the same that unless otherwise proven, the entry records and the accounts maintained by the SDC as well as any document issued by the SDC, shall constitute prima facie legal evidence of ownership, registration, transfer of ownership and settlement of the securities, at the prices and on the dates stated in those records, accounts or documents.

The instructions of the Registration, Deposit and Settlement of Securities (Article 10) states that the Issuer shall provide the SDC with the register of the owners of its issued securities in accordance with the data, specifications and method acknowledged by the SDC. The Issuer shall be responsible for the correctness, accuracy and completeness of the content of this register (Article 11/B) of the instructions of the Registration, Deposit and Settlement of Securities.

The register of the owners of securities is divided into: (a) deposited securities; and (b) non-deposited securities (Article 12) of the Registration, Deposit and Settlement of Securities. The deposited registers are under the SDC's jurisdiction and the non-deposited registers are still kept with the Issuer and upon his responsibility.

The reconciliation of securities holding positions with participants is done on a daily basis through the SDC's electronic system (SCORPIO).

11.1.2 How do the CSD'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?

The SDC electronically applies the concept of registering the account on NIN (National Identification Number) which enables the investor to view his basic data and information related to his deposited securities' accounts, this service is provided at the level of the investor for all his accounts maintained by all SDC's members. Reconciliation and verification of balances are conducted for each share book on a daily basis as a result of several operations such as initial public offering, corporate actions, and even from the date of delivering the share book.

All participants required segregating assets held for their own benefit from those they hold for their clients; therefore, the SDC maintains participant's securities positions down to the level of beneficial owner.

The SDC also maintains records identifying the assets of each participant through electronic records in a secured database. And it shall be prohibited for any person to access the SDC's Database whereby such unauthorized access would enable that person to obtain information regarding the accounts, its owners and any ownership restrictions related thereto unless authorized thereby by virtue of the Law, the By-Laws and Instructions issued by the SDC (Article 7) of the instructions of the Registration, Deposit and Settlement of Securities.

The SDC make available periodic safekeeping reports to participants, where the participants are able to view undated these reports on daily basis through (SCORPIO)[®] electronic systems provided to each participant.

It is worth mentioning that the SDC pass through three levels of security phases for each operation: saving, verifying and posting.

11.1.3 How does the CSD ensure that it has robust accounting practices? Do audits review whether there are sufficient securities to satisfy customer rights? How frequently are end-to-end audits conducted to examine the procedures and internal controls used in the safekeeping of securities?

The SDC has robust accounting practices where the SDC's registers are held electronically via book entry and any changes on these registers are conducted only through the SDC's electronic system. This system includes controls to check the inputs and outputs so it ensures the credibility of the records.

The SDC conducts end-to-end audits:

- Daily basis to examine the procedures and internal controls used in the safekeeping of securities.
- Annually according to the annual audit plan therefore, the internal auditors check the positions, and audit all the SDC operations in varying percentages by checking the operations 4-6 times in a year.

The regulator (Jordan Securities Commission) also checks the outputs of the audit and other operations through its surveillance system.

11.1.4 What are the CSD's internal procedures to authorize the creation and deletion of securities? What are the CSD's internal controls to prevent the unauthorized creation and deletion of securities?

The SDC's prevent unauthorized creation of securities through the following internal procedures:

- **Performing previous and next audits of this process.**
- **The SDC pass through three levels of security phases for each operation: saving, verifying and posting that are given to three different authorized personnel.**
- **Approval from the concerned parties.**

(Article 8) of the instructions of the Registration, Deposit and Settlement of Securities states that pursuant to registering the issuance of Securities at the JSC, the issuer should register the issuance at the SDC providing the relevant information and data.

The SDC's prevent unauthorized deletion of securities through the following internal procedures:

- **After receiving the deletion decisions from the Jordan Securities Commission and the Ministry of Industry, Trade, and Supply, the SDC take its decision to terminate the membership of the public shareholding company.**
- **The SDC delivers the shareholders register to the companies control department, and then it is deleted from the SDC register.**

(Article 21) of the instructions of the Registration, Deposit and Settlement of Securities states that the Center shall cancel the ownership of securities in its records and deliver the concerned Issuers the registers of the owners of securities in the following cases:

- **The termination of the issuer's membership at the Center.**
- **Redemption of bonds and corporate bonds issuances.**
- **Any other cases determined by the Board of Directors in accordance with the provisions of the Law.**

Notwithstanding the above provision, the SDC shall maintain the historical records and copies of the ownership registers as of the date of delivery to the Issuers.

11.1.5 Does the CSD conduct periodic and at least daily reconciliation of the totals of securities issues in the CSD for each issuer (or its issuing agent)? How does the CSD ensure that the total number of securities recorded in the CSD for a particular issue is equal to the amount of securities of that issue held on the CSD's books?

The SDC is the official registrar of the securities and its records are considered the legal proof of ownership and participants (issuers, brokers, custodians) are electronically connected online to the SDC's system and can view all balances on daily bases, and therefore, reconcile with their records at any time, In addition, the SDC's system contains controls prevent any failure in reconciliation.

11.1.6 If the CSD is not the official registrar of the issues held on its books, how does the CSD reconcile its records with official registrar?

Not applicable.

Key consideration 2

A CSD should prohibit overdrafts and debit balances in securities accounts.

11.2.1 How does the CSD prevent overdrafts and debit balances in securities accounts?

The environment of the SDC and ASE tight-coupling that primarily reflects on the concept of risk management related to trading in the Jordan Capital Market, represented by verifying whether the selling and buying orders placed in the electronic trading system fulfill all the required conditions which are necessary to complete the order before passing it through the electronic trading system through the implementation of an electronic system called Central Control Module (CCM).

Key consideration 3

A CSD should maintain securities in an immobilized or dematerialized form for their transfer by book entry. Where appropriate, a CSD should provide incentives to immobilize or dematerialize securities.

11.3.1 Are securities issued or maintained in a dematerialized form? What percentage of securities is dematerialized, and what percentage of the total volume of transactions applies to these securities?

All securities are dematerialized and held in book-entry so its percentage is (100%).

11.3.2 If securities are issued as a physical certificate, is it possible to immobilize them and allow their holding and transfer in a book-entry system? What percentage of securities is immobilized, and what percentage of the total volume of transactions applies to immobilized securities?

Not applicable.

11.3.3 What incentives, if any, does the CSD provide to immobilize or dematerialize securities?

Not applicable.

Key consideration 4

A CSD should protect assets against custody risk through appropriate rules and procedures consistent with its legal framework.

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

Securities accounts at the SDC are opened at the beneficial owner level, which facilitates the portability of assets in case of insolvency of participants. All the securities held in the SDC are dematerialized. The reconciliation of securities holding positions with participants is done on daily basis and this process is fully automated.

The SDC has controls in place related to the access of securities accounts mitigating the risk of fraudulent transfer of securities. Those controls include passwords and unique identifiers using a dual control method where three passwords and three usernames are required for an action, and unique identification numbers and full responsibility of the broker or custodian for the correctness and accessing of clients' data through them.

The SDC has implemented 3 sites (main Production site, Business Continuity site and Disaster Recovery site) based on latest Technology. The SDC have stipulated that in the event of a switch to the backup site, zero-data-loss will be experienced and the data are easily retrieved.

It is worth mentioning that the SDC pass through three levels of security phases: saving, verifying and posting.

The SDC does not have insurance policies in place to protect its participants against custody risk.

11.4.2 How has the CSD determined that those rules and procedures are consistent with the legal framework?

All those procedures are consistent with the legal framework as they are stemmed from its by-laws and instructions. Additionally, all procedures are approved by the board of directors and in case of any modification of the procedure, this associated with amendment of the laws and instructions.

11.4.3 What other methods, if any, does the CSD employ to protect its participants against misappropriation, destruction and theft of securities (for example, insurance or other compensation schemes)?

The SDC has many controls to protect its participants against misappropriation, destruction and theft of securities such as daily basis audit, reporting system, balances reconciliation, and providing its members with systems containing all ownership positions for their shareholders.

The number of SDC members linked to the SDC's network who are distributed in different parts of the country, etc.

In the same context, all securities are dematerialized which eliminate the risk of destruction and theft of securities in case of physical certificate.

The SDC accepts liability in case of system break down, fraud, forgery, and employee negligence or misconduct. However, the SDC has no insurance policy to cover losses resulting from such actions.

To date, the SDC has not suffered any loss, also has not subjected to litigation involving participants.

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.

11.5.1 What segregation arrangements are in place at the CSD? How does the CSD ensure segregation between its own assets and the securities of its participants? How does the CSD ensure segregation among the securities of participants?

The SDC maintains the participants' securities positions down to the level of beneficial owner. This procedure protects the participants' assets in case of a claim is placed against the SDC and it is impossible to be co-mingled with the SDC assets.

The concept of issuing the SDC a unique number of each investor called the "SDC Investor Number" supports the segregation between participants' assets.

It is worth mentioning that according to (Article 34) of the instructions of the Registration, Deposit and Settlement of Securities demonstrates the investors accounts that may be opened on the SDC's Database are five types which are Independent Account, Margin Account, Joint Account, Custody Account, and Allocation account.

11.5.2 Where supported by the legal framework, how does the CSD support the operational segregation of securities belonging to participants' customers from the participants' book? How does the CSD facilitate the transfer from these customers' accounts to another participant?

Regarding segregation, please refer to Q11.5.1

As for the transfer, deposited securities are transferred from the owner's account at the SDC to the owner's account under the control of a broker or custodian and vice versa based on a request submitted to the broker or custodian by the client (Articles 35 & 36) of the instructions of the Registration, Deposit and Settlement of Securities. Securities are transferred from a client's account with a broker to its account with a custodian and vice versa directly without the intervention of the SDC (Article 37).

Any other transfer of books due to any corporate action is handled electronically by the SDC and with auditing, verification, and acknowledgement of the participant.

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.

11.6.1 Does the CSD provide services other than central safekeeping and administration of securities and settlement? If so, what services?

- **Placing and releasing pledges.**
- **Freezing and unfreezing deposited securities.**
- **The exempted transfers which are mainly family and inheritance transfers, and acquisition, and others.**
- **Corporate Actions.**

As regards corporate actions (increase or decrease in capital, stock split, and mergers) as the SDC has just processed them, and general assembly meetings, the SDC can handle them on behalf of the issuers on a contractual basis, although it has never been done before.

11.6.2 If the CSD provides services other than central safekeeping and administration of securities and settlement, how does it identify the risks associated with those activities, including potential credit and liquidity risks? How does it measure, monitor and manage these risks, including legally separating services other than safekeeping and administration of securities where necessary?

Please refer to Q11.1.2

Principle 12: Exchange-of-value Settlement System

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.

(Applicable FMIs: PS, SSS, CCP)

This principle is not applicable to the SDC.

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.

(Applicable FMIs: PS, SSS, CCP)

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.

13.1.1 Do the FMI's rules and procedures clearly define an event of default (both a financial and an operational default of a participant) and the method for identifying a default? How are these events defined?

Yes, the SDC's rules procedures clearly define an event of default.

As mentioned in the principle (4- credit risk) and principle (11 -CSD), the SGF is established by virtue of Article. 88 of the SL with the objectives of covering the cash deficit in connection with Fund members' purchases of securities, and covering deficits in the securities account of Fund members in connection with their sales of securities.

The principle (4- credit risk) and principle (7- liquidity risk) indicate that if the Broker or the Custodian does not pay the amounts due to be paid to the Settlement Account on Settlement Day by nine (9:00) am., the Broker or Custodian shall be considered in breach of its obligations and the Settlement Guarantee Fund shall substitute that Broker or Custodian to fulfill those obligations. The SDC shall take the following measures (Article 82) of the SDC's instructions of Registration, Deposit, and Settlement of Securities:

- A- Transfer the amount-that has not been paid- from the Settlement Guarantee Fund account to the Center's Settlement Account.**
- B- Inform the Commission and notify the Market to suspend the Broker from Trading.**
- C- Suspend the services provided by the Center to the concerned Broker or Custodian.**
- D- Impose a lien on the securities owned by the Broker or the Custodian for the benefit of the Settlement Guarantee Fund.**
- E- Request the concerned Broker or Custodian to pay all its obligations due towards the Center and the Settlement Guarantee Fund including the delay charges and any expenses or costs incurred by the Center as a result of the breach of obligation.**

13.1.2 How do the FMI's rules and procedures address the following key aspects of a participant default?

The following answer covers all below questions.

The SDC has legislations including SL and instructions of Registration, Deposit, and Settlement of Securities clearly define the SDC's procedures to manage the defaults of participants to resolve the causes of defaults. Therefore, in case the causes of defaults are not resolved, an important and crucial procedure that is taken by the SDC is the use of the SGF in order to ensure the completion of settlement cycle on T+2.

As mentioned in the principle (4- credit risk) and principle (11 -CSD), the SGF is established by virtue of Article. 88 of the SL with the objectives of covering the cash deficit in connection with Fund members' purchases of securities, and covering deficits in the securities account of Fund members in connection with their sales of securities (occurs only for custody clients short selling).

The principle (4- credit risk) and principle (11 -CSD) points out that the Settlement of traded securities is conducted through an electronic environment, and is governed by a legal framework and strict timings and collaterals

management for guarantees to eliminate risks related to settlement, where no failure in the securities side is possible by order verification facility and although the cash side is not fully controlled, but there has been no failure trades since the depository overtook the settlement process. However, in case the transactions failed to be settled, they will be resolved through the Settlement Guarantee Fund through buy-in or sell-out process.

However, the system which is called Central Control Module (CCM) does not check for sufficient inventory prior to trade execution for custody clients, although they are also required to pre-fund their securities positions. Thus, short-selling could be possible in the case of custodian clients. If the custodian rejects the settlement contract the broker remains liable towards the SDC of settling the trading contract executed in accordance with the provisions of (Article 72) of the instructions of the Registration, Deposit and Settlement of Securities, the Broker remains liable towards the SDC of settling the trading contract executed by it in accordance with the procedures and timings stipulated within these instructions.

Securities sold are debited from the account of the seller and credited to the account of the buyer on trade date in accordance with the Trading file delivered to the SDC by the Market. However, the securities remain impending in the account of the buyer until the completion of the settlement. Such securities shall not be transferred to the Center or between Accounts with the concerned Broker nor shall it be pledged prior to that (Article 60) of the SDC's Instructions of Registration, Deposit and Settlement of Securities).

Principle (4- credit risk) and principle (11 -CSD) indicates that if SGF was not able to cover the securities in deficit on behalf of the concerned broker within a maximum period of five working days the ultimate option is to cancel the trades in case of default and reimburse the value of the bought securities to the buying broker on behalf of its client (Article 16/C) of the internal by-law of SGF and (Article 62/D) of the SDC's instructions of Registration, Deposit, and Settlement of Securities.

It is important to note that to date there has never failed trades.

The principle (4- credit risk) and principle (7- liquidity risk) indicate that if the Broker or the Custodian does not pay the amounts due to be paid to the Settlement Account on Settlement Day by nine (9:00) am., the Broker or Custodian shall be considered in breach of its obligations and the Settlement Guarantee Fund shall substitute that Broker or Custodian to fulfill those obligations. The SDC shall take the following measures (Article 82) of the SDC's instructions of Registration, Deposit, and Settlement of Securities:

- A- Transfer the amount-that has not been paid- from the Settlement Guarantee Fund account to the Center's Settlement Account.
- B- Inform the Commission and notify the Market to suspend the Broker from Trading.
- C- Suspend the services provided by the Center to the concerned Broker or Custodian.
- D- Impose a lien on the securities owned by the Broker or the Custodian for the benefit of the Settlement Guarantee Fund.
- E- Request the concerned Broker or Custodian to pay all its obligations due towards the Center and the Settlement Guarantee Fund including the delay charges and any expenses or costs incurred by the Center as a result of the breach of obligation.

These measures are also mentioned for brokers by (Article 62) of the SDC's instructions of Registration, Deposit, and Settlement of Securities.

Several principles shows that the Central Bank of Jordan is assigned as a settlement bank to receive/pay securities values, where all payments are processed through the "Real Time Gross Settlement System-Jordan" (RTGS-JO) via SWIFT. These principles are (4- credit risk), (7- liquidity risk), (8- settlement finality), and (9-money settlement).

The SDC holds two accounts with the settlement bank:

- The Liquidity reserve account (This amount shall be paid on T+1).
- The Settlement account (This amount shall be paid on T+2).

(Article 81/B) of the SDC's instructions of Registration, Deposit, and Settlement of Securities states that if the Broker does not pay the liquidity reserve amount on the (T+1), the SDC shall add that amount to the net amount that the Broker shall pay on Settlement Day (T+2) whereby the Broker is required to pay both amounts on Settlement Day

The other mechanisms that the SDC protect assets in case of a claim are placed against the participants are:

- The SDC maintains the participants' securities positions down to the level of beneficial owner and all participants required to segregate assets held for their own benefit from those they hold for their clients as mentioned in the principle (11 -CSD).
- If the membership of a Broker or Custodian is terminated, the SDC shall transfer the securities from the accounts under with the Broker or Custodian to the Main Accounts at the SDC (Article 42) of the SDC's instructions of Registration, Deposit, and Settlement of Securities.

As noted, there are several articles in various forced legislations and principles take into consideration the matter of defaulting.

13.1.3 How do the FMI's rules and procedures allow the FMI to promptly use any financial resources that it maintains for covering losses and containing liquidity pressures arising from default, including liquidity facilities?

As mentioned in Q.13.1.2, if the Broker or Custodian does not pay the cash amounts due as a result of his trading in the ASE at the Settlement Account within the period specified on Settlement date, it is considered in breach of its obligations and the SGF shall substitute that Broker or Custodian to fulfill those obligations.

In case the Broker default, the Chief Executive Officer shall undertake the following measures (Article 14) of the by-law of SGF:

1. Transfer the amount that the Broker or Custodians did not pay from the Fund the Broker period specified on Settlement Account.
2. Inform the Commission and notify the Market to suspend the Broker from trading.
3. Suspend the services provided by the Center to the concerned Broker.
4. Demand the concerned Broker to pay all the due cash amounts to the benefit of the Fund including the delay charges and any expenses or costs incurred by the Fund accordingly.
 - A- If the amount that the Fund paid on behalf of the Broker equals or is less than the cash contribution of the Broker in the Fund, the total amount shall be debited from that Broker's account in the Fund.
 - B- If the amount that the Fund paid on behalf of the Broker is less than the total value of the cash contribution and the bank guarantee jointly and is more than the cash contribution of that Broker in the Fund, the Fund shall take the following measures:
 1. Debit the entire cash contribution balance of the concerned Broker.
 2. Take all the necessary and immediate measures to liquidate the bank guarantee of the concerned Broker who defaulted on payment.
 - C- If the amount that the Fund paid on behalf of the Broker exceeded the total of the cash contribution and bank guarantee together, the Fund shall take the following measures:
 1. Debit the entire cash contribution balance of the concerned Broker.
 2. Take all the necessary and immediate measures to liquidate the bank guarantee of the concerned Broker.

3. The Fund will possess the bought securities whose value has not been paid for with a percentage equaling 120% of the amount that exceeds the total of the Broker's cash contribution and the bank guarantee provided by it.
- D- The Center may impose a lien on the securities owned by concerned Broker for the benefit of the Fund.

In case the Custodian default, the Chief Executive Officer shall undertake the following measures (Article 15) of the by-law of SGF:

1. Transfer the amount that the Custodian did not pay from the Fund's account to the Settlement Account.
2. Inform the Commission.
3. Suspend the services provided by the Center to the concerned Custodian.
4. Demand the concerned Custodian to pay all the due cash amounts to the benefit of the Fund including the delay charges and any expenses or costs incurred by the Fund accordingly.

- A- If the amount that the Fund paid on behalf of the Custodian equals or is less than the value of the guarantee determined for that Custodian in the Fund, the total amount shall be debited from that Custodian's account in the Fund.
- B- If the amount that the Fund paid on behalf of the Custodian exceeded the value of the guarantee determined for that Custodian in the Fund, the Fund shall take the following measures:
1. Take the necessary measures to debit the entire amount representing the Guarantee of the concerned Custodian.
 2. The Fund will possess the bought securities whose value has not been paid for with a percentage equaling 120% of the amount that exceeds the total of the Custodian's guarantee in the Fund.
- C- The Center may impose a lien on the securities owned by concerned Custodian for the benefit of the Fund.

(Article16) of the by-law of the SGF indicates that the transactions that fail to settle on T+1 will typically be resolved by T+2 through the Settlement Guarantee Fund (SGF) and a buy-in or sell-out process which is initiated by the SDC on T+2. If the broker/custodian does not fulfil their obligations, the SGF takes the necessary measures to resolve the default. In case of a trade rejection by the selling custodian prior to the market deadline of 3.00pm on T+1, brokers will have until 9.00am on T+2 to pledge the securities for settlement. If the shares are not available by this time a buy-in will be initiated.

Furthermore, this article states that if SGF was not able to cover the securities in deficit on behalf of the concerned broker within a maximum period of five working days the ultimate option is to cancel the trades in case of default and reimburse the value of the bought securities to the buying broker on behalf of its client. It is possible upon the decision of the Fund's Board of Directors to reimburse the buying client upon his justified request for cancellation of trading contract by (1%) of the market value of the securities in deficit with a maximum of (25,000) twenty five thousand Dinars.

13.1.4 How do the FMI's rules and procedures address the order in which the financial resources can be used?

Please refer to the Q.13.1.3

13.1.5 How do the FMI's rules and procedures address the replenishment of resources following a default?

Please refer to the Q.13.1.3

As indicated in the principle (4 –credit risk) and principle (5- collaterals), the contributions in the SGF that are provided by the brokers are divided into cash contributions and non- conditional bank guarantees (article 8/A) of the bylaw of the SGF.

(Article 10) of the by-law of the SGF states that the cash contribution amount shall be re-calculated every three months at the end of March, June, September and December of each year.

Article (11) of the same by-law states that the bank guarantee amount for all Brokers shall be re-calculated once every twelve months for brokers that have been trading in securities for twelve months.

The equations of calculating the guarantees include the Settlement amounts that in turn reflect the trading volume.

As for Custodians, they provide Open Standing Instructions for bank Custodians and bank guarantee for Non-bank Custodians.

(Article 21) states that subject to the provision of Articles (14) and (15) of this By-Law, the SGF's liability for covering any deficit is limited to the total guarantees of the concerned Members in the Fund.

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.

13.2.1 Does the FMI's management have internal plans that clearly delineate the roles and responsibilities for addressing a default? What are these plans?

Yes, the SDC management has internal plans that clearly delineate the roles and responsibilities for addressing a default.

As mentioned in the previous questions, the SDC has legislations that regulate the default, and has many procedures for addressing a default.

(Article 81) of the Instructions of Registration, Deposit and Settlement of Securities indicates that the SDC takes all necessary measures from the moment of defaulting which starts when the Broker does not pay the liquidity reserve by the specified time on (T+1), therefore, the SDC take any of the following measures:

- 1 Inform the Commission and notify the Market to suspend the Broker from Trading.
- 2 Suspend all services provided to that Broker by the SDC.

If the Broker does not pay the liquidity reserve amount by (1:00) pm. on

(T+1), the SDC has also procedures to solve the causes of default immediately according to the provisions of legislations. Therefore, the SDC take the necessary actions by adding that amount to the net amount that the Broker shall pay on Settlement Day (T+2) whereby the Broker is required to pay both amounts on Settlement Day.

In the same context, the management of the SDC ensures that it has sufficient well trained personnel to implement its procedures in a timely matter.

The SDC has many arrangements to remove any potential conflicts of interests. Among these arrangements, the SDC passes through three levels of security phases for each operation: saving, verifying and posting.

13.2.2 What type of communication procedures does the FMI have in order to reach in a timely manner all relevant stakeholders, including regulators, supervisors and overseers?

- The SDC communicates with its members (brokers and custodians) through their dedicated electronic systems (broker system and custodian system), and (Article 77) of the SDC's instructions of Registration, Deposit, and Settlement of Securities define that on each trading day, the SDC shall transmit an electronic notice to each Broker and each Custodian, the notice shall include the following data and information:
 - A- The net amount due to be received or paid by the Broker or Custodian for the Settlement Purpose.
 - B- The amount to be paid by the Broker as Liquidity Reserve in the Settlement Account
 - C- The amount due to be paid by the Broker or Custodian in the Settlement Account on the Settlement day.
- The SDC sends official letters in specific cases to dedicated emails and fax of members.
- The SDC keeps the local regulator (JSC) posted about defaults and other matters through its electronic surveillance system that the SDC provided to the JSC.

As mentioned in the principle (4 –credit risk) regarding payments that are processed through RTGS-JO via SWIFT, and we indicated that to date, the participant has not faced any credit loss, where the SDC is connecting with RTGS-JO through (VPN- Virtual Private Network) to be a back-up line in case the SWIFT system breaks down. Therefore, the (CBJ) can send and receive inter-banks transfer messages over the network (VPN).

13.2.3 How frequently are the internal plans to address a default reviewed? What is the governance arrangement around these plans?

The SDC procedures, plans and regulations of default are reviewed and updated as the need arises to reflect changes in the practices.

Key consideration 3

An FMI should publicly disclose key aspects of its default rules and procedures.

13.3.1 How are the key aspects of the FMI's participant default rules and procedures made publicly available? How do they address:

- a) the circumstances in which action may be taken;
- b) who may take those actions;
- c) the scope of the actions which may be taken, including the treatment of both proprietary and customer positions, funds and assets;
- d) the mechanisms to address an FMI's obligations to non-defaulting participants;
- e) where direct relationships exist with participants' customers, the mechanisms to help address the defaulting participant's obligations to its customers?

The SDC has on its website a "Legislations" section that includes all relevant and applicable regulations to the SDC's operation including default. They include the circumstances in which action may be taken, who may take those actions, etc..

The SDC also discloses aspects through memos.

Key consideration 4

An FMI should involve its participants and other stakeholders in the testing and review of the FMI's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.

13.4.1 How does the FMI engage with its participants and other relevant stakeholders in the testing and review of its participant default procedures? How frequently does it conduct such tests and reviews? How are these tests results used? To what extent are the results shared with the board, risk committee and relevant authorities?

In case of amendments and changes of any procedures, systems, legislation, they will be circulated to the members and get their feedback before approving it.

In other word, the SDC is highly interested in the views of members; however, they are not part of testing.

13.4.2 What range of potential participant default scenarios and procedures do these tests cover? To what extent does the FMI test the implementation of the resolution regime for its participants?

Not applicable.

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.

(Applicable FMIs: CCP)

The SDC is a CSD and an SSS, the SDC does not act as a CCP currently.

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 materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

(Applicable FMIs: PS, CSD, SSS, CCP, TR)

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.

15.1.1 How does the FMI identify its general business risks? What general business risks has the FMI identified?

General business risks are associated with the SDC's ability to maintain its core business functionalities at all times and the integrity of its systems and continuity of its operations and maintaining its critical business assets.

It is worth mentioning that the SDC's strategy is to build up reserves to guard against any future possible claims or downturn in revenues and has amounted significant reserves over the years which are sufficient to ensure the continuation of its operations and services in case of general business losses.

15.1.2 How does the FMI monitor and manage its general business risks on an ongoing basis? Does the FMI's business risk assessment consider the potential effects on its cash flow and (in the case of a privately operated FMI) capital?

To face any potential general business risk that is linked to our business functionalities, the SDC takes many measures as follows:

- 1 Setting up and implementing the plan to safekeeping registers.**
- 2 Setting up an Emergency plan to deal with any exceptional circumstances.**
- 3 As for human errors, the SDC build systems to prevent these errors and minimizing their intervention, the SDC also pass through many levels of security phases for each operation (saving, verifying and posting) that are doing by many officers.**

The SDC's organizational scheme includes an Internal Audit Department that conducts periodic and continuous operational audits to ensure that the operation is valid, correct, and complete according to their procedures.

The SDC clearly understand its general business risks. Therefore, the SDC has many procedures to review these risks regularly and takes the corrective measures (if needed) such as:

- 1 Submitting regular (and as needed) reports to the management (as the case may be).**
- 2 Reviewing the budget annually to build up the necessary reserves and transferring the cash among items to face and solve any risks.**

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.

15.2.1 Does the FMI hold liquid net assets funded by equity so that it can continue operations and services as a going concern if it incurs general business losses?

Since 2012, the SDC has become a Government–budget entity, in the sense that it has to get approval from the government for the allocation of its expenses, however, depending on its financial resources, the SDC finances its strategic projects and manage its expenses duly. And to be able to meet its obligations, and to be able to specially manage and overcome any critical business risk or unexpected expenses, the SDC built fundamental cash reserves as opposed to not having a capital as such, due to its legal autonomy from being a non- for profit public utility. Therefore, the SDC has sufficient liquid net assets to use if a general business risk was incurred.

On the other hand as per the Securities law, any deficit in the revenues and expenditures account shall be covered from the general reserves. If the general reserves are insufficient to cover the deficit, it shall be covered by equal payments from the SDC's members; such payments shall be credited for members against net future revenues.

15.2.2 How does the FMI calculate the amount of liquid net assets funded by equity to cover its general business risks? How does the FMI determine the length of time and associated operating costs of achieving a recovery or orderly wind- down of critical operations and services?

The SDC operations and services have been never stopped as the SDC applies comprehensive BCDR plan in order to guarantee the continuity of operations in all circumstances according to the international standards and best practices.

This plan includes all factors such as costs.

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.

15.3.1 Has the FMI developed a plan to achieve a recovery or orderly wind-down, as appropriate? If so, what does this plan take into consideration (for example, the operational, technological and legal requirements for participants to establish and move to an alternative arrangement)?

SDC maintains a robust recovery plan, prioritizing operational resilience across key functions. The plan addresses operational, technological, and legal considerations. Operationally, it ensures the seamless continuation of critical SDC functions. Technologically, it focuses on adapting and optimizing infrastructure for a smooth recovery process; we also ensure that all technical prerequisites for activating recovery plan and transitioning to alternative arrangements are managed by SDC, ensuring stability and without service interruptions or member modifications. Legally, compliance with relevant requirements is strictly enforced.

15.3.2 What amount of liquid net assets funded by equity is the FMI holding for purposes of implementing this plan? How does the FMI determine whether this amount is sufficient for such implementation? Is this amount at a minimum equal to six months of the FMI's current operating expenses?

Yes, the SDC maintains reserves as a resource to cover any future possible claim or decline in revenues. The total reserve is well above the six months of SDC current operating expenses.

For more information, please refer to Q 15.2.1

15.3.3 How are the resources designated to cover business risks and losses separated from resources designated to cover participant defaults or other risks covered under the financial resources principles?

There is full segregation between the SDC own assets from assets of participants.

The SDC adopts many procedures cover the participant defaults; one of them is Settlement Guarantee Fund. Therefore, all details of the Fund procedure are available on the following link:

https://www.sdc.com.jo/english/index.php?option=com_content&task=view&id=101&Itemid=79

As JSC is the regulator of the market and the SDC is subject to the JSC's monitoring and supervision, JSC issued of the investor protection fund (IPF) Instructions. The fund's objective is to provide protection to investors in the Jordanian Capital market by indemnifying for losses due to financial services licensed companies' insolvency or acquisitions.

15.3.4 Does the FMI include equity held under international risk-based capital standards to cover general business risks?

N/A

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.

15.4.1 What is the composition of the FMI's liquid net assets funded by equity? How will the FMI convert these assets as needed into cash at little or no loss of value in adverse market conditions?

The reserves held for facing general business risks are by cash.

15.4.2 How does the FMI regularly assess the quality and liquidity of its liquid net assets funded by equity to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions?

Please refer to the Q 15.2.1

Every year, the SDC prepares its budget with precautions for all circumstances in addition to the dedicated item for risks.

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.

15.5.1 Has the FMI developed a plan to raise additional equity? What are the main features of the FMI's plan to raise additional equity should its equity fall close to or fall below the amount needed?

The SDC prepares the budget taking into consideration the values of its financial position, revenues and expenses, reserves, and cash flows.

The SDC finds new revenue sources, to build it in the budget; it requires providing new services according to projects and plans, the SDC works on.

15.5.2 How frequently is the plan to raise additional equity reviewed and updated?

Please refer to Q 15.5.1

15.5.3 What is the role of the FMI's board (or equivalent) in reviewing and approving the FMI's plan to raise additional equity if needed?

The SDC board of directors approves the following:

- 1 Strategic plan**
- 2 Financial expenses**
- 3 SDC budget.**
- 4 Adding new revenues.**

Principle 16: Custody and investment risks

An FMI should safeguard its own and its participants' assets and minimize 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.

(Applicable FMIs: PS, CSD, SSS, CCP)

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.

16.1.1 If the FMI uses custodians, how does the FMI select its custodians? What are the specific selection criteria the FMI uses, including supervision and regulation of these entities? How does the FMI monitor the custodians' adherence to these criteria?

The SDC does not keep its participants assets at any custodian bank or other entity, neither does it keep cash accounts for its participants. The SDC keeps its own assets at cash accounts with the CBJ. Such a structure and policy reduces custody and investment risks to a minimum.

Securities accounts of participants deposited at the SDC are opened at the level of beneficial owner as indicated in the principle (11-CSD).

The SDC maintains records that identify the assets of each participant and segregate its own assets from the assets of participants. This concept is supported by the (Rule17f-7).

16.1.2 How does the FMI verify that these entities have robust accounting practices, safekeeping procedures, and internal controls that fully protect its and its participants' assets?

Either SDC or Central Bank of Jordan has robust accounting practices, safekeeping procedures, and internal controls that fully protect assets.

Key consideration 2

An FMI should have prompt access to its assets and the assets provided by participants, when required.

16.2.1 How has the FMI established that it has a sound legal basis to support enforcement of its interest or ownership rights in assets held in custody?

As mentioned in Q 16.1.1, the SDC does not own securities whereas its cash accounts for settlement are opened with CBJ.

Art. 86 of the SL states that the SDC's funds and rights against others shall be deemed as domanial property, to be collected in accordance with the provisions of the Collection of Domanial Property Law in force.

16.2.2 How does the FMI ensure that it has prompt access to its assets, including securities that are held with a custodian in another time zone or legal jurisdiction, in the event of participant default?

Not applicable.

Please refer to Q 16.1.1

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.

16.3.1 How does the FMI evaluate and understand its exposures to its custodian banks? In managing those exposures, how does it take into account the full scope of its relationship with each custodian bank? For instance, does the FMI use multiple custodians for the safekeeping of its assets to diversify exposure to any single custodian? How does the FMI monitor concentration of risk exposures to its custodian banks?

Not applicable.

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.

16.4.1 How does the FMI ensure that its investment strategy is consistent with its overall risk management strategy? How and to whom does the FMI disclose its investment strategy?

Please refer to Q 16.1.1.

16.4.2 How does the FMI ensure on an ongoing basis that its investments are secured by, or are claims on, high-quality obligors?

Please refer to Q 16.1.1

16.4.3 How does the FMI consider its overall exposure to an obligor in choosing investments? What investments are subject to limits to avoid concentration of credit risk exposures?

Please refer to Q 16.1.1

16.4.4 Does the FMI invest participant assets in the participants' own securities or those of its affiliates?

No

16.4.5 How does the FMI ensure that its investments allow for quick liquidation with little, if any, adverse price effect?

Not applicable.

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 fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

(Applicable FMIs: PS, CSD, SSS, CCP, TR)

Key consideration 1

An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.

17.1.1 What are the FMI's policies and processes for identifying the plausible sources of operational risks? How do the FMI's processes identify plausible sources of operational risks, whether these risks arise from internal sources (for example, the arrangements of the system itself, including human resources), from the FMI's participants or from external sources?

Identifying and recognizing plausible sources of operational risks happens during the following phases:

1. The analysis study for the business and operational task or enhancement, during which all concerned departments are involved, studying the different scenarios and assumptions, analyzing theses and building solutions to deal with each scenario of risk (if occurred) taking into consideration the legal, operational, financial, and reputational impact on the institution.
2. Testing the scenarios by separate department (QA/ Audit) to ensure the risk related to scenarios are monitored, checked, and duly handled within systematic-automated form as possible, through certain checks and balances and additional restrictions to prevent human error or minimizing it to the maximum level.
3. Recording and documenting all risk related business cases or incidents the approach we used to avoid or minimize its impact to have a risk register for each scenario and operation.

17.1.2 What sources of operational risks has the FMI identified? What single points of failure in its operations has the FMI identified?

The operational risks include risks related to human resources, management, systems, operations, and suppliers.

17.1.3 How does the FMI monitor and manage the identified operational risks? Where are these systems, policies, procedures and controls documented?

Please refer to answer 17.1.1, in addition CEO and key personnel at all levels and areas are actively involved in periodic risk assessment-manually, on demand- reviews by dedicated committee and board approval. The work is performed in following steps:

- Identification
- Description (including category and type)
- Assessment (impact, probability)
- Management strategy (action plan, responsibilities, due date)
- Identification of current controls
- Distribution of documents to participants

Risk management systems, policies, procedures and controls are documented and are being kept on internal network, where every employee can access them.

17.1.4 What policies, processes and controls does the FMI employ that are designed to ensure that operational procedures are implemented appropriately? To what extent do the FMI's systems, policies, processes and controls take into consideration relevant international, national and industry-level operational risk management standards?

Comprehensive set of documents are prepared, following international standards and best practices, to meet global legal and regulatory obligations and to protect the confidentiality, integrity and availability for all the products and services both internally and externally.

These include regular security awareness trainings policies, guidelines and standards:

- **IT Security Policy**
- **Internal Control**
- **Business continuity plan**
- **Access Control Standard**
- **Application Security Standard**
- **Logging and Monitoring Standard**
- **Network Security Standard**
- **Password Standard and protocols**
- **Security Awareness Training Guideline**
- **Internal and external audit including IT audit**
- **As mentioned in Q17.1.1, the SDC have a risk register includes all risk related business cases.**
- **The SDC also has taken many steps to enhance and improve data and operation security and to protect all digital assets from cyber-attacks.**

17.1.5 What are the FMI's human resources policies to hire, train and retain qualified personnel, and how do such policies mitigate the effects of high rates of personnel turnover or key-person risk? How do the FMI's human resources and risk management policies address fraud prevention?

All the human resources policies are stated in the by-law of the Civil Service. However, special dedicated professionals can be hired within exceptional terms if needed and justified

Also we have a training session that is provided internally and externally about best practices for keeping our information and physical property secure

17.1.6 How do the FMI's change management and project management policies and processes mitigate the risks that changes and major projects inadvertently affect the smooth functioning of the system?

Change management and project management policies within SDC are specifically designed to mitigate risks that changes and major projects might pose to the smooth functioning of the system. Here's how these policies and processes work to achieve this:

- 1. Risk Assessment and Planning: Before implementing any change or embarking on a major project, thorough risk assessments are conducted. This includes identifying potential impacts on the system's functionality, security, and stability. Risk mitigation strategies are developed based on these assessments.**
- 2. Change Control Procedures: SDC establish structured change control procedures that involve a series of checks and balances. Proposed changes under go rigorous evaluation, including impact analysis, feasibility studies, and risk assessments, before approval. Only authorized changes proceed to implementation.**
- 3. Testing and Validation: Changes, updates, or new projects typically undergo extensive testing in controlled environments that replicate the production environment. This testing ensures that the changes won't adversely affect system functionality or introduce vulnerabilities.**

4. **Incremental Implementation:** Major changes or projects are often implemented incrementally or in phases rather than all at once. This approach allows for monitoring and addressing issues early in the process, minimizing the impact on the overall system.
5. **Stakeholder Communication and Involvement:** Effective communication with stakeholders, including system users, is essential. Involving stakeholders in the change management and project management processes helps gather feedback and address concerns, ensuring smoother transitions.
6. **Contingency Plans:** Contingency plans are in place to address unforeseen issues or failures resulting from changes or projects. These plans outline steps to revert to previous states or alternative solutions in case the changes negatively impact system functioning.
7. **Change Documentation and Auditing:** All changes and projects are documented comprehensively. This documentation includes details about the changes made, their purpose, testing results, and implementation procedures. Auditing these records ensures accountability and provides a reference in case of issues.
8. **Project Governance and Oversight:** Robust project governance structures are established to oversee major projects. This includes dedicated project managers, steering committees, or oversight boards that ensure adherence to timelines, budgets, and quality standards.
9. **Training and Transition Support:** Before implementing changes or launching major projects, training programs are often conducted for system users and support staff. This ensures they are prepared for any adjustments and can handle new functionalities or processes effectively.
10. **Post-Implementation Reviews:** After implementation, post-mortem reviews are conducted to assess the success of the changes or projects. This review helps identify areas for improvement and captures lessons learned for future initiatives.

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.

17.2.1 How has the board of directors defined the key roles and responsibilities for operational risk management?

Within the framework of the Board of Directors' discharging its duties and powers related to setting the necessary policies to ensure the sustainability and development of the SDC's business, the Board of Directors paid great attention to the aspect related to managing operational risks related to the SDC's various affairs. During the year 2023, the Board of Directors developed the administrative organization and organizational structure with the aim of introducing an organizational unit specialized in risk management that includes defining the main tasks of this organizational unit and its administrative connection with the Board of Directors directly to enhance the independence and objectivity of the risk management activity and enable it to carry out the required functions in the context of preparing risk management methodologies and policies and reviewing all processes, legislation and procedures in accordance with international standards and best practices followed in this regard.

17.2.2 Does the FMI's board explicitly review and endorse the FMI's operational risk management framework?
How frequently does the board review and endorse the FMI's operational risk management framework?

The Board of Directors assigned the Risk Management Unit, which was introduced in the administrative organization and organizational structure approved by the Board of Directors in the year 2023, to carry out the main tasks related to the preparation and development of documents related to risk management policies and procedures related to all of the SDC's affairs in terms of financial, administrative, operational, technical, and

informational aspects, and developing and implementing the necessary executive procedures to identify, measure and follow up on all types of risks, establish procedures for managing those risks, mitigate their effects and keep them within acceptable limits, develop and implement policies and procedures for information security and protection procedures, evaluate them, develop solutions to address and review them periodically, and prepare reports that are presented to the Board of Directors periodically and annually on the results of risk management's work. Risks include the proposals and recommendations necessary to implement the corrective measures contained in these reports and develop risk management policies and procedures to be consistent with the requirements of ensuring the sustainability of the SDC's business, functions and activities and reducing the impact of the potential risks.

17.2.3 How does the FMI review, audit and test its systems, policies, procedures and controls, including its operational risk management arrangements with participants? How frequently does the FMI conduct these reviews, audits and tests with participants?

The SDC's organizational scheme includes an Internal Audit Department that conducts operational audits in addition to the external audit.

The SDC conducts BC tests one to two times a year including SDC members and all departments involved in the testing scenario, during which SDC users are redirected from the main production site to the BC site. Recent test was successful and users were able to continue their daily operational work in a regular manner and without any obstacles. Moreover, the SDC conducts regular security audits and continuously monitors its systems and network for suspicious activities.

17.2.4 To what extent, where relevant, is the FMI's operational risk management framework subject to external audit?

The SDC's operational risk management framework is not subject to external audit, but it has been reviewed by the JSC through reports and monitor system.

Recently, the Board of Directors of the SDC approved the new organizational structure, which included introducing the unit dedicated for risk management that is concerned with monitoring and analyzing all risks of the SDC's business and issuing the necessary reports regarding the procedures for managing those risks and reducing their effects.

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.

17.3.1 What are the FMI's operational reliability objectives, both qualitative and quantitative? Where and how are they documented?

For each functional operation SDC have a documented formal process with objectives, KPIs, time frame, deliverables and participant to ensure that all processes follow the approved standard.

17.3.2 How do these objectives ensure a high degree of operational reliability?

By achieving the goals of the institution and enhancing and simplifying the targeted goals.

17.3.3 What are the policies in place that are designed to achieve the FMI's operational reliability objectives to ensure that the FMI takes appropriate action as needed?

There are multiple policies and programs that are designed to achieve objectives. These programs are determined based on plans with times framework, applied based on priorities and its effect on achieving establishment objectives. Policies and procedures are implemented to ensure the integrity, efficiency, and safety of payment and settlement systems. This might involve strict protocols for transaction processing, reconciliation, and reporting also there are a DR&BC plans to guarantee the contiguity of work, and we have stringent cybersecurity measures in place to protect critical infrastructure and sensitive data.

Key consideration 4

An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.

17.4.1 How does the FMI review, audit and test the scalability and adequacy of its capacity to handle, at a minimum, projected stress volumes? How frequently does the FMI conduct these reviews, audits and tests?

The SDC manages capacity during the normal operation of the system, it constantly monitors and assesses the use of storage, CPUs and memory for the resources when threshold reached for any changes, SDC verifies that there will be no problem with processing performance associated with the change.

And to ensure that all systems operations carried out properly, there is a periodic assessment from outside professionals through maintenance contracts.

The SDC reviews periodically the formulas of collaterals provided by the brokers that are divided into cash contribution (re-calculated every three months), and bank guarantee (re-calculated once every twelve months) and specially the SDC made re-calculation for specific broker. The aim of these re-calculations is to manage the settlement risks.

17.4.2 How are situations where operational capacity is neared or exceeded addressed?

IT infrastructure has been implemented based on cluster and load balance technologies for high availability.

The Settlement Guarantee Fund (SGF) is not used for brokers who do not meet its requirements (collaterals).

Key consideration 5

An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.

17.5.1 What are the FMI's policies and processes, including change management and project management policies and processes, for addressing the plausible sources of physical vulnerabilities and threats on an ongoing basis?

The SDC prepared a physical and information security policies approved by the board of directors which address all potential vulnerabilities and threats.

However, controls are implemented with regard to key risks and are implemented within written procedures.

17.5.2 Do the FMI's policies, processes, controls and testing appropriately take into consideration relevant international, national and industry-level standards for physical security?

Yes, SDC prepared a set of policies according to National and industry-level standards such as ISO 27k which is an international standard.

17.5.3 What are the FMI's policies and processes, including change management and project management policies and processes, for addressing the plausible sources of information security vulnerabilities and threats on an ongoing basis?

The SDC typically have robust policies and processes in place to address information security vulnerabilities and threats on an ongoing basis. These encompass various areas including change management, project management, and general information security protocols:

- 1. Risk Assessment and Analysis: SDC regularly conduct comprehensive risk assessments to identify potential information security vulnerabilities and threats. This involves analyzing both internal and external factors that could compromise security.**
- 2. Change Management Policies: SDC have stringent change management policies to evaluate and implement changes to systems, processes, or infrastructure. These policies often involve thorough testing, risk assessment, and approval processes before any changes are deployed to minimize the risk of introducing vulnerabilities.**
- 3. Project Management Protocols: When undertaking new projects or initiatives, SDC follow structured project management frameworks that include dedicated security considerations. Security requirements and controls are integrated into the project lifecycle from planning to execution and monitoring.**
- 4. Security by Design: SDC emphasize building security into their systems and applications from the outset. Security is not an afterthought but an integral part of the design and development process.**
- 5. Regular Security Updates and Patch Management: SDC stay vigilant with software and system updates to patch known vulnerabilities promptly. Patch management policies ensure that systems are up-to-date with the latest security patches and fixes.**
- 6. Access Controls and Privileged Access Management: Strict access controls are implemented to limit access to sensitive information. Privileged access management ensures that only authorized personnel have elevated system access and that their activities are closely monitored.**
- 7. Incident Response and Monitoring: SDC have established incident response plans to swiftly address security incidents. Continuous monitoring of systems, networks, and transactions helps detect and respond to threats in real-time.**
- 8. Employee Training and Awareness: Training programs are conducted regularly to educate employees about security best practices, potential threats, and their role in maintaining information security.**
- 9. Compliance with Standards and Regulations: SDC adhere to industry standards and regulatory requirements pertaining to information security. Compliance with frameworks such as ISO 27001, NIST Cybersecurity Framework, or specific financial regulations is a priority.**

These policies and processes are regularly reviewed, updated, and tested to adapt to evolving security threats and ensure the highest level of protection for sensitive financial data and infrastructure.

17.5.4 Do the FMI's policies, processes, controls and testing appropriately take into consideration relevant international, national and industry-level standards for information security?

Yes, SDC prepared a set of policies according to National standards such as "The National Cybersecurity Framework of the Hashemite Kingdom of Jordan", and industry-level standards such as ISO 27k which is an international standard.

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.

17.6.1 How and to what extent does the FMI's business continuity plan reflect objectives, policies and procedures that allow for the rapid recovery and timely resumption of critical operations following a wide-scale or major disruption?

The SDC business continuity plan (BCP) is designed to ensure the rapid recovery and timely resumption of critical operations following wide-scale or major disruptions. Here's how the BCP typically reflects objectives, policies, and procedures to achieve this:

- 1. Objective Alignment:** The BCP aligns with the overarching objective of minimizing disruption to critical operations. It defines specific recovery time objectives (RTOs) and recovery point objectives (RPOs) for various systems and processes, indicating the maximum acceptable downtime and data loss, for the SDC core business operation the RPO is equal Zero and the RTO less than 30 minutes
- 2. Risk Assessment and Impact Analysis:** The BCP incorporates a thorough risk assessment and impact analysis to identify potential scenarios and their potential effects on operations. This helps prioritize critical functions and resources for recovery efforts.
- 3. Redundancy and Resilience:** Policies and procedures within the BCP include measures for redundancy and resilience. This involves having backup systems, data centers, and failover mechanisms to ensure continuous operation in the event of a disruption.
- 4. Clear Roles and Responsibilities:** The plan outlines clear roles and responsibilities for employees during a crisis. This includes designated teams or individuals responsible for activating the BCP, coordinating recovery efforts, and communicating with stakeholders.
- 5. Communication Protocols:** Procedures for effective communication during a crisis are established within the BCP. This includes internal communication channels to notify and update staff, as well as external communication strategies to keep stakeholders informed.
- 6. Testing and Training:** Regular testing and simulation exercises are conducted to validate the effectiveness of the BCP. Training programs ensure that employees are familiar with their roles and responsibilities in the event of a disruption.
- 7. Alternative Work Arrangements:** The plan includes provisions for alternative work arrangements such as remote work or temporary facilities to ensure critical operations can continue if primary locations are inaccessible.
- 8. Supplier and Vendor Continuity:** Policies address continuity with third-party suppliers and vendors, ensuring their BCPs align with the SDC's resilience requirements.
- 9. Regulatory Compliance:** The BCP adheres to regulatory requirements and industry standards related to business continuity and disaster recovery, ensuring that the SDC remains compliant with relevant regulations.
- 10. Continuous Improvement:** The BCP is a living document that undergoes regular reviews and updates. Lessons learned from testing, real incidents, or changes in the operating environment are incorporated to enhance its effectiveness.
- 11. Scalability and Adaptability:** The plan considers the scalability and adaptability of response efforts to handle both localized and wide-scale disruptions, providing flexibility in response strategies.

The SDC has implemented Business Continuity (BC) and Disaster Recovery (DR) solution based on Active-Active high availability concept using three separate Datacenter sites. The business resumption site located 3km from main datacenter connecting each other with dark fiber, and the disaster recovery site is located 30km from main site

The production site and the data centers for the business continuity site are designed to have zero data loss, and IT infrastructure has been implemented based on cluster and load balance technologies for high availability and secure infrastructure. SDC has been conducting multiple DR test scenarios during the year 2022 to ensure the sufficiency of the BC and DR arrangements during adverse events.

The DR and BC sites can be activated in less than 30 minutes with zero-data-loss.

17.6.2 How and to what extent is the FMI's business continuity plan designed to enable critical IT systems to resume operations within two hours following disruptive events, and to enable the FMI to facilitate or complete settlement by the end of the day even in extreme circumstances?

Refer to 17.6.1

17.6.3 How is the contingency plan designed to ensure that the status of all transactions can be identified in a timely manner, at the time of the disruption; and if there is a possibility of data loss, what are the procedures to deal with such loss (for example, reconciliation with participants or third parties)?

Refer to 17.6.1

17.6.4 How do the FMI's crisis management procedures address the need for effective communications internally and with key external stakeholders and authorities?

By identifying a key person for each operation and process with the external/internal communication list.

17.6.5 How does the FMI's business continuity plan incorporate the use of a secondary site (including ensuring that the secondary site has sufficient resources, capabilities, functionalities and appropriate staffing arrangements)? To what extent is the secondary site located a sufficient geographic distance from the primary site such that it has a distinct risk profile?

Refer to 17.6.1

17.6.6 Has the FMI considered alternative arrangements (such as manual, paper- based procedures or other alternatives) to allow the processing of time-critical transactions in extreme circumstances?

Yes, all critical operations have alternative arrangements and ready to be executed once any failure appeared.

17.6.7 How are the FMI's business continuity and contingency arrangements reviewed and tested, including with respect to scenarios related to wide-scale and major disruptions? How frequently are these arrangements reviewed and tested?

The BC /DR plans documents are available to staff and participants for any system interruption will be announced to all participants via email, fax, or public account.

SDC has been conducting multiple DR test scenarios during the year 2022 to ensure the sufficiency of the BC and DR arrangements during adverse events. These tests include participants According to available data.

17.6.8 How does the review and testing of the FMI’s business continuity and contingency arrangements involve the FMI’s participants, critical service providers and linked FMIs as relevant? How frequently are the FMI’s participants, critical service providers and linked FMIs involved in the review and testing?

Refer 17.6.7

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.

17.7.1 What risks has the FMI identified to its operations arising from its key participants, other FMIs, and service and utility providers? How and to what extent does the FMI monitor and manage these risks?

The following risks and management policies are identified in terms of services and utility providers:

Risk	Management Policy
Disconnection in internet services	there are two service providers,
Electricity service	In case of any interruption in electricity, SDC has UPS in place and power generators will start automatically.
Utility providers	Maintenance contracts guarantee any type of failure in terms of hardware and software.
Any other type of failures	Disaster Recovery and business continuity plan
Broker default	Settlement guarantee fund
RTGS break down	Emergency plans

17.7.2 If the FMI has outsourced services critical to its operations, how and to what extent does the FMI ensure that the operations of a critical service provider meet the same reliability and contingency requirements they would need to meet if they were provided internally?

The core business of the SDC (SCORPIO) is built internally, thus, we ensure that the operations of a critical service provider meet the same reliability and contingency requirements.

In addition there is an extensive internal Information Security and Internal Audit team responsible for continuously auditing and verifying IT Security and compliance.

17.7.3 How and to what extent does the FMI identify, monitor and mitigate the risks it may pose to another FMI?

SDC will notify the key participants of the special circumstances, and activate the related emergency plan with these FMIs.

17.7.4 To what extent does the FMI coordinate its business continuity arrangements with those of other interdependent FMIs?

Refer to 17.7.3

Principle 18: Access and participation requirements

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

(Applicable FMIs: PS, CSD, SSS, CCP, TR)

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.

18.1.1 What are the FMI's criteria and requirements for participation (such as operational, financial and legal requirements)?

Article (80) of SL states that participation in the SDC is mandatory for all Jordanian public shareholding companies, brokers, custodians, and any other entity determined by the Jordan Securities Commission - JSC (regulator) . The same is mentioned in Article (7) of the SDC Internal by law and Article (3) of the SDC internal by law of the membership and code of conduct.

The criteria to become a participant have been outlined in several legislations such as the internal by law of the Membership and Code of Conduct, by law of the Settlement Guarantee Fund, etc.... These legislations require each member to meet certain procedural conditions that are required from members. However, the first step is to be a licensed member, each member should comply with the requirements of the JSC for Registration and /or licenses.

The participation in the SDC is mandatory for all public shareholding companies, brokers, custodians, and any other entity determined by JSC.

Articles in the SDC's Internal by law of the Membership and Code of Conduct are stipulated the conditions of acceptance of the membership, suspension, restriction, and termination.

The member has to submit an official form to the SDC that includes their acknowledgment and approval to abide by the SDC's rules, regulations, and decisions thereto. Such acknowledgment shall be signed by the authorized signatory duly. This written commitment also confirming it paying the financial obligations to the SDC and the Settlement Guarantee Fund upon request.

Articles in the SDC's by law of the proceeds determined the amounts; the SDC shall collect for the membership.

It is worth mentioning that according to the rule 17f-7, there are same conditions apply to all participants regarding many aspects such as the safekeeping assets.

18.1.2 How do these criteria and requirements allow for fair and open access to the FMI's services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements?

The participation criteria are transparent, objective, and non-discriminatory. The Board of Directors shall issue, upon the recommendation of the Chief Executive Officer, its decision accepting or refusing the membership

within a month from the submission of the membership application subject to the rejection decision specifying the reasons for the rejection (Article 3/C) of the SDC's Internal by law of the Membership and Code of Conduct.

As mentioned in Q 18.1.1, to become a participant, it has been outlined in the instructions of licenses issued by the Jordan Securities Commission (regulator). According to this instruction, each participant should comply with the requirements that are related to control any risks in the market including capital adequacy, violations, collaterals, ..etc.

Therefore, all accepted participants can access to the SDC's services. The SDC provides mainly these services:

1. Holding the ownership register of the issuers.
2. Clearing and settlement for securities traded on the market.
3. Managing the contributions of the Settlement Guarantee Fund.
4. Corporate actions processing including Increase/ Decrease of capital, Stock Splits and Merger.
5. Providing e-services which is members' services including mailbox and members' area.
6. Real time dissemination of information that is updated on daily basis such as board members' names, holdings and trades, major shareholders, financial figures and statistical data.
7. Allocating ISIN, CFI, and FISN for all issued securities.
8. Providing each participant with secured system (SCORPIO). Therefore, they are able to view updated balances on a daily basis and therefore, reconcile with their records at any time by applying the International Standards and best practices in the field of cybersecurity.

18.1.3 For a TR, how do the terms of access for use of its services help ensure that competition and innovation in post-trade processing are not impaired? How are these terms designed to support interconnectivity with other FMIs and service providers, where requested?

N/A

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 endeavor to set requirements that have the least-restrictive impact on access that circumstances permit.

18.2.1 How are the participation requirements for the FMI justified in terms of the safety and efficiency of the FMI and its role in the markets it serves, and tailored to and commensurate with the FMI's specific risks?

Please refer to Q 18.1.1

18.2.2 How are the participation requirements for the FMI justified in terms of the safety and efficiency of the FMI and its role in the markets it serves, and tailored to and commensurate with the FMI's specific risks?

Yes, the Securities Law has specified the entities that obligated to join the SDC's membership based on the legal form and in light of the licenses granted to them by the JSC. This Law obligates public shareholding companies and financial services companies licensed by the JSC to be members of the SDC.

18.2.3 Are all classes of participants subject to the same access criteria? If not, what is the rationale for the different criteria (for example, size or type of activity, additional requirements for participants that act on behalf of third parties, and additional requirements for participants that are non-regulated entities)?

Yes, all classes of participants subject to the same access criteria.

The acceptable collateral varies by type of member, with individual minimums calculated in accordance with a formula, which takes into consideration their projected amounts due at settlement.

These formulas are indicated in the SDC by laws of SGF.

Article (8/A) of the bylaw of the SGF state that the contributions in the Fund that are provided by the brokers are divided into cash contributions and non- conditional bank guarantees.

A. Article (9) of the internal By-Law of the Settlement Guarantee Fund (SGF) stated that the bank guarantee that the Broker should provide shall be calculated on the basis of the average net amounts due to be paid by the Broker in favor of the settlement as a result of its securities trading transactions through the Market for a period of twelve months with a minimum of (50,000) fifty thousand Dinars in accordance with the following formula:

Amount of the bank guarantee (G)= (A x Px S) ≥ (50,000) Dinars.

Where A: is the daily average of the net amounts due to be paid by the Broker in favor of the settlement for twelve months;

P: is the percentage of days that the Broker had to pay amounts in favor of the settlement and is calculated by dividing the number of days that the broker had to pay amounts in favor of the settlement by the number of trading days within the period of twelve months.

S: is the settlement period.

B. The cash contribution that the Broker should pay to the Fund shall be calculated on the basis of the net amounts due to be paid by the Broker in favor of the settlement as a result of trading in securities through the Market for the last three months subject to the amount not being less than (25,000) twenty five thousand Dinars in accordance with the following formula:

The cash contribution amount = (X x Y x S) – G ≥ (25,000) Dinars.

Where X: is the daily average net amounts to be paid by the Broker in favor of the settlement for the last three months.

Y: is the percentage of days that the broker had to pay amounts for settlement for the last three months and is calculated by dividing the number of days in which the broker had to pay amounts in favor of the settlement by the number of trading days in that period.

S: is the period of settlement.

G: represents the amount of the bank guarantee calculated in accordance with the provision of Paragraph (A) of this Article.

C. The following trading contracts shall be excluded from the broker's securities trading transactions for the purposes of calculating the average net amounts to be paid by the broker in favor of the settlement referred to in paragraphs (A) and (B) of this article:

✓ **The trading contracts referred to in Article (5) of this By-Law.**

- ✓ The trading contracts related to custody accounts that the custodian agrees to settle according to the instructions issued by the Center.
- D. The amount of the bank guarantee and the cash contribution shall be rounded up in increase to the approximate (1,000) one thousand Dinars.
- E. The amounts referred to in Paragraph (B) of this Article shall be credited to the cash contribution account of the concerned Broker.

As for Custodians, Article (8/C) stated that the Fund's Board of Directors shall determine the Guarantees that the Custodians should provide the SDC for the benefit of the Fund.

In this regard, the Bank custodians provide the SDC with Open Standing Instructions whereas Non-bank custodians provides bank guarantee.

18.2.4 How are the access restrictions and requirements reviewed to ensure that they have the least restrictive access that circumstances permit, consistent with maintaining acceptable risk controls? How frequently is this review conducted?

The restrictions and requirements are generally stable; however, revision can be taken either due to new types of membership or based on actual.

18.2.5 How are participation criteria, including restrictions in participation, publicly disclosed?

All legislations including the requirements are published in the JSC website.

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.

18.3.1 How does the FMI monitor its participants' ongoing compliance with the access criteria? How are the FMI's policies designed to ensure that the information it uses to monitor compliance with participation criteria is timely and accurate?

The process of monitoring the licensing entities and following-up their responsibilities including the requirements of licensing, or disclosure, or capital adequacy, etc... is fully the responsibility of the regulator – JSC and they are reviewed on annual basis.

All JSC's legislations including the instruction of Licensing and Registration are available on its website (www.jsc.gov.jo).

As the first step for each member is the licensing, then the SDC follows-up members (brokers and custodians) periodically and daily regarding their commitments of settlement and takes all measures on specified time.

The SDC has the authority to impose risk controls on participants who do not fulfill the participation criteria:

First:

The principle (4- credit risk) and principle (7- liquidity risk) indicate that if the Broker or the Custodian does not pay the amounts due to be paid to the Settlement Account on Settlement Day by nine (9:00) am., the Broker or Custodian shall be considered in breach of its obligations and the Settlement Guarantee Fund shall substitute that Broker or Custodian to fulfill those obligations. The SDC shall take the following measures (Article 82) of the SDC's instructions of Registration, Deposit, and Settlement of Securities:

- A. Transfer the amount-that has not been paid- from the Settlement Guarantee Fund account to the Center's Settlement Account.
- B. Inform the Commission and notify the Market to suspend the Broker from Trading.
- C. Suspend the services provided by the Center to the concerned Broker or Custodian.
- D. Impose a lien on the securities owned by the Broker or the Custodian for the benefit of the Settlement Guarantee Fund.
- E. Request the concerned Broker or Custodian to pay all its obligations due towards the Center and the Settlement Guarantee Fund including the delay charges and any expenses or costs incurred by the Center as a result of the breach of obligation.

Second: Suspension or Restriction

(Article 17/A) and (Article 23/A) of the SDC's Internal by law of the Membership and Code of Conduct are state the Center may suspend or restrict any activities, functions, responsibilities, operations or any of the services that it provides to the Broker/ Custodian:

- A. If the Broker/ Custodian does not fulfill its financial obligations during the specified period in accordance with this By-Law and the instructions issued by the Center.
- B. If the Broker/ Custodian losses its required operational or technical capability specified in the by-laws and instructions issued by the Center.
- C. If the Broker/ Custodian becomes unable to fulfill its financial obligations to the Center.
- D. If the Broker/ Custodian does not fulfill its obligations specified in the By-Law of the Settlement Guarantee Fund.
- E. In execution of the Law, by-Laws, instructions or resolutions issued pursuant thereto.

The concerned Broker/ Custodian shall be obligated to settle all the suspended transactions to which it is a party in thereto, and if it fails to do so, the Center shall take the necessary measures to settle the suspended transactions as it deems suitable and in a manner that fulfills the interest of other related parties without holding the Center responsible thereto. (Article 17/B) and (Article 23/B) of the same by law.

Third: Termination

(Article 9) of the SDC's Internal by law of the Membership and Code of Conduct are states that the membership of the public shareholding company at the Center shall terminate in any of the following cases:

- A. The issuance of a final decision to terminate its status as a public shareholding company.
- B. The issuance of a decision of the voluntary liquidation of the company or an irrevocable decision of compulsory liquidation.
- C. The termination of its juristic personality.

(Article 18) and (Article 24) of the SDC's Internal by law of the Membership and Code of Conduct are states that the membership of the Broker/ Custodian at the Center shall terminate in any of the following cases

- A. The membership of the Custodian shall terminate at the Center in any of the following cases:
- B. Cancellation of its license.
- C. Cancellation of its membership at the Market.
- D. Declaration of its bankruptcy or the issuance of a decision to liquidate it.
- E. Termination of its juristic personality.

If the membership of a Broker or Custodian is terminated, the SDC shall transfer the securities from the accounts under with the Broker or Custodian to the Main Accounts at the SDC (Article 42) of the SDC's instructions of Registration, Deposit, and Settlement of Securities.

The SL (Article 84/A) states if a Financial Broker, Dealer or SDC member is subject to a bankruptcy, liquidation or sequestration order, the SDC, before the commencement of the bankruptcy, liquidation, or sequestration proceedings pursuant to the legislation in force, shall take all appropriate measures to fulfill the settlement of any pending trading contracts to which such member was a party before issuance of that order. Such trading contracts, after the settlement thereof, shall be considered valid against third parties.

18.3.2 What are the FMI's policies for conducting enhanced surveillance of, or imposing additional controls on, a participant whose risk profile deteriorates?

Please refer to Q 18.3.1.

The Fund's Board of Directors may approve of the substitution of the bank guarantee with any other guarantee accepted by the Fund's Board of Directors and in accordance with the conditions specified by it.

18.3.3 What are the FMI's procedures for managing the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements?

Please refer to Q 18.3.1.

It is worth mentioning that the JSC bears the full responsibility for regulating all issues in the market.

18.3.4 How are the FMI's procedures for managing the suspension and orderly exit of a participant disclosed to the public?

These procedures are disclosed on the SDC website within legislations.

Principle 19: Tiered participation arrangements

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

(Applicable FMIs: PS, CSD, SSS, CCP, TR)

This principle is not applicable to the SDC. As there are no tiered participation arrangements in the CM.

Principle 20: FMI links

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

(Applicable FMIs: CSD, SSS, CCP, TR)

This principle is not applicable currently to the SDC.

Principle 21: Efficiency and effectiveness

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

(Applicable FMIs: PS, CSD, SSS, CCP, TR)

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.

21.1.1 How does the FMI determine whether its design (including its clearing and settlement arrangement, its operating structure, its delivery systems and technologies, and its individual services and products) is taking into account the needs of its participants and the markets it serves?

For an FMI to determine the design for its basic functionalities, in our case the clearing and settlement model, the operational procedures, the rules and regulations, timings, protocols, the registration function, depository, ..etc.

And since the SDC was empowered to handle the clearing and settlement functionalities, and commenced operations on May 1999, we planned our transition gradually to meet the market needs, and support the soundness of our Capital Market taking into consideration the International standards and the best practices in this domain, in addition to the orientation of the market.

On the registry side, establishing a Central Registry and a whole new unique set-up for client identification, the cleaning process was conducted with the involvement of the issuers, and they were provided with an electronic system to allow them to follow up and view their registers and any reflected changes, a process that took a lot of effort that resulted today to around (99.9%) of deposited share-books handled electrically in a dematerialized form with viewing access to the public shareholding companies, each related to their own register. This process was executed with full coordination with the issuers.

As for the clearing and settlement, it was crucial to adopt a BIS model 2, a T+2 cycle, moving the market from a cycle that could extended to T+7 relying on manual documentation of contracts and hand over of cash with lots of failed trades to a fully automated process with the Central Bank's involvement, payments handled through RTGS-SWIFT, DvP method, reaching to zero – failed trades, achieving finality of settlement and irrevocability of trades.

With other risk management tools in place also adopting best practices and International standards in this field. This supported moving the market to a more efficient and regulated one and did mitigate many of the risks that were held by market participants.

As for ongoing and new developments, rules and regulations, we always consult with our members and market participants to ensure we take into consideration their needs.

21.1.2 How does the FMI determine whether it is meeting the requirements and needs of its participants and other users and continues to meet those requirements as they change (for example, through the use of feedback mechanisms)?

To meet the requirements and needs of all participants and to raise the level of satisfaction, the SDC took the following measures:

- 1. Public announcement requesting from our members and market participants their feedback regarding any ongoing and new developments, rules and regulations, to ensure we take into consideration their needs.**
- 2. Internal evaluation within the SDC environment (SDC staff).**
- 3. Consultation with all participants regarding new requirements, changes in rules, procedures, and new products, etc.**
- 4. Feedback from the SDC general assembly on its annual meetings.**
- 5. Distribution of questionnaire to associations to study the market practices in the countries of the members of each association.**

Please also refer to Q 21.1.1

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.

21.2.1 What are the FMI's goals and objectives as far as the effectiveness of its operations is concerned?

The SDC aims to achieve the following objectives:

- 1. Enhance the confidence of investors in securities and enable them to follow-up their investments with ease by establishing a central registry to safe-keep the ownership of securities .**
- 2. Reduce risks related to settlement of trading transactions executed through the market by implementing by-laws, instructions and procedures that are fair, fast and safe.**

Its strategic plan includes projects that assist the SDC to meet the requirements and needs of all participants regarding its services and operations.

21.2.2 How does the FMI ensure that it has clearly defined goals and objectives that are measurable and achievable?

During the process of setting its goals, the SDC ensures that its goals are SMART. These goals are set by making many analyses mainly SWOT analysis which is a technique that is designed to scan the environment for four aspects (Strengths, and Weaknesses, and Opportunities, and Threats) of the business.

Principle (2 - Governance) indicates that the performance in meeting the above-mentioned objectives is assessed through:

- 1. its strategic plan: all goals break down in its strategic plan including programs and projects that eventually contribute directly to achieve its goals.**
- 2. Article (19/A/2) of the internal by-law of the Securities Depository Center states that one of the responsibilities of the SDC board to monitor the operations of the SDC to achieve its objectives.**
- 3. Reflecting the objectives through the procedures and activities.**

21.2.3 To what extent have the goals and objectives been achieved? What mechanisms does the FMI have to measure and assess this?

Within the SDC strategic plan, the SDC developed and introduced new services and promote them. Accordingly, we have completed (89.2%) of its projects in its strategic plan.

The SDC's management periodically reviews the performance of departments in addition to the Internal Audit Department to follow up the departments and prepares reports periodically (every 3 months) to inform the SDC's Board with that the actions and measures taken by the SDC are in conformity with the laws, regulations and legislations in force.

The Board forms an audit committee, which is a permanent committee, was emerged from the Board itself as an oversight body to supervise and control of accounting and auditing affairs at the SDC, and to discuss the annual plan of the Internal Audit.

Key consideration 3

An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.

21.3.1 What processes and metrics does the FMI use to evaluate its efficiency and effectiveness?

1. The SDC collects feedback from all participants and any other stakeholders and there have never been any complaints regarding services provided by the SDC.
2. There has never been any systems downtime since the inception of the SDC. In case of any failure, the SDC implemented BC and DR as indicated in the principle (17-Operational risk).
3. The internal audit department makes sure regularly that actions and measures taken by the SDC are in conformity with laws, and legislations in force according to the principle (3- Framework for the comprehensive management of risks).
4. The Board of Directors evaluates the SDC efficiency and effectiveness as the need arises.
The SDC has an established audit committee that consists of board members. This committee is an oversight body to supervise and control of accounting and auditing affairs at the SDC, and to discuss the annual plan of the Internal Audit Department before the approval by the Board of Directors. This committee facilitates the functioning of the Board as mentioned in the principle (2 - Governance).
5. The SDC has cards of the projects that includes details mainly KPI.
6. The (Jordan Securities Commission - JSC) has (SCORPIO)'s surveillance system provided by the SDC. Therefore, it can perform operational audits on a daily basis.

The SDC subjects to the Commission's monitoring and supervision (Article 3/D) of the internal by law of the internal by-law of the Securities Depository Center.

21.3.2 How frequently does the FMI evaluate its efficiency and effectiveness?

Please refer to Q 21.2.3

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.
(Applicable FMIs: PS, CSD, SSS, CCP, TR)

Key consideration 1

An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.

22.1.1 Does the FMI use an internationally accepted communications procedure and, if so, which one(s)? If not, how does the FMI accommodate internationally accepted communication procedures?

The SDC provides a number of communication structures to SDC members using leased lines, MPLS. The SDC became an active member of SWIFT and a direct member of the CBoJ RTGS system in 2015 (it is connected via SWIFT ISO 20022). This helped to establish a better line of communication between the SDC and the CBoJ, in line with international standards (for accepted trades, cash settlement is instructed through the SDC's account with the CBoJ through the RTGS system).

The SDC and ASE communicate through an electronic tight coupling using the CCM (Central Control Module) to ensure that the securities are available prior to the execution of a trade. The CCM checks in real time the validity of the depository account for each incoming sell and buy order in the ASE Trading Engine. Following the end of the trading session, the SDC receives a final trading file from the ASE. The SDC sends a settlement report to brokers and custodians and settlement contracts are sent from SDC for acceptance/rejection. For accepted trades, the SDC executes the delivery of securities and payment is made separately through the CBoJ RTGS using SWIFT messages.

SDC also introduced a Members' Area on the intranet, enabling each SDC member to control and reconcile the information available on the SDC database with their internal system ensuring accuracy, correctness and completeness of information.

Corporate actions are executed by the SDC directly on the securities' accounts. Issuers and brokers are notified via direct electronic link. At the moment, SWIFT is not used. The SDC plans to use SWIFT to provide more variety of services to its members.

To enhance communication, the SDC circulates any amendments and changes of any procedures, systems, legislation to the members and gets their feedback before approving it.

22.1.2 If the FMI engages in cross-border operations, how do the FMI's operational procedures, processes and systems use or otherwise accommodate internationally accepted communication procedures for cross-border operations?

Currently, the SDC is not involved in cross-border transactions with external entities. Nevertheless, it's important to highlight that the SDC electronic core system (SCORPIO) has been set up to establish connections with any external party via API interfaces. This configuration is designed to streamline the facilitation of linkage operations with Central Securities Depositories (CSDs) in foreign markets if the need arise.

22.1.3 Does the FMI use an internationally accepted communications standard and, if so, which one(s)? If not, how does the FMI accommodate internationally accepted communication standards?

Yes, SWIFT ISO 20022

22.1.4 If the FMI engages in cross-border operations, how do the FMI's operational procedures, processes and systems use or otherwise accommodate internationally accepted communication standards for cross-border operations?

Currently, the SDC is not involved in cross-border transactions with external entities. Nevertheless, it's important to highlight that the SDC electronic core system (SCORPIO) has been set up to establish connections with any external party via API interfaces. This configuration is designed to streamline the facilitation of linkage operations with Central Securities Depositories (CSDs) in foreign markets if the need arise.

22.1.5 If no international standard is used, how does the FMI accommodate systems that translate or convert message format and data from international standards into the domestic equivalent and vice versa?

The in-house developed SDC electronic core system, known as SCORPIO, has successfully adhered to international communication procedures and messaging standards for interactions with external institutions. Examples include:

- The SDC settlement system and CBJ RTGS utilize SWIFT MX messages (ISO 20022).
- The SDC-ASE tight coupling system employs Simple Binary Encoding (SBE) within the FIX Protocol. This protocol, an open-source binary protocol, serves as a solution for market data and order entry messages.

Furthermore, SCORPIO has been specifically configured to establish connections with external parties through API interfaces. This configuration allows for seamless facilitation of linkage operations with foreign markets as the need arises.

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.

(Applicable FMIs: PS, CSD, SSS, CCP, TR)

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.

23.1.1 What documents comprise the FMI's rules and procedures? How are these documents disclosed to participants?

The SDC's rules and procedures are comprehensive, clear and in general well-designed. The SDC demonstrates a high level of transparency and discloses publicly through its website, in Arabic and English language, its rules and procedures as well as a broad information like holdings and trading and statistical information about transactions and volumes.

The SDC also disclose legislations through its website include:

Laws:

1. Securities Law
2. Islamic Finance Sukuk Law
3. The Jordanian Companies Law.

By-Laws

4. The By-Law of the Securities Depository Center
5. The Settlement Guarantee Fund
6. The Securities Depository Center's Proceeds
7. The Membership and Code of Conduct

Instructions:

8. The Registration, Deposit and Settlement of Securities
9. The Registration, Deposit and Settlement of Sukuk
10. The Disclosure of Information, Data and Records of the Securities Depository Center
11. Instructions of Dealing with Subscription Rights

The SDC will publish Due Diligence Package on its new website (will be launched very soon). This package includes the relevant "International Standards" and all related documents such as this disclosure which reflects all answers and details related to the SDC's business.

23.1.2 How does the FMI determine that its rules and procedures are clear and comprehensive?

SDC procedures stem from legislations and go through several stages of approval such as these legislations have obtain approval from local regulator (Jordan Securities Commission - JSC) according to principle 1 (legal basis).

The SDC manages and reviews any need for any amendments to reflect them in the rules.

The SDC supports the legal amendments with explanatory memos to provide more clarity.

23.1.3 What information do the FMI's rules and procedures contain on the procedures it will follow in non-routine, though foreseeable, events?

The emergency plan for the main operations related to the clearing and settlement is disclosed and well known for the SDC's members.

The SDC legislations include procedures to follow in exceptional cases.

The SDC also published any exceptional procedures that are not pre-determined in advance.

23.1.4 How and to whom does the FMI disclose the processes it follows for changing its rules and procedures?

The SDC disclose its processes through different communication channels for example emails, fax, website, bulletin, and sessions for all related parties such as members, individual and institutional investors, ..etc.

23.1.5 How does the FMI disclose relevant rules and key procedures to the public?

Through the SDC's website, social media and press releases.

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.

23.2.1 What documents comprise information about the system's design and operations? How and to whom does the FMI disclose the system's design and operations?

The instructions and by-laws of the SDC contain information about the system's design and operations. The main document containing information about the system design and procedures to be followed by members is the Instructions of Registration, Deposit and Settlement of Securities. It is published on SDC's website and accessible to participants.

Documents containing information about the system's design and operations:

1. SDC Internal Documents

- **System Design Documents:** These documents outline the overall architecture, components, and functionalities of the SDC system (SCORPIO).
- **Operational Manuals:** Manuals detailing the day-to-day operations, procedures, and protocols followed by the SDC in executing its functions.
- **Disaster Recovery and Business Continuity Plans:** Documents outlining strategies and procedures in place to ensure the system's continuity in case of disruptions or disasters.
- **Technical Specifications:** Detailed technical specifications of the hardware and software components of the system.

2. Disclosure mechanisms and Recipients:

- **Publicly Available Documents:** Some information about the system's design and operations may be disclosed to enhance transparency through publicly available documents such as annual reports, Press releases, regulatory documents, or websites documents and diagrams describing the SDC's central electronic system called SCORPIO®, other operational systems and security and continuity of business systems.
- **Confidential Disclosures to Regulators:** The SDC may provide detailed information to regulatory authorities such as JSC, ensuring compliance with regulatory requirements while maintaining a level of confidentiality.

- **Sharing with Participants:** Certain aspects of the system's design and operations may be shared with SDC direct participants, allowing them to understand and engage effectively with the system such as User Manuals, APIs technical documents and MEMOs.
3. **Timing of Disclosure:**
- **Regular Reporting:** Routine disclosure through periodic reports, such as annual reports, ensures a continuous flow of information.
 - **Event-Driven Disclosures:** Immediate disclosure may occur in response to significant events, changes in design, or major operational updates.

23.2.2 How and to whom does the FMI disclose the degree of discretion it can exercise over key decisions that directly affect the operation of the system?

The degree of discretionary authority associated with the level of disclosure related to operational procedures of the system is determined according to the legislation and policies established by the securities depository center (SDC). It targets relevant stakeholders based on the circumstances and data causing disclosure and their connection to electronic systems.

According to the following details:

1. **Public Disclosure:**
 - **Publicly Available Documents:** This includes information about the SDC's discretion over key decisions in publicly available documents such as annual reports, website, and regulatory filings.
2. **Communication with Regulatory Authorities:**
 - **Direct Reporting to Regulators:** The SDC directly report to regulatory authorities (JSC), providing details about the extent of discretion it can exercise over critical decisions.
3. **Participant and Member Communication:**
 - **Direct Communication with Participants:** The SDC may communicate directly with participants and members, disclosing the degree of discretion it holds over key operational decisions. This helps participants understand the operational landscape and the SDC's decision-making processes.
4. **Transparency in Rules and Regulations:**
 - **Regulations and Operating Manuals:** The SDC clearly articulates the extent of its discretion in key decision-making within its Rules and regulations and operations manuals. This documentation is typically made available to participants and regulatory authorities through SDC website.
5. **Stakeholder Consultation and Communication:**
 - **Engagement with Stakeholders:** The SDC may engage in consultations and communication with stakeholders, including members, financial market institutions and regulatory authorities, to discuss and disclose the level of discretion it holds.
6. **Timely Disclosure:**
 - **Prompt Disclosure:** Timely disclosure of any changes in the degree of discretion or key operational decisions is crucial. This can be achieved through immediate communication with relevant stakeholders and regulatory bodies.

23.2.3 What information does the FMI provide to its participants about their rights, obligations and risks incurred through participation in the FMI?

The Internal By-Law of the Membership and Code of Conduct contains conditions for membership for public shareholding companies, brokers and custodians. The Code of Conduct section lays down responsibilities and liability of members. There is no document specifically addressing the risks incurred by participants.

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.

23.3.1 How does the FMI facilitate its participants' understanding of the FMI's rules, procedures and the risks associated with participating?

The SDC provides participants and general public with documentation necessary to understand SDC's rules and procedures. The information provided through SDC's website is comprehensive and we provide guidance to any member requesting further information. We can have bilateral meetings and we have conducted training to members upon their request.

The SDC also provide documentation and training of usage its electronic system.

23.3.2 Is there evidence that the means described above enable participants' understanding of the FMI's rules, procedures and the risks they face from participating in the FMI?

In addition to all the comprehensive data and information published on the SDC website and the multiple communication channels open between the SDC and its participants , to ensure satisfaction requirements and needs of all participants the SDC has taken the following measures:

- **Providing a set of electronic services, such as member area services, which provide a set of working manuals for the center's systems.**
- **Consult and interact with all participants regarding new products or changes in rules and procedures, etc.**
- **Holding workshops and giving courses to SDC'S members regarding new products or updates and Issuing circulars and disclosures. Examples of this include holding a workshop regarding the project to introduce the custodians into financial settlements.**

Based on the procedures mentioned above, the Securities Depository Center received more than one letter of thanks from the Center's members

23.3.3 In the event that the FMI identifies a participant whose behavior demonstrates a lack of understanding of the FMI's rules, procedures and the risks of participation, what remedial actions are taken by the FMI?

We contact the concerned member if we faced a clear situation of misunderstanding.

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.

23.4.1 Does the FMI publicly disclose its fees at the level of its individual services and policies on any available discounts? How is this information disclosed?

Yes, the internal by law of the SDC proceeds which is include all fees for each service. This by law as mentioned above is available for the public on its website.

23.4.2 How does the FMI notify participants and the public, on a timely basis, of changes to services and fees?

Through different communication channels such as emails, fax, website, and bulletin.

23.4.3 Does the FMI provide a description of its priced services? Do these descriptions allow for comparison across similar FMIs?

Yes, the SDC Proceeds By-Law provides a detailed breakdown of the individual services and applied fees. The description provided allows for comparison with other CSDs.

23.4.4 Does the FMI disclose information on its technology and communication procedures, or any other factors that affect the costs of operating the FMI?

Yes, the SDC also discloses information on technology and communication procedures that affect the costs of operating the SDC.

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.

23.5.1 When did the FMI last complete the CPSS-IOSCO Disclosure framework for financial market infrastructures? How frequently is it updated? Is it updated following material changes to the FMI and its environment and, at a minimum, every two years?

The SDC is currently completing responses to the CPSS-IOSCO disclosure framework for financial market infrastructures.

23.5.2 What quantitative information does the FMI disclose to the public? How often is this information updated?

Within its initiatives to enhance transparency; the SDC publishes all the information that matters to investors through its website. This information includes the following: electronic services, names of the board members and representatives, ownership and trading of the public shareholding companies' board of directors members, shareholders who own significant percentages of the shares in companies, trading of members of the boards of directors of those companies and representatives of legal members, financial ratios, statistical data on trading contracts, nationalities, corporate actions, and others. All information is updated regularly.

All mentioned statistics are available on the SDC website on the following link: https://www.sdc.com.jo/english/index.php?option=com_public&Itemid=28&Submit=Statistical%20Reports

The SDC's website is considered one of the most website in the region to provide detailed information.

23.5.3 What other information does the FMI disclose to the public?

Much information is published such as legislations, annual reports, memos, Service manual,...

23.5.4 How does the FMI disclose this information to the public? In which language(s) are the disclosures provided?

Through the website in both languages (Arabic, and English)

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.

(Applicable FMIs: TR)

This principle is not applicable to the SDC.