

**Achievement of Market-Friendly Initiatives and Results Program
(AMIR 2.0 Program)**

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**Risk Management Issues in the
Jordan Capital Market and
International Benchmark Standards**

Final Report

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- Securities Law 2002
- International Organization of Securities Commissions (IOSCO)
- Risk Management
- World Federation of Exchanges (WFE)
- Committee on Payment and Settlement Systems (CPSS) of the Central Banks of the Group of 30 Countries (G30)
- Settlement Guarantee Fund
- Liquidity Risk
- Legal Risk
- Market Risk
- Operational Risk
- Trading Limits
- U.S. Securities and Exchange Commission (SEC) Net Capital Rule
- Capital Adequacy
- Uncovered Short Sales
- Delivery Versus Payment (DVP)
- Central Securities Depository (CSD)
- Tightly-Coupled
- Self-Regulatory Organization (SRO)
- Borrowing and Lending Contract
- Market Surveillance System
- Listing Requirements
- Market Investor Protection

Abstract

The report summarizes the risk management issues in the Jordanian capital market. Three capital market institutions, the Jordan Securities Commission (JSC), the Amman Stock Exchange (ASE) and the Securities Depository Center (SDC) are researched and information regarding the market risks associated with each organization is presented. International standards from more than five securities market regulatory organizations are analyzed and outlined as they relate to the current risk management environment in Jordan's capital market.

Recommendations for effective risk management are made. Adherence to these recommendations will help all three institutions comply with international best practices and limit the risks associated with investing in Jordan. Prudent risk management, leading to sustained growth, is vital for the success of the Jordanian capital market. Sound and effective risk management controls promote both securities firms and industry stability which, in turn, inspires confidence in the investing public and market participants. Enhanced investor confidence will attract both domestic and international capital to Jordan's markets and strengthen the overall capital market structure.

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Executive Summary

The AMIR Program Capital Market Development Component (CMD) began in 1999. At that time, Jordan capital market sector was increasingly viewed as a critical component in the economic development plans of the country. The market showed significant potential for development, but was plagued with endemic deficiencies, including an equity market lacking sufficient liquidity, an inadequate Securities Law, a weak market structure requiring reform and poorly functioning trading and depository systems. The CMD Component, worked closely with the JSC, ASE and SDC to enhance the reach of the market and improve its reputation through legal enhancements, developing new market windows, establishing the depository, training of the JSC, ASE and SDC staff and market intermediaries and investor education and awareness. Section I presents further detail on what was achieved in developing Jordan's capital market.

The recent approval by the Cabinet, of the Securities Law of 2002 is a significant step forward for the Jordan capital market. As Jordan's capital market looks to the future, the most important activities the JSC, ASE and SDC need to address are issues of risk management. The AMIR Program has helped establish a world class depository. As a result of technical assistance provided by the CMD Component, in May of 2002 the United States Securities Commission accepted without comment a letter from the SDC qualifying the depository as an International Securities Depository under the U.S. Investment Companies Act of 1940. The qualification of the SDC as an International Securities Depository is important in evidencing the Jordan capital markets' compliance with generally accepted standards. The SDC continues to enhance its risk management procedures and systems. However, SDC progress is delayed due to risk management issues at the JSC and ASE.

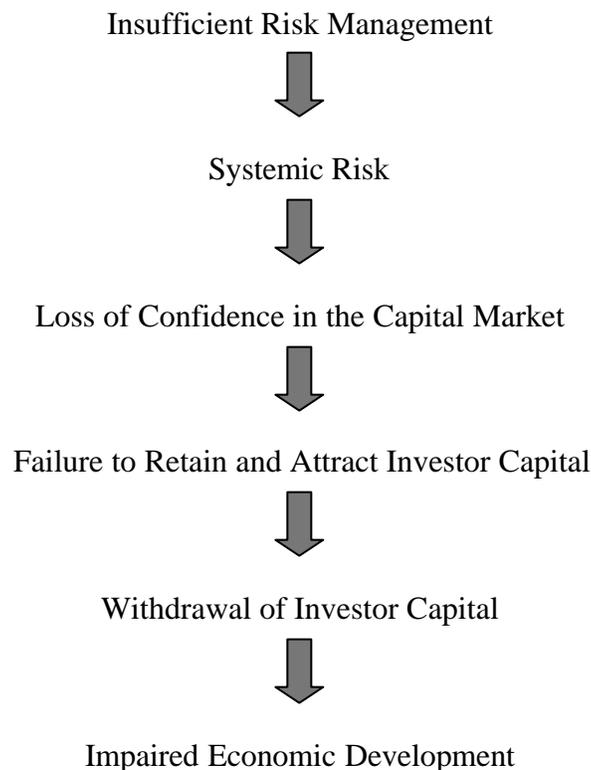
The consequences of insufficient risk management controls can negatively impact the capital market and portfolio investment in the Kingdom. Brokers may be lending money to customers that the brokers may have borrowed from banks. Many brokerage firms are owned by banks. Therefore, insufficient risk management controls may also negatively impact the banking sector.

Prudent risk management, leading to sustained growth, is vital for the success of the Jordanian capital market. Sound and effective risk management controls promote both securities firms and industry stability which, in turn, inspires confidence in the investing public and market participants.

The current levels of risk management and risk mitigation in the Jordanian capital market needs strengthening. The existing risk management policies of Jordan's capital market:

- Do not meet generally accepted global standards
- Do not provide acceptable levels of investor protection against credit risk, liquidity risk, operational risk and systemic risk
- Impede the growth of the Jordanian financial market.
- May inhibit the level of foreign portfolio investment in Jordan

Stated in the simplest of terms:

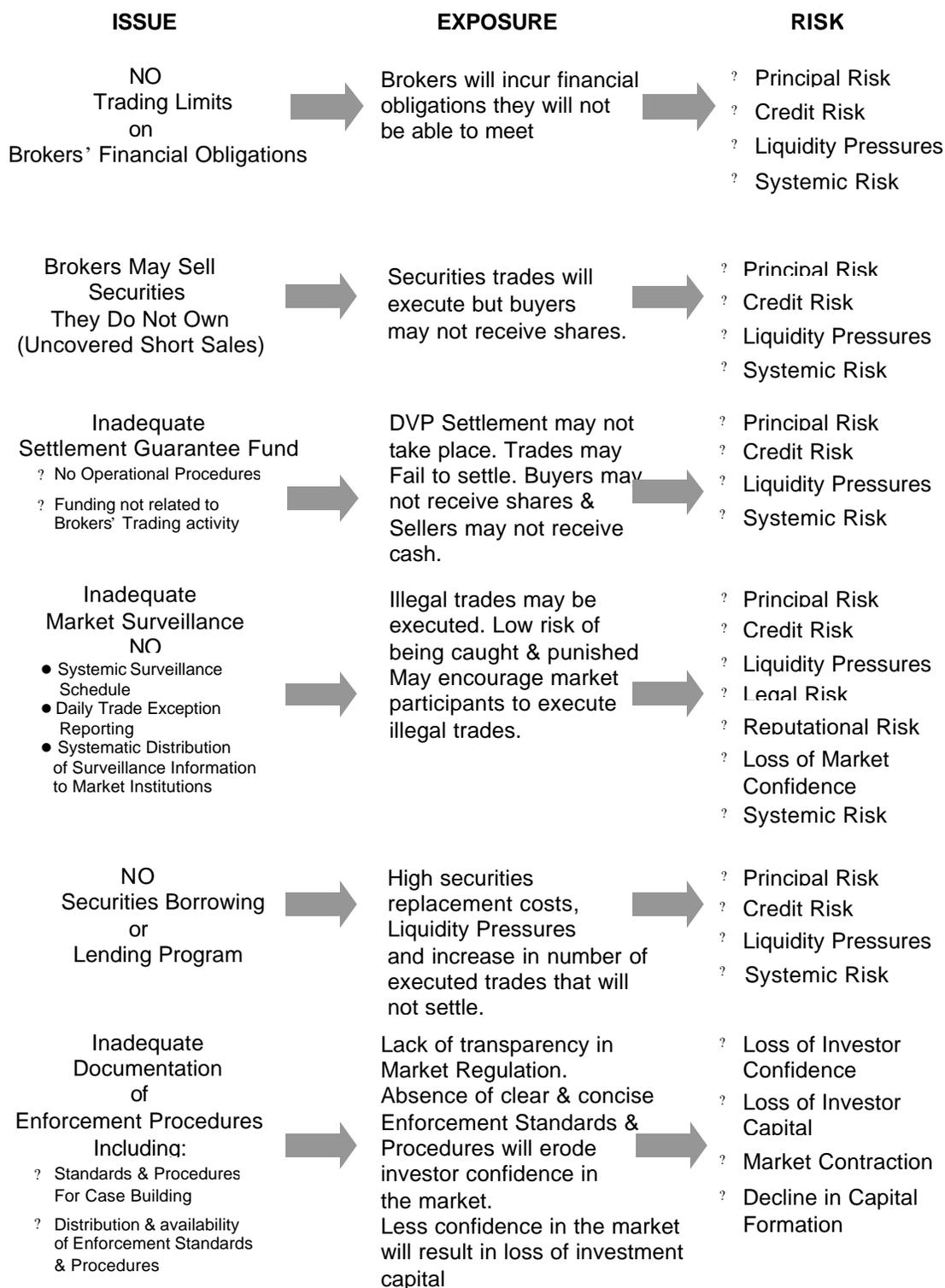


Risk Management Issues in the Jordanian Capital Market

Risk Management standards are set by several international organizations, including, but not limited to:

- World Federation of Exchanges (WFE formally the Federation International de Bourses de Valors)
- International Organization of Securities Commissions (IOSCO)
- Central Banks of the Group of 30 Countries (G30)
- Bank for International Settlements (BIS)

Based on a comparison of risk management procedures recommended by international standard-setting bodies and Jordan’s risk management procedures, Jordan’s polices and procedures must be strengthened in order to comply with globally accepted standards. The following list highlights the risk management procedures that are recommended by international standard-setting organizations but are not currently enforced in Jordan’s capital markets.



ISSUE	EXPOSURE	RISK
<p>Inadequate Systematic Oversight of JSC</p> <p>NO</p> <ul style="list-style-type: none"> ? Designated Oversight Authority <ul style="list-style-type: none"> ? Ministry of Finance ? Parliamentary Committee ? Oversight Schedule ? Oversight Procedures ? Accountability Standards ? Accountability Enforcement 	<p>Lack of oversight for Market Regulators may result in unbalanced regulation & flawed recourse procedures.</p> <p>Concentration of poorly supervised regulatory power may lead to a loss of investor confidence in the market.</p> <p>Flawed recourse procedures may generate market distrust with international investors.</p>	<ul style="list-style-type: none"> ? Loss of Investor Confidence ? Loss of Investor Capital ? Market Contraction ? Decline in Capital Formation

International Standards and the Jordan Securities Commission (JSC)

The International Organization of Securities Commissions (IOSCO) is the internationally recognized standard-setting body for securities market regulation.

A comparison of IOSCO recommendations and the existing regulatory documentation in the Jordan capital market has identified areas for risk management improvement at the JSC. Enhancement of the areas listed below will help the JSC comply with IOSCO recommendations and greatly improve the risk management policies and procedures of Jordan’s capital market.

**International Organization of Securities Commissions (IOSCO)
Objectives & Principles of Securities Regulation¹
Principle Areas for Improvement at the Jordan Securities Commission**

#	PRINCIPLE
4	Clear, Concise & Well-Documented Regulatory Procedures
6	Use of Self-Regulatory Organizations (SROs)
10	Securities Market Surveillance & Compliance Program Procedures
12	Information-Sharing Procedures with Other National & International Regulators
15	Treatment of Sharing Requirements
23	Documented Standards-Market Intermediary’s Organization & Operations
24	Documented Procedures-Market Intermediary Defaults
25	Trading Systems-Authorization & Oversight Procedures
26	Trading Systems-Ongoing Supervision of Trading System’s Integrity
27	Transparency of Trading-Documented Regulations & Oversight Procedures
28	Detection of Manipulative Trading-Documented Requirements & Procedures
29	Management of Large Exposures & Default Risk Procedures

International Standards and the Amman Stock Exchange (ASE)

The World Federation of Stock Exchanges WFE, formerly known as the Federation Internationale de Bourses de Valors (FIBV), is the international standard-setting trade association for securities exchanges. The Federation’s membership consists of a total of 102 regulated exchanges from all regions of the world. Collectively the membership’s account for over 97% of world’s stock market capitalization and most exchange-traded futures, options, listed investment funds and bonds. The Federation’s membership requirements are regarded as international financial/operational standard and best practices.

The WFE’s 102 members are divided into three categories of membership:

- (1) Member (60)
- (2) Affiliate (7)
- (3) Correspondent (35)

The WFE levels of membership correspond to each exchange’s level of compliance with WFE standards. Full Members are the most compliant and Correspondent Members are the least compliant. The WFE classifies the ASE as a Correspondent because the ASE does not meet the WFE’s standards for either Member or Affiliate\.

A comparison of WFE membership standards and ASE operational procedures and documentation has identified areas for risk management improvement at the ASE. Strengthening of the areas listed below will help the ASE improve its classification at the WFE and comply with internationally accepted standards for stock exchanges.

**The World Federation of Exchanges Membership Requirements²
WFE Membership Requirements & Areas for Improvement at the Amman Stock
Exchange**

#	STANDARD
2.c	Market Participants–Standards & Requirements Documentation
2.d	Market Participants Requirements-Monitoring Procedures
2.e	Human Resources Department-Documented Procedures
2.h	Organization Funding-International Accounting Standards Compliant Audit
3.0	Market Access-Comprehensive Rules, Regulations & Procedures
4.0	Listing Companies-Comprehensive Disclosure & Monitoring Procedures
5.0	Regulatory & Investor Transaction Audit Trails-Documentation
5.0	Price Processing, Queuing & Display Equitability Documentation
5.0	Transaction Reporting-Rules, Compliance & Enforcement Documentation
5.0	Best Execution-Rules, Compliance & Enforcement Documentation
5.0	Cross-Border Trading-Rules, Compliance & Enforcement Documentation
6.0	Securities Borrowing & Lending Contracts-Documentation
7.0	Trading System-Risk Assessment Documentation

#	STANDARD
8.0	Risk Management Operational Procedures-Position Limits
8.0	Risk Management Operational Procedures-Margin Requirements
8.0	Risk Management Procedures-Minimum Capital Requirements
8.0	Risk Management Procedures-Mark-to-Market Systems & Requirements
10.0	Market Surveillance-Supervisory & Enforcement Procedures
10.0	Market Surveillance- Regulatory Reporting Requirements & Procedures
10.0	Records Retention Requirements & Procedures
11.0	Investor Protection-Disclosure & Transparency Rules & Procedures
11.0	Investor Protection-Compensation Fund Structure, Rules & Procedures
12.0	Business Conduct-IOSCO International Conduct of Business Compliance
12.0	Business Conduct-Members Best Practice Rules, Compliance & Enforcement
12.a	Honesty & Fairness-Manipulative Practices Rules, Compliance & Enforcement
12.b	Diligence-Order Execution Rules, Surveillance & Compliance Documentation
12.d	Customer Information-Know Your Customer Rule Information Requirements.
12.e	Customer Information-Confirmation Issuance Rules & Requirements
12.g	Compliance-Exchange Staff Rules of Conduct Documentation
12.g	Compliance-Members' Recordkeeping Requirements Documentation
12.h	Statistics-Collection, Codification & Issuance Documentation
13.0	Trading-Time/Price Priority, Equitability & Integrity Rules Documentation
13.0	Trading-Monitoring & Reporting Procedures

International Standards and Securities Depository Center (SDC)

Standards for Central Securities Depositories (CSDs) are established and administered by:

- International Organization of Securities Commissions (IOSCO)
- Committee on Payment & Settlement Systems (CPSS) of the Central Banks of the Group of 30 Countries (G30)

A comparison of the Task Force's standards³ and the Securities Depository Center's operational procedures and documentation has identified areas for risk management improvement. Enhancement of these areas listed below will help the SDC comply with internationally accepted standards for securities depositories.

**The International Organization of Securities Commissions (IOSCO)
&
The G30 Committee on Payment and Settlement Systems (CPSS)⁴
Areas for Improvement at the Securities Depository Center (SDC)**

#	RECOMMENDATION
5.0	Securities Borrowing & Lending Rules, Procedures & Documentation
9.0	Settlement Guarantee Fund-Operational Procedures & Documentation
18.0	Comprehensive Statement of Business Objectives
18.0	Comprehensive Operations Manual

Consequences of Insufficient Risk Management

A capital market's compliance with global standards is critical to the market's ability to attract and retain investor capital. Compliance with generally accepted global standards creates confidence in the operational safety and financial stability of a capital market and materially assists the market in the intense competition for global capital.

According to WFE statistics⁵ for 2001, there are 102 securities markets actively operating throughout the world. In the 102 operating markets, there are what the WFE considers 60 mature markets and 42 emerging markets. Based on these statistics, the Jordan capital market is competing with 60 mature markets and 41 emerging markets for investment capital. Due to the fact that investors are provided with so many markets in so many geographic locations, it is not surprising that in recent years the competition for investment capital has significantly escalated.

A material level of non-compliance or incomplete compliance with generally accepted international standards places a country's capital market at a distinct disadvantage in the competition for investment capital. Even with the exclusion of the 16 major money-center markets in Europe, Africa and the Middle-East, the Jordan capital market faces serious competition from 86 markets throughout the world. Given the intense level of competition for investor capital, it is critical that a capital market such as Jordan possess a high degree of compliance with generally accepted global standards.

SECTION I

BACKGROUND

SECTION 1: Background

The AMIR 1.0 Program's Capital Market Development Component (CMD) was a relative latecomer to the AMIR Program's portfolio of activities having formally been added by a USAID modification in August 1999, two-years after the program's implementation.

At that time, Jordan's capital market sector was increasingly viewed as a critical component in the economic development plans of the country. The market showed significant potential for development, but was plagued with endemic deficiencies, including an equity market lacking sufficient liquidity, a weak regulatory structure requiring reform, and a poorly functioning trading and depository system. Significant development, reform, and depth was needed both to meet the country's ambitious economic development goals and to build Jordan's capital market sector to the standards of full-fledged market-based financial systems of industrial countries.

The AMIR Program was asked to help develop and expand Jordan's capital market into a self-sustaining enabling financial environment for investment and growth - one that would base its tenets on establishing a fair, efficient, liquid, and transparent market to inspire domestic and international investor confidence.

The CMD Component sought to improve the efficiency, stability, and institutional environment of the Jordanian securities market by strengthening the quality of its legal/regulatory framework and by increasing the institutional capacity of Jordan's three capital market institutions: the Jordan Securities Commission (JSC), the Amman Stock Exchange (ASE), and the Securities Depository Center (SDC). The component has worked to propel the reach of the market and improve its reputation by working with the ASE to develop new market windows, the SDC on its automation, the mutual fund industry and by initiating efforts to expand public awareness of capital market products. The intended result of these efforts is a more robust capital market with greater public participation and domestic and international investor participation.

Working in close conjunction with the JSC, ASE and the SDC the following activities were accomplished:

- The Securities Law of 2002 enacted
- ASE Business Plan created and new market structure implemented
- A modern, world-class central securities depository established, including the implementation of:
 - ▶ Automated Securities Clearing & Settlement System
 - ▶ Depository Position Safekeeping System
 - ▶ Share Registry & Transfer Agent System
 - ▶ Business Plan
 - ▶ Institutional Strengthening & Support Structures

- Capital Markets Public Awareness & Investment Education Program launched, including:
 - ▶ Newspaper-based Investment Education Series
 - ▶ The Economy – Financial News Program on Jordan Television
 - ▶ Capital Market Information brochures in Arabic & English
 - ▶ Capital Market Information CDs in Arabic & English
- Websites for market institutions designed, tested & implemented, including independent websites for:
 - ▶ Jordan Securities Commission
 - ▶ Amman Stock Exchange
 - ▶ Securities Depository Center
- Broker Certification Program established with assured sustainability
- Charter Financial Analyst (CFA) Program launched
- United States Securities & Exchange Commission (SEC) Regional Training Program conducted
- Management Information Systems (MIS) implemented at JSC, ASE & SDC including:
 - ▶ Human Resources
 - ▶ General Ledger
 - ▶ Payroll
 - ▶ Database Management
- Wide Area Network (WAN) established to support communications between the JSC, ASE & SDC and:
 - ▶ Brokers
 - ▶ Listed Companies
 - ▶ Custodians
- Automated systems applications, including hardware, software and personnel training, procured and installed to support capital market operations at the JSC, ASE and SDC.
- Office equipment and business support units procured and installed at the JSC, ASE and SDC. Equipment included:
 - ◆ Graphics Presentation equipment
 - ◆ Printers
 - ◆ Photocopiers
 - ◆ WAN support equipment

- ◆ ASE Investor Gallery
- ◆ JSE Market Data Dissemination Equipment
- Training provided to JSC, ASE and SDC staff to raise levels of computer literacy in the capital markets. Training and support resources provided included:
 - ◆ Word Processing (MS Word)
 - ◆ Business Presentation (MS PowerPoint)
 - ◆ Office Information Database Management (MS Excel)
 - ◆ Research Skills (Internet Search Engine Training)
 - ◆ Business Network Management Skills (CISCO)
 - ◆ IT Staff Support (Microsoft Certified Engineer)
- Capital Markets Training provided to Jordanian Financial Journalists
- Financial News Training provided to personnel of Jordan Television
- English Language Training provided to staff of the JSC, ASE and SDC through the American Language Center
- Market Surveillance, Market Enforcement & Market Development training provided through annual US SEC Training Programs
- Sponsorship provided to JSC Commissioners for participation in World Bank Conferences and International Organization of Securities Commissions (IOSCO) Conferences

Report Issuance – Why Now?

The recent approval by the Cabinet, of the Securities Law of 2002 was a significant step forward for the Jordan capital market. As Jordan's capital market looks to the future, the most important activities the JSC, ASE and SDC need to address are issues of risk management. . The AMIR Program has helped establish a world class depository. As a result of technical assistance provided by the CMD Component, in May of 2002 the United States Securities Commission accepted without comment a letter from the SDC qualifying the depository as an International Securities Depository under the U.S. Investment Companies Act of 1940. The qualification of the SDC as an International Securities Depository is important in evidencing the Jordan capital markets compliance with generally accepted standards. The SDC continues to enhance its risk management procedures and systems. However, SDC progress also relies on the risk management controls at the JSC and the ASE.

The issuance of this report at this time has been driven by a number of international and domestic events whose occurrence have converged at the same time to add urgency to remedying risk management issues in the Jordanian capital market. The convergent events include, but are not limited to:

- Enactment of a new Securities Law in Jordan
- Implementation of Cash Settlement at the SDC
- Implementation of DVP Settlement Services at the SDC
- Constriction of international capital market activity
- Escalation of already intense competition for international investment capital
- Regional political events impact on Jordan's capital markets ability to attract investment capital
- Imminent World Bank study of Jordanian capital market

SECTION II

RISK MANAGEMENT ISSUES

in the

JORDAN CAPITAL MARKETS

SECTION II: Risk Management Issues in the Jordan Capital Market

It is generally accepted that capital markets require official regulation because there are legitimate public policy concerns which cannot be adequately addressed by the market itself. While it is possible to set out these public policy objectives under distinct headings, it is important to recognize that there is a significant interaction between them. Thus issues related to market integrity and investor protection have implications for systemic safety, and vice versa.

Regulators recognize that there are other significant risks besides market risk, credit risk and settlement risk. The most important of these are:

1. Liquidity Risk, which comes in two forms. Market Liquidity Risk arises when a firm is unable to conclude a large transaction in a particular instrument at anything near the current market price. Funding Liquidity Risk is defined as the inability to obtain funds to meet cash flow obligations.
2. Legal Risk is the risk that a transaction proves unenforceable in law or because it has been inadequately documented; and
3. Operational Risk which is the risk of unexpected losses arising from deficiencies in a firm's management information, support and control systems and procedures.

The management of risk in a capital market therefore becomes not only an economics issue but an issue of public policy. Prudent Risk Management, leading to sustained growth, is vital for the success of all capital markets including the Jordanian capital market. Sound and effective Risk Management controls promote both securities firm and industry stability which, in turn, inspires confidence in the investing public and market participants.

The current levels of Risk Management and Risk Mitigation in the Jordanian capital need strengthening for the following reasons. The existing risk management controls:

- Do not consistently meet generally accepted global standards
- Do not provide acceptable levels of investor protection against Credit Risk, Liquidity Risk, Operational Risk and Systemic Risk
- Impede the growth of the Jordanian financial market.

Area for Improvement

Establish Trading Limits on Brokers' Financial Obligations

The current issue in the Jordan capital market related to Capital Adequacy is the lack of controls on the amount of financial obligations a member of the ASE may incur in relationship to the member's available financial resources and ability to meet obligations incurred. Member Trading Limits should be established that prevent an exchange member from incurring obligations that the member will have difficulty in meeting. Member Trading Limits should be related to a member's Capital Adequacy, as determined by the market regulators.

Capital Adequacy – International Standards

Capital markets are vital to the growth, development and strength of market economies. They support corporate initiatives, finance the exploitation of new ideas and facilitate the management of financial risk.

In recent years retail investors have increasingly invested a proportion of their money in mutual funds and other collective investment schemes and as a result securities markets have become central to individual wealth and retirement planning. Sound and effective regulation and, in turn, the confidence it brings is important for the integrity, growth and development of capital markets.

The efficient functioning of capital markets requires participants to have confidence in each other's stability and ability to transact business. Capital Adequacy rules help foster this confidence because they require each professional participant in the capital market to have, among other things, adequate capital. This capital must be sufficient to protect a financial organization's customers and counterparties from the risks of the institution's on-balance and off-balance sheet risks. The primary risks in the marketplace are Credit Risk and Market Risks and as such banking institutions are usually required to set aside capital to cover these two main risks. Capital Adequacy standards should be designed to allow a firm to absorb its losses, and in the worst case, to allow a firm to wind down its business without loss to customers, counterparties and without disrupting the orderly functioning of the capital market. The International Organization of Securities Commissions (IOSCO), as the *de facto* arbiter of international regulatory standards, has formulated a series of recommendations for securities market regulators that are designed to protect investors and to support the orderly conduct of business in securities market. IOSCO recommendations to securities market regulators have been endorsed by the organization's membership who represent regulatory bodies from 91 countries. IOSCO recognizes that sound domestic capital markets are necessary to the strength of a developed domestic economy and that domestic capital markets are increasingly being integrated into a global market.

In order to standardize effective market regulation and establish appropriate regulatory regimes in differing global markets IOSCO has issued its Objectives and Principals of Securities Regulation⁶ (IOSCO Principles). The IOSCO Principles have become the global standard for market regulation and has been endorsed by IOSCO members.

IOSCO members through their endorsement of the IOSCO Principles evidence their commitment to the objectives and principles as set out by IOSCO. Insofar as it is within their authority, IOSCO members are expected to use their best efforts within their jurisdiction to ensure adherence to the principles and objectives. To the extent that current legislation, policy or regulatory arrangements may impede adherence to these principles, it is strongly recommended that members seek changes to be implemented.

As part of its continuing standardization efforts, IOSCO has been working for some time on formulating recommendations for the Capital Adequacy of securities firms. In most capital markets securities firms are not normally bound by the 8% capital charge for Credit Risk, the multiplier of three for market risk or a common definition of capital weights or risk weights.

Instead, securities firms are required to meet a Capital Adequacy Test that reflects the liquidity, solvency, Market Risks and Settlement Risks they face. The Technical Committee of IOSCO has examined the need for capital requirements for securities firms, the risks which need to be covered and the various ways in which these requirements can be structured⁷. The Technical Committee's conceptual framework for the capital requirements of securities firms specifies:

- Liquidity and solvency should be covered by a standard that provides for a firm to have sufficient liquid assets to meet its obligations given the risks a firm faces.
- Marking of marketable securities positions to market is necessary to prevent securities firms from disguising losses and also to give a true picture of a securities firm's position
- Risk-based requirements should cover all the risks to a firm and, in particular, should contain:
 - i. A base requirement reflecting the scale of a firm's activities to capture non-measurable risks.
 - ii. Position risk requirements (for both on and off-balance sheet items) reflecting the price volatility of individual securities with provisions for concentrated positions and allowances for risk reduction measures such as hedging.
 - iii. Settlement risk requirement reflecting the risk of non-performance in a timely manner.
- The capital held by each firm must exceed the sum of risk-based requirements.
- In some systems, it is necessary that the definition of capital should reflect the fluctuating nature of the risk-based requirements. Some regulatory systems allow certain types of financings such as subordinated loans to serve as capital in addition to owner's equity. It is, however, recognized that there should be limits on the amount of these financings relative to the owner's equity.
- Differential minimum capital requirements, based on each type of business being conducted by the firm, should be established so those firms wishing to enter the securities business demonstrate a level of commitment to the business. Capital requirements should not be set so high as to adversely affect competition in the marketplace.

In the United States the Securities and Exchange Commission's Net Capital Rule (Rule 15c3-1, 17 CFR 240.15c3-1) as adopted in 1975 requires every broker-dealer to maintain enough liquid assets to enable a firm that falls below the net minimum to liquidate in an orderly fashion. In calculating their Net Capital requirements, broker-dealers have to deduct from their net worth certain percentages, known as hair-cuts, of the value of the securities and commodities positions in the firm's portfolio. These haircuts, derived from multiplying the market value of the securities by prescribed percentages, are to provide protection from Market Risk, Credit Risk and other risks inherent in particular positions.

Discounting the value of a broker-dealer's proprietary positions provides a capital cushion in case the portfolio value of the broker-dealer's positions decline.

Although capital markets vary significantly throughout the world, it is generally accepted that Capital Adequacy requirements are required for securities firms taking positions as principal, carrying client/customer accounts, and/or holding client property. Generally accepted global standards recommend a three-part conceptual framework against which Capital Adequacy standards for securities firms can be measured. It is recommended that the framework consist of:

1. A Capital Adequacy Test that reflects liquidity, solvency, and the risks faced by a securities firm;
2. A Regulatory Structure for the maintenance of a securities firm's books and records; and
3. A framework of Regular Reporting to, and examination by, a supervisory authority.

Clients of securities firms in some national markets are protected in the event of the failure of a particular securities firm through a compensation or insurance scheme. However, the existence of a customer insurance scheme can still leave market participants concerned about their exposure to their customers or counterparties for uncompleted transactions entered into with a failed securities firm. Without adequate financial responsibility safeguards, compensation arrangements become extremely costly. To be effective, a compensation or insurance scheme should operate in tandem with strong financial responsibility requirements.

International standards recommend that there should be an initial capital requirement for securities firms as a condition of entry into the market.

Such a requirement ensures that the owners of the business have a direct financial stake in the business.

International standards also recommended that an intermediary's capital requirements be:

- maintained on an ongoing basis
- the subject of periodic reporting to the market regulator
- directly related to the nature and amount of business undertaken by an intermediary
- regularly audited by independent auditors.

Market Intermediaries – International Standards

In its Objectives and Principles of Securities Regulation, IOSCO proposes four specific recommendations to market regulators related to Market Intermediaries¹. The document defines Market Intermediaries as those participants in the capital markets who are in the business of managing individual portfolios, executing orders, dealing in or distributing securities and providing information relevant to the trading of securities.

The four principles recommended by IOSCO for the regulation of Market Intermediaries are⁸:

- Market Intermediaries should be required to comply with standards for internal organization and operational conduct that aim to protect the interests of clients, ensure proper management of risk, and which management of the intermediary accepts primary responsibility for these matters.
- Regulation should provide for minimum entry standards for market intermediaries.
- There should be initial and ongoing capital and other prudential requirements for Market Intermediaries that reflect the risks that the intermediaries undertake.
- There should be a procedure for dealing with the failure of a market intermediary in order to minimize damage and loss to investors and to contain systemic risk.

IOSCO also recommends that regulation for the various types of intermediaries should address entry criteria, capital and prudential requirements, ongoing supervision and discipline of entrants, and the consequences of default and financial failure.

It is recommended that the oversight of Market Intermediaries should primarily be directed to the areas where their capital, client money and public confidence may most be put at risk. These risks include:

- incompetence or poor Risk Management may lead to a failure of due execution, a failure to obtain due settlement or a failure to provide adequate advice;
- breach of duty that may lead to misappropriation of client funds or property, the misuse of client instructions for the intermediary's own trading purposes, i.e. "front running" or trading ahead of customers, manipulation and other trading irregularities, or fraud on the part of the intermediary or its employees;
- the insolvency of an intermediary that may result in loss of client money, securities or trading opportunities, and may reduce confidence in the market in which the intermediary participates.

Capital Adequacy Summary

The protection of investors and stability of financial systems are increased by an adequate supervision of ongoing capital standards.

Capital adequacy standards foster confidence in the financial markets and international standards recommend these standards should be designed to allow a firm to absorb some losses, particularly in the event of large adverse market moves, and to achieve an environment in which a securities firm could wind down its business over a relatively short period without loss to its customers or the customers of other firms and without disrupting the orderly functioning of the capital market. Additionally, capital adequacy standards should be designed to provide regulatory authorities with time to intervene to accomplish the objective of an orderly wind down.

In order to establish a Capital Adequacy regime in Jordan that is compliant with international standards, it is recommended that the JSC require securities firms to ensure that they maintain adequate financial resources to meet their business commitments and to withstand the risks to which a firm's business is subject. Risk may result from the activities of unlicensed and off balance sheet affiliates and regulation should consider the need for information about the activities of such affiliates.

It is also recommended that the JSC formulate and administer, on an ongoing basis, a Capital Adequacy Test for securities firms that addresses the risks faced by securities firms judged in reference to the nature and amount of the business undertaken by the firm.

In order to address the most pressing Capital Adequacy issues in the Jordanian capital market, it is recommended that JSC-approved Interim Trading Limits be established, implemented and enforced at the ASE..

In order to address the larger and more complex Capital Adequacy issues, it is recommended that the current Capital Adequacy regime in the Jordanian capital market be replaced with internationally accepted Capital Adequacy rules and regulations.

Area for Improvement

Eliminate Uncovered or "Naked" Short Sales

Under the current operations at the ASE, an exchange member may sell securities he does not own, does not have access to and is not deposited in a position at the SDC that the selling member has authority to use.

A sale of securities where the seller does not own the securities, has not made arrangements to borrow securities to cover the seller's position at a Central Securities Depository (CSD) is commonly known as a "Naked" Short Sale or an Uncovered Short Sale. Such sales are in contrast to a Covered Short Sale where the seller has borrowed securities to cover the selling position at a CSD and then has executed the sale transaction. In a covered Short Sale settlement of the transaction will take place due to the fact that the seller's position at the CSD does not contain sufficient shares to support settlement.

The Jordan capital market does not currently have an approved and regulated Securities Borrowing and Lending Program that would support legal, Covered Short Sales. In all international markets "Naked" Short Sales and Uncovered Short Sales are illegal and are prohibited by a combination of regulatory rules, proactive regulatory oversight of exchange trading systems and internal trading systems' mechanisms that prevent such transactions.

In the Jordan capital market, the most immediate and practical way to eliminate "Naked" Short Sales or Uncovered Short Sales is the pre-validation of all ASE sell orders at the SDC. Pre-validation of all sell order positions at the SDC can be implemented by tightly-coupling of the ASE Trading System and the SDC Settlement System.

Secondary Market Systems – Regulatory Oversight

Many emerging markets such as Indonesia and transition markets such as Pakistan have suffered financial consequences as a result of abuses caused by such transactions. “Naked Short Sales” and Uncovered Short Sales have the potential to seriously disrupt the orderly conduct of business in a capital market and are a primary source of market manipulation and fraudulent practices. Therefore, Jordan’s capital markets should work to eliminate such transactions.

The issues of capital adequacy and uncovered short sales are symptoms of significant risk management issues in Jordan’s capital market.. Improvements are needed in the following areas: (i) JSC review and approval of the ASE Trading System, (ii) JSC daily oversight of the ASE Trading System’s transactions and (iii) JSC ongoing approval of material changes to the ASE’s Trading System.

Modern, proactive regulation of capital markets came into being as a result of the global financial crisis in 1929. Many countries realized that uncontrolled, unsupervised markets could cause major disruptions in domestic and international markets. One of the basic principles of early market regulation was a realization that capital markets were not capable of totally regulating themselves and required active oversight by qualified market regulators. Included in active oversight were requirements that securities trading venues, such as stock exchanges, stock markets and clearing houses submit their business and operational procedures for the review and approval of market regulators. Additionally, it was required that trading venues and clearing houses continuously submit to market regulators all material changes to their rules, regulations and operational procedures.

In most international capital markets the process of regulatory oversight remained substantially unchanged from the early 1930s until the introduction of automation into the securities industry in the 1960s. The rapid automation of the securities industry, especially securities trading systems, posed a problem for market regulators and created both a knowledge gap and a regulatory gap between the operations of capital markets and the regulation of capital markets. Securities exchanges and securities markets, motivated by revenue-generated trading profits, implemented automated trading systems at a rapid pace. As a result of increasing automation the rules, regulations and operational procedures for the trading of securities became computer-based with material changes to the trading environment migrating from traditional written business procedures to changes defined in computer code. Changes to automated trading systems were expressed in terms that were unfamiliar to market regulators. As the power and sophistication of automated trading systems increased so did the number of changes to the business and operating procedures of capital markets that were expressed in automated terms and were consequently implemented without the knowledgeable review and approval of market regulators.

The problem escalated and culminated, in the United States, with the 1971 launch of an entirely automated, remote-access trading system: the National Association of Securities Dealers Automated Quotation Stock Market (Nasdaq). The launch of Nasdaq created a situation wherein a significant portion of the market's trading rules, regulations and operational procedures were stated in automation terms which were not readily understandable by the market regulators. The situation was compounded by the dynamic, ever-changing nature of capital markets and the trading systems that support them. As trading volumes and post-trading settlement volumes increased dramatically, due to the implementation of automated systems, material changes to these systems were implemented based on the limited capacity of market regulators to fully understand the structure, content and impact of the changes.

The United States Securities and Exchange Commission (SEC) addressed the knowledge-gap by creating and implementing an Automation Review Policy (ARP). In order to implement ARP the SEC acquired the necessary technical resources to review and authorize new market systems and changes to existing systems. The implementation of ARP coincides with IOSCO's efforts to address the diligence required of market regulators in carrying out their market oversight responsibilities.

Secondary Market Systems – International Standards

In establishing its Principles IOSCO has included six specific recommendations for market regulators that address the oversight of Secondary Markets and the automated systems that support these markets.

The IOSCO recommendations, endorsed by all IOSCO members, for the oversight of Secondary Markets are⁹:

25. The establishment of trading systems including securities exchanges should be subject to regulatory authorization and oversight.
26. There should be ongoing regulatory supervision of exchanges and trading systems which should aim to ensure that the integrity of trading is maintained through fair and equitable rules that strike an appropriate balance between the demands of different market participants.
27. Regulation should promote transparency of trading.
28. Regulation should be designed to detect and deter manipulation and other unfair trading practices.
29. Regulation should aim to ensure the proper management of large exposures, default risk and market disruption.
30. Systems for clearing and settlement of securities transactions should be subject to regulatory oversight, and designed to ensure that they are fair, effective and efficient and that they reduce systemic risk.

In order to assist market regulators in establishing an effective oversight regime for Secondary Markets and Secondary Market systems, IOSCO recommends 10 supporting guidelines¹⁰:

- ***Operator Competence*** - Regulation should assess the competence of the operator of a trading facility as a Secondary Market. The competence of the operator is an ongoing requirement.
- ***Operator Oversight*** - The operator should be accountable to the regulator and, when assuming principal, settlement, guarantee or performance risk, must comply with prudential and other requirements designed to reduce the risk of non-completion of transactions.
- ***Admission of Products to Trading*** - The regulator should, as a minimum requirement, be informed of the types of securities and products to be traded on the trading system. The regulator should approve the rules governing the trading of the product. The proper design of the terms and conditions attaching to a product reduces the susceptibility of the product to market abuses, including manipulation. Consideration of product design principles and trading conditions is a critical aspect of ensuring a fair, orderly, efficient, transparent and liquid market
- ***Admission of Participants to the Trading System*** - The regulator should ensure that access to the system or exchange is fair and objective. The regulator should oversee the related admission criteria and procedures.
- ***Provision of Trading Information*** - The regulator should verify that all similarly situated market participants have equitable access to trading information. Any categorization of participants, for the purpose of access to pre-trade information, should be made on a reasonable basis. Any differential access to such information should not unfairly disadvantage specific categories of participants.
- ***Routing of Orders*** - The system's order routing procedures must be clearly disclosed to the regulator and to market participants. They must be applied fairly and should not be inconsistent with relevant securities regulation, e.g. client precedence or prohibition of front running or trading ahead of customers.
- ***Trade Execution*** - The order execution rules must be disclosed to the regulator and to market participants. They must be fairly applied to all participants.
- ***Post Trade Reporting and Publication*** - Information on completed transactions should be provided on the same basis to all participants. Full documentation and an audit trail must be available.
- ***Supervision of System and Participants by the Operator*** - The regulator should assess the reliability of all the arrangements made by the operator for the monitoring, surveillance and supervision of the trading system and its participants to ensure fairness, efficiency, transparency and investor protection, as well as compliance with securities legislation. The trading system operator should provide the regulator with its dispute resolution and appeal procedures, its technical systems standards and procedures related to operational failure, information on its record keeping system,

reports of suspected breaches of law, procedures for holding client funds and securities, and information on how trades are cleared and settled. There must be mechanisms in place to identify and address disorderly trading conditions and to ensure that contravening conduct, when detected, will be dealt with.

- ***Trading Disruptions*** - Details of procedures for trading halts, other trading limitations and assistance available to the regulator in circumstances of potential trading disruption on the system should be provided to the regulator.

In order to insure continuing oversight of the Secondary Market and Secondary Market trading systems, the regulator must remain satisfied that the relevant conditions thought necessary as pre-requisites to approval remain in place during operation. Market regulators must also insure that amendments and enhancements to the rules of the trading system should be provided to or approved by the regulator and approval of the trading system should be re-examined or withdrawn by the regulator when it is determined that the system is unable to comply with the conditions of its approval or with securities law or regulation.

Elimination of Uncovered Short Sales - Validation of ASE Buy Orders

In order to prevent “Naked Short Sales” or Uncovered Short Sales in the Jordanian capital market it is recommended that the ASE’s Trading System and the SDC’s Clearing and Settlement System be tightly-coupled on a real-time basis. The tightly-coupling of the two market-critical systems is recommended so that all Buy Orders submitted to the ASE be validated as to settlement availability of shares sold in the SDC’s Clearing and Settlement System prior to being displayed for execution on the ASE Trading System.

It is also recommended that the validation process in the SDC’s Clearing and Settlement System include the placement of a Pending Sale Pledge against the ASE Buy Order’s SDC securities position. The purpose of the Pending Sale Pledge is to prevent ASE members from selling the same securities more than once during the same trading session.

Pending Sale Pledges for executed Sell Orders would be removed during the SDC’s normal settlement processing. Pending Sale Pledges for advertised but not executed ASE Sell Orders would be removed after the SDC has completed its settlement process and prior to the opening of the ASE’s next Trading Session.

The real-time interfacing of the ASE’s Trading System with the SDC’s Clearing and Settlement System is intended to:

- Prevent “Naked Short Sales” or Uncovered Short Sales
- Prevent multiple Sell Orders being offered against a single share position within the same trading session

“Naked” Short Sales and Uncovered Short Sales - Summary

As outlined in this section the existence of “Naked Short Sales” or Uncovered Short Sales should be addressed as soon as possible. In order to make the Jordanian capital markets compliant with generally accepted international standards and best practices it is required that the JSC implement an oversight regime for Secondary Market systems that is compliant with IOSCO’s Objectives and Principles of Securities Regulation.

Area for Improvement

Establish Settlement Guarantee Fund

An adequate Settlement Guarantee Fund does not exist in the Jordanian capital market. The establishment of a properly-funded Settlement Guarantee Fund in Jordan will:

- *Improve the orderly conduct of business in the marketplace*
- *Decrease Credit Risk, Liquidity Pressures & Replacement Costs in the market.*
- *Increase confidence in the capital market.*
- *Enhance the markets’ ability to attract and retain investment capital.*
- *Increase the market’s to grow.*

Settlement Guarantee Fund and Delivery versus Payment(DVP) Settlement

Several international initiatives completed in the past few years have established standards designed to maintain the financial stability of capital markets by strengthening financial infrastructure. IOSCO has developed the *Objectives and Principles of Securities Regulation* (IOSCO, 1998) and the Committee on Payment and Settlement Systems (CPSS) of the Central Banks of the Group of Ten Countries (G10) has produced the *Core Principles for Systemically Important Payment Systems* (Bank for International Settlements, 2001).

In December of 1999 the CPSS and the Technical Committee of IOSCO established the Task Force on Securities Settlement Systems (Task Force) which in November of 2001 issued *Recommendations for Securities Settlement Systems* (Bank for International Settlements, 2001). In this publication the Task Force has made two specific recommendations that are relative to Settlement Guarantee Funds and their importance in the support of Delivery versus Payment (DVP) Settlement Services.

DVP settlement is a critical international standard for the protection of investors, the mitigation of risk in the capital markets and the conduct of safe and orderly business in a capital market. DVP settlement is a simple but extremely important Risk Management tool which insures that in the settlement of executed securities trades, securities will be delivered if, and only if, funds payable by the Buyer are paid to the Seller. In DVP settlement the converse also applies that funds due will be paid to the Seller if, and only if, securities due to the Buyer are delivered to the Buyer. In DVP settlement there is little chance that securities will be delivered without payment being received and that payment will be made but securities not received.

The reliability, safety and continuity of DVP settlement is highly dependent on a Central Securities Depository having access to a properly-funded SGF. Access to a properly-funded SGF provides a Central Securities Depository (CSD) with the ability to debit the SGF in order to cover the failure of a Buyer to provide cash payment (Cash Fail) or to cover the cost of purchasing securities in the open market to cover the failure of a Seller to deliver securities (Securities Fail).

The establishment of a properly-funded Settlement Guarantee Fund in the Jordanian capital market would significantly improve investor confidence in the market and help attract and retain individual and institutional investors.

Settlement Guarantee Fund and DVP Settlement – International Standards

In *Recommendations for Securities Settlement Systems* the CPSS and IOSCO Task Force make two specific recommendations that are relevant to DVP settlement and Settlement Guarantee Funds. The document's Recommendation 7 concerns DVP settlement and is stated as:

“CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.”¹¹

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

International standards recommend that CSDs extending intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits. The most effective and operationally practical collateral requirement mechanism to support DVP is a properly-funded Settlement Guarantee Fund (SGF).

Before addressing the SGF it is important to differentiate between the various forms of support funds that may exist in a capital market. There are basically three forms of support funds that are employed by capital markets to mitigate various forms of risk. The funds can be generically described as:

Investor Insurance Protection Fund: This type of fund is used to provide clients or customers of securities firms with protection in the event that assets of a securities firm's clients or customers are lost through mismanagement, fraud or insolvency on the part of the securities firm or the securities firm's staff. A fund of this type is usually funded by contributions from the securities industry and is normally managed by a central government agency. Typical of this type of fund is the Security Investors Protection Corporation (SIPC) which operates in the United States.

Exchange Member Fund: A fund of this type is normally funded by exchange Members and is managed by the exchange for the purpose of assisting member firms that encounter financial difficulty. The primary purpose of such a fund is to protect the reputation of the exchange and to provide protection primarily for exchange members and secondarily to exchange members' clients.

Settlement Guarantee Fund: The primary purpose of this type of fund is to provide the highest possible levels of assurance that DVP settlement services, as provided by CSD, will be continuous and will not be interrupted by the failure of Buyers to make cash payments or by Sellers to make securities deliveries. In most markets, a fund of this type is managed by the CSD, is funded by CSD participant contributions based on a participant's historical CSD cash payment and securities delivery obligations.

An operational SGF constitutes a Settlement Safety Net that contains SCD participant-contributed funds to be utilized to cover participants' failing cash obligations or failing securities obligations. Failing cash obligations are covered by the CSD debiting the SGF for amounts necessary to cover participants' failing cash obligations. Failing securities obligations are covered by the CSD debiting the SGF for amounts necessary to purchase the failing securities on the open market. In either case the SGF is used to cover the failing positions with the CSD subsequently recovering the amounts debited from the failing participant and assessing and collecting a meaningful penalty from the failing participant for its use of the SGF.

In order to assure that the SGF contains sufficient funds to prevent systemic disruption in the capital market, international standards recommend utilizing the Lamfalussy Standard¹² as the basis for providing a minimal level of funding to the SGF. The Lamfalussy Standard specifies that, at a minimum, netting systems must be able to withstand the failure of the largest single net debtor to the system.

The Lamfalussy Standard was originally proposed to mitigate risks in cross-border and multi-currency netting schemes. Since it was originally proposed in 1990 the Lamfalussy Standard has been accepted and applied widely not only in the specific field for which it was developed, but also to payment, clearing and settlement systems of many types. The Lamfalussy Standard has also been adapted to differing capital market conditions and in particularly to transition and emerging markets.

The second recommendation made by the Task Force in *Recommendations for Securities Settlement Systems* that is relevant to DVP settlement and Settlement Guarantee Funds is Recommendation 9 which deals with CSD risk controls to address participants failures to settle. Recommendation 9 is stated as:

“CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.”¹³

In operating a DVP settlement system there is always a risk that participants will be unable to settle their cash and securities obligations. A CSD participant's failure to meet its cash or securities obligations can impose credit losses and liquidity pressures on the CSD or on the CSD's other participants. If those losses and liquidity pressures exceed the financial resources of those expected to bear them, further failures to settle would result and the system as a whole may fail to achieve timely settlement. If so, both the securities markets the CSD serves and payment systems the CSD interacts with may be disrupted.

International standards recommend that CSDs impose risk controls to limit the potential for cash and securities fails to cause systemic disruption. It is recommended that, at a minimum, the controls should enable the system to complete settlement following a failure to settle by the CSD participant with the single largest payment obligation. Such failures may not occur in isolation, however, and systems should, wherever possible, be able to survive additional failures. In determining the precise level of comfort to target, each system will need to balance carefully the additional costs to participants of greater certainty of settlement against the occurrence probability and potential impact of multiple settlement failures.

To achieve the chosen comfort level the CSD can use a variety of risk controls. The appropriate choice of controls depends on several factors, including the systemic importance of the settlement system, the volume and value of settlements, and the effect of the controls on the efficiency of the system.

The most appropriate and practical risk control for implementation in the Jordan capital market is an SDC-managed, participant-funded Settlement Guarantee Fund (SGF). The SGF should be funded at either one of two levels:

Level I – Non-Tightly Coupled: This funding level is required if the ASE Trading System and the SDC Clearing & Settlement System are not tightly-coupled. In an environment where the tightly-coupling is not operating Uncovered Short Sales, securities fails and cash fails will occur. In such an environment the SGF must contain sufficient funds to cover Uncovered Short sales, securities fails and cash fails.

Level II – Tightly-Coupled: This funding level may be used if, and only if, the ASE Trading System and the SDC Clearing & Settlement System are tightly coupled. In a tightly-coupled environment Uncovered Short Sales and securities fails are eliminated and as a result the SGF can be funded at a level sufficient to cover cash fails.

In mid-2002 SGF models were constructed to determine the size of a properly-funded SGF that would provide reasonable levels of coverage against Uncovered Short Sales, securities fails and cash fails historically existent in the Jordanian market. Based on eight

(8) months of historic market data the recommended funding levels for Level I and Level II were determined as:

Level I – JD 7.326 million: This level represents the amount of readily available funds and/or liquid collateral equal to the combined value of the SDC’s three (3) most active participants’ average daily cash and securities obligations for a period of four (4) business days (T+3 plus 1). The SGF coverage is set at T+3 plus 1 due to several factors currently present in the Jordan market:

- ***Absence of a Securities Borrowing & Lending Program***
- ***Absence of Trading Limits at the ASE***
- ***Weak Risk Management environment***
- ***Weak Capital Adequacy regulation, compliance & enforcement***

Level II: JD 0.651 million: This level represents the amount of readily available funds and/or liquid collateral equal to the combined value of the SDC’s three (3) most active participants’ average daily cash obligations for a period of three (3) business days (T+3).

Settlement Guarantee Fund and DVP Settlement – Summary

According to IOSCO there are three primary, overall objectives for securities market regulators:

- The protection of investors;
- Ensuring that markets are fair, efficient and transparent;
- The reduction of systemic risk.

IOSCO recognizes the importance of tightly-coupling in achieving these objectives. In Section 13 of Objectives and Principles of Securities Regulation IOSCO states:

“The arrangements for clearing and settlement systems should provide for the expeditious verification of a trade. The standard should be as close to real time verification as possible. Information should be available which records the transaction, allows it to be checked and provides the basis for settlement. Fully automated links between the trading system and the settlement system will generally assist in such verification.”¹⁴

A properly-funded SGF is essential to the fair, efficient and transparent operation of a securities market and is critical to a securities market’s ability to attract and retain investment capital. As previously mentioned in this report the competition for investment capital has become intense with levels of competition expected to increase rather than decrease in the future.

In order for the capital market in Jordan to survive and compete, the market must meet generally accepted international standards. In order for the capital market in Jordan to grow and effectively function as the funds engine that feeds the national economy, it must exceed generally accepted international standards.

The operation of a properly-funded SGF is essential for the growth of the Jordanian capital market.

Area for Improvement

Enhance Market Surveillance

Oversight, surveillance and compliance of securities market systems requires enhancement. The JSC needs the expertise to review, approve and oversee electronic systems that support securities market operations. Areas for improvement in regulatory surveillance include:

- *Operator Competence*
- *Operator Oversight*
- *Admission of products to trading system*
- *Admission of participants to trading system*
- *Order Routing*

As an international organization, IOSCO fully recognizes that the level of regulation in individual securities markets will depend upon the market's characteristics, including the structure of the market, the sophistication of market users and rights of access and the types of products traded. It is also acknowledged by IOCSO that in some cases it will be appropriate that a trading system should be largely exempt from direct regulation but will require approval from the relevant regulator after proper consideration by the regulator of the type of approval, or exemption, necessary.

The establishment of new trading systems requires proper approval by securities market regulators. The regulator must also remain satisfied that the relevant conditions thought necessary as pre-requisites to approval remain in place during the trading system's operation and amendments to the rules of the trading system should be reviewed by and approved by the regulator. Additionally, approval of the trading system should be re-examined or withdrawn by the regulator when it is determined that the system is unable to comply with the conditions of its approval or with securities law or regulation.

IOSCO recommends that the relevant matters to be included when approving trading systems for operation and approving material changes to the operation of the trading system include:

Operator Competence - Regulators should assess the competence of the operator of a trading facility as a secondary market. The competence of the operator is also an ongoing requirement.

Operator Oversight - The operator of a trading system should be accountable to the regulator and, when assuming principal, settlement, guarantee or performance risk, must comply with prudential and other requirements designed to reduce the risk of non-completion of transactions.

Admission of Products to Trading - The regulator should, as a minimum requirement, be informed of the types of securities and products to be traded on the trading system. The regulator should review and approve the rules governing the trading of the product. The proper design of the terms and conditions attaching to a product reduces the susceptibility of the product to market abuses, including manipulation. Consideration of product design principles and trading conditions is a critical aspect of ensuring a fair, orderly, efficient, transparent and liquid market.

Admission of Participants to the Trading System - The regulator should ensure that access to the exchange's trading system is fair and objective. The regulator should review, approve and oversee the related admission criteria and procedures.

Provision of Trading Information - The regulator should verify that all similarly situated market participants have equitable access to trading information. Any categorization of participants, for the purpose of access to pre-trade information, should be made on a reasonable basis.

Any differential access to such information should not unfairly disadvantage specific categories of participants.

Routing of Orders - The system's order routing procedures must be clearly disclosed to the regulator and to market participants. Regulators must insure that order routing procedures are applied fairly and should not be inconsistent with relevant securities regulation such as client precedence or prohibition of front running or trading ahead of customers.

Trade Execution - Order execution rules must be disclosed to the regulator and to market participants. Regulators must oversee market operations and transactions to insure that order execution rules are fairly applied to all participants in a trading system.

Post Trade Reporting and Publication - Information on completed transactions should be provided on the same basis to all participants. Full documentation, including Market Replay, and transaction audit trails must be available for the regulators review.

Supervision of System and Participants by the Operator - The regulator should assess the reliability of all the arrangements made by the operator for the monitoring, surveillance and supervision of the trading system and its participants to ensure fairness, efficiency, transparency and investor protection, as well as compliance with securities legislation. The trading system operator should provide the regulator with the operator's dispute resolution and appeal procedures, its technical systems standards and procedures related to operational failure, information on its record keeping system, reports of suspected breaches of law, procedures for holding client funds and securities, and information on how trades are cleared and settled. There must be mechanisms in place to identify and address disorderly trading conditions and to ensure that contravening conduct, when detected, will be dealt with.

Trading Disruptions – Details of procedures for Trading Halts, other trading limitations and assistance available to the regulator in circumstances of potential trading disruption in the trading system should be provided to the regulator for review and approval.

SECTION III

INTERNATIONAL STANDARDS

&

JORDAN SECURITIES COMMISSION

REGULATORY ISSUES

SECTION III: The Jordan Securities Commission – Regulatory Deficiencies

The International Organization of Securities Commissions (IOSCO) is the internationally recognized standard-setting body for securities market regulation.

A comparison of IOSCO recommendations and the existing regulatory documentation in the Jordan capital market has identified areas for risk management improvement at the JSC. Enhancement of the areas listed below will assist the JSC comply with IOSCO's Objectives & Principles of Securities Regulation.¹⁵

Area for Improvement

Develop Clear, Concise, Well-Documented Procedures

IOSCO Objectives & Principles recommend that a securities regulator in exercising its powers and discharging its functions, should adopt processes which are:

- consistently applied;
- comprehensible;
- transparent to the public;
- fair and equitable.

The JSC's procedures are fair and equitable and are applied with equitable consistency. However, these procedures are not readily available to market participants in a consistent, codified format. This situation is not unique to Jordan. It exists in many emerging markets due to the tendency of security regulators in such markets to operate on a somewhat case-by-case basis..

Due to cultural traditions many emerging and transition markets tend to operate on an oral basis with very little procedural documentation. Although market regulation may function effectively in these markets, the lack of clear, concise and well-documented regulatory procedures places the market at a distinct disadvantage in attracting investment capital. A major component of most investors' decisions to participate, or not participate, in a capital market is the transparency and strength of the market's rule of law. Investors, especially institutional investors, require a clear statement of their rights and recourse procedures available in the marketplace. In many countries institutional investors, such as pension funds, have a well-defined fiduciary responsibility governing the choice of investment markets. In cases where institutional investors are governed by well-defined due diligence rules, fund managers failing to exercise reasonable levels of due diligence may incur criminal as well as civil liabilities.

Recommendations

Prior to undertaking additional regulatory tasks, it is recommended that the JSC codify and publish its regulatory procedures. The publication of clear, concise and well-documented regulatory procedures will help establish the Jordanian capital market as a marketplace that offers investors a rule of law based on international standards. It is also recommended that the JSC periodically publish amendments and decisions that have bearing on the market's regulatory procedures.

Adherence to IOSCO standards require that securities regulators formulate policies that should:

- have a process for consultation with the public including those who may be affected by the policy;
- publicly disclose policies in important operational areas
- observe standards of procedural fairness;
- have regard to the cost of compliance with the regulation

Of the four IOSCO policy formation recommendations there are two where compliance in the Jordanian capital market is weak: (i) public consultation and (ii) operational area disclosure.

Recommendations

It is recommended that the JSC codify and publish its policies relating to its public consultation process. It is also recommended that the JSC create and publish a comprehensive Automation Review Policy (ARP). The capital market in Jordan is highly automated. However, the JSC should establish a policy to review and approve the implementation of new automated systems or material enhancements to existent automated systems.

Area for Improvement

Develop Self-Regulatory Organizations (SRO)

In its Objectives and Principles of Securities Regulation IOSCO states that SROs can be a valuable complement to a market's regulators in achieving the objectives of securities regulation.

In regards to SROs IOSCO specifically recommends that:¹⁶

- The regulatory regime should make appropriate use of Self-Regulatory Organizations (SROs) that exercise some direct oversight responsibility for their respective areas of competence and to the extent appropriate to the size and complexity of the markets.
- SROs should be subject to the oversight of the regulator and should observe standards of fairness and confidentiality when exercising powers and delegated responsibilities.

Due to the variety of capital markets throughout the world various models of self-regulation exist and the extent to which self-regulation is used varies. The common characteristics of SROs in most jurisdictions are a separation from the government regulator, the participation of business, industry and, if appropriate, investors in the operations of the SRO.

The widespread use of SROs have demonstrated the substantial benefits resultant from the implementation of self-regulation:

- SROs may require the observance of ethical standards which go beyond government regulations;
- SROs may offer considerable depth and expertise regarding market operations and practices, and may be able to respond more quickly and flexibly than the government authority to changing market conditions.

In order to insure safety and security in the marketplace securities regulators must require an SRO to meet appropriate standards before allowing the organization to exercise its authority and the regulator's oversight of the SRO should be ongoing.

Once the SRO is operating, a securities regulator should assure itself that the exercise of the SRO's power is in the public interest, and results in fair and consistent enforcement of applicable securities laws, regulations and appropriate SRO rules.

The effectiveness of an SRO may be compromised due to conflicts of interest and as such market regulators should monitor and address the potential that may arise for conflict of interest. The regulator must ensure that no conflict of interest arises because of the SRO's access to valuable information about market participants, whether or not the market participants are members of the SRO itself. The risk of conflict arising may be acute when an SRO is responsible both for the supervision of its members and the regulation of a market sector.

As a condition to authorization a securities regulator should require an SRO to:

- have the capacity to carry out the purposes of governing laws, regulations and SRO rules, and to enforce compliance by its members and associated persons with those laws, regulations, and rules;
- treat all members of the SRO and applicants for membership in a fair and consistent manner;
- develop rules that are designed to set standards of behavior for its members and to promote investor' protection;
- submit to the regulator its rules for review and / or approval as the regulator deems appropriate
- ensure that the rules of the SRO are consistent with the public policy directives established by the regulator;
- cooperate with the regulator and other SROs to investigate and enforce applicable laws and regulations;
- enforce its own rules and impose appropriate sanctions for non-compliance;
- assure a fair representation of members in selection of its directors and administration of its affairs;

- avoid rules that may create uncompetitive situations; and
- avoid using the oversight role to allow any market participant unfairly to gain advantage in the market.

Regardless of the extent to which self-regulation is used, the securities regulator should retain the authority to inquire into matters affecting investors or the market. Where the powers of an SRO are inadequate for inquiring into or addressing particular misconduct or where a conflict of interest necessitates it, the regulator should take over the responsibility for an inquiry from an SRO. It is important, therefore, to ensure that the information provided by the SRO to the regulator allows these matters to be identified at an early stage.

In order to support the integrity and professionalism of the capital market, SRO's should follow similar professional standards of behavior on matters such as confidentiality and procedural fairness as would be expected of the regulator.

Recommendations

Due to the current lack of SROs in Jordan, it is recommended that the JSC, authorize the ASE and the SDC to act as SROs for their respective market sectors.

Area for Improvement

Develop Securities Market Surveillance and Compliance Procedures

Supervision of market intermediaries' conduct through inspection and surveillance helps to ensure the maintenance of high standards and the protection of investors. These preventative programs are a necessary complement to investigation and enforcement programs.

IOSCO's Principles for the Enforcement of Securities Regulation¹⁷ have three components:

- The regulator should have comprehensive inspection, inspection and surveillance powers.
- The regulator should have comprehensive enforcement powers.
- The regulatory system should ensure an effective and credible use of inspection, investigation, surveillance and enforcement powers and implementation of an effective compliance program.

International standards require securities regulators to adopt a proactive approach rather than a reactive approach. In order to encourage proactive regulation IOSCO also recommends that regulators should have the power to require the provision of information or to carry out inspections of business operations whenever it believes it necessary to ensure compliance with relevant standards. The suspicion of a breach of law should not be a necessary prerequisite to use of inspection powers in respect of authorized or licensed persons.

Generally accepted international standards recommend that inspections by securities regulators may be carried out by the regulator itself or another competent authority. Alternatively, international standards provide for the regulator delegating such authority to SROs or using third parties, properly supervised, to carry out some of this inspection work on its behalf. These third parties should also be subject to disclosure and confidentiality requirements. Such inspections must be carried out with adequate instruments and techniques, and these may vary from market to market.

In some areas such as the scrutiny of trading on an exchange, the use of technology will be necessary for effective regulation. In other areas, including the inspection of broker conduct, consideration needs to be given to the balance between on-site inspection and interview and the requirement to provide information from time to time which can be reviewed off-site.

The JSC is vested under law with inspection, investigation, surveillance and enforcement powers that are compliant with international standards. However, the JSC market regulation regime needs to be strengthened in order to develop an internationally compliant regulatory environment.

The primary weakness in the regulatory system is the lack of automated surveillance on the ASE's trading system. In order to effectively regulate the Jordanian securities markets on a proactive basis it is critical that all transactions on the ASE be reviewed for compliance with market rules and regulations. Participant Transaction Profiles (PTPs) should also be created for members of the ASE in order to identify potential insider trading activity or market cornering.

At present there is no electronic surveillance on the ASE trading system. In international securities markets it is a generally accepted axiom that the operation of effective electronic trading surveillance systems is a significant preventive measure in averting market abuses.

Recommendations

In order to raise the level of market surveillance to the level of international standards it is recommended that the JSC:

- Empower the ASE as a Self-Regulatory Organization
- Require the ASE to implement a Market Surveillance System that is compliant with international standards,
- Require the ASE's Market Surveillance System to provide real-time access to the JSC
- Establish a reporting systems that requires the ASE to transmit potential incidences of market abuse to the JSC on a daily basis

Area for Improvement

Enhance Information-Sharing Procedures with Other National and International Regulators

International standards fully realize that there may be an important need to share information at a domestic level where regulatory divisions based on institutional form exist or where the securities law overlaps with the general law of a jurisdiction. So, for example, cases of fraud or money laundering that involve dealings in securities may require close cooperation between two or more domestic regulators, including law enforcement, regulatory and judicial authorities.

It is also recognized that the increasing internationalization of financial activities means that information relevant to authorizations or approvals is often beyond the immediate jurisdictional reach of the competent regulator. For example, an application for a license may be received from a person known to be registered in another jurisdiction, or registration may be sought for the same offer documents in several jurisdictions.

Similarly, threats to systemic stability are not confined to domestic factors and may include the behavior of individual financial institutions in another jurisdiction. Regulators must consider whether they have adequate information sharing arrangements with regulators in other jurisdictions to allow them to identify and address these threats.

Further, an increasing number of companies have securities listed in more than one jurisdiction and it is common for a significant part of an issuer's commercial activity to take place in a country other than the one in which its stock is listed. Investors frequently

invest in foreign markets and securities either directly or in managed funds. An increasing number of collective investment schemes are marketed across jurisdictional boundaries. It is also common for scheme promoters, managers and custodians to be located in several different jurisdictions and they may not be in the same jurisdiction as investors to whom the scheme is promoted.

Fraud, market manipulation, insider trading and other illegal conduct that crosses jurisdictional boundaries can and does occur more and more frequently in a global market aided by modern telecommunications.

The JSC is empowered to cooperate with domestic and international regulators. The JSC's ability to effectively do so could be greatly enhanced by a comprehensive electronic Market Surveillance System. The JSC has consistently been an active member of IOSCO but the absence of an operational Market Surveillance System limits the JSC's ability to obtain and share critical regulatory information.

Recommendations

The recommendations to remedy the weaknesses in domestic and international information-sharing are identical to the recommendations necessary to remedy the weaknesses in Securities Market Surveillance & Compliance Procedures.

Area for Improvement

Develop Clear, Concise and Well-Documented Rules and Procedures on Protection of Minority Shareholders

To safeguard the fair and equitable treatment of shareholders, international standards recommend that regulation should require disclosure of the security holdings of management and of those persons who hold a substantial beneficial ownership interest in a company. This is generally regarded as information necessary to informed investment decisions in the secondary market.

The level at which disclosure is required varies from market to market, but is generally set at a level well below that which would be characterized as a controlling interest. More stringent disclosure requirements may be appropriate for persons contemplating exercise of control.

The nature of the disclosure required also varies from market to market but full public disclosure is generally thought to best meet the underlying policy rational of disclosure where a change in control of a company has occurred or is contemplated. Regulation should have regard to the information needs of the shareholders of the subject company.

The information necessary to enable informed decision making will vary with the nature of the transaction but the general objective remains true for cash offers, offers by way of tender and exchange, business combinations and privatizations. Generally, in the circumstances described in the preceding sentence, this will require that shareholders of a company:

- have a reasonable time in which to consider any offer under which a person would acquire a substantial interest in the company;
- are supplied with adequate information to enable them to assess the merits of any proposal under which a person would acquire a substantial interest in the company;
- as far as practicable, have reasonable and equal opportunities to participate in any benefits accruing to the shareholders under any proposal under which a person would acquire a substantial interest in the company;
- receive fair and equal treatment (in particular, minority shareholders) in relation to the proposal;
- are not unfairly disadvantaged by the treatment and conduct of the directors of any party to the transaction or by the failure of the directors to act in good faith in responding to or making recommendations with respect to the proposal.

The JSC has exhibited the highest levels of professional and ethical behavior in its handling of matters pertaining to the protection of minority shareholder rights. The primary source of the deficiency lies in the lack of codification and dissemination of the JSC's rules and regulations pertaining to shareholder rights.

Recommendations

It is recommended that the JSC codify and disseminate its rules and regulations relating to shareholder rights in Privatization Issues, Initial Public Offerings and Secondary Market Trading.

Area for Improvement

Develop Clear, Concise and Well-Documented Rules Procedures to Monitor Market Intermediaries' Capital Adequacy and Prudential Requirements

International standards generally consider Market Intermediaries to include those who are in the business of managing individual portfolios, executing orders, dealing in or distributing securities and providing information relevant to the trading of securities.

Regulation for the various types of intermediaries should address entry criteria, capital and prudential requirements, ongoing supervision and discipline of entrants, and the consequences of default and financial failure.

The oversight of market intermediaries should primarily be directed to the areas where their capital, client money and public confidence may most be put at risk. These include the risks that:

- incompetence or poor risk management may lead to a failure of due execution, a failure to obtain due settlement or a failure to provide adequate advice;
- breach of duty may lead to misappropriation of client funds or property, the misuse of client instructions for the intermediary's own trading purposes such as "front running" or trading ahead of customers orders, manipulation and other trading irregularities, or fraud on the part of the intermediary or its employees;
- the insolvency of an intermediary may result in loss of client money, securities or trading opportunities, and may reduce confidence in the market in which the intermediary participates.

International standard-setting bodies such as IOSCO recognize that the protection of investors and stability of financial systems are increased by an adequate supervision of ongoing capital standards.

Capital Adequacy standards foster confidence in the financial markets and should be designed to allow a firm to absorb some losses, particularly in the event of large adverse market moves, and to achieve an environment in which a securities firm could wind down its business over a relatively short period without loss to its customers or the customers of other firms and without disrupting the orderly functioning of the financial markets. It is recommended that Capital Adequacy standards should be designed to provide supervisory authorities with time to intervene to accomplish the objective of orderly wind down.

A firm should ensure that it maintains adequate financial resources to meet its business commitments and to withstand the risks to which its business is subject. Risk may result from the activities of unlicensed and off balance sheet affiliates and regulation should consider the need for information about the activities of these affiliates.

A Capital Adequacy Test for market intermediaries is recommended by international standard-setting bodies. The Capital Adequacy Test should address the risks faced by a market intermediary judged by reference to the nature and amount of the business undertaken by the firm.

Currently there is no Capital Adequacy Test applied to market intermediaries in the Jordanian capital market.

Recommendations

It is recommended that the JSC devise and implement a Capital Adequacy Test for all market intermediaries and acquire the necessary professional support services to adapt Capital Adequacy Test models for use in the Jordanian capital market.

It is also recommended that the JSC establish a Capital Adequacy review schedule to ensure that market intermediaries meet their requirements on an ongoing basis.

Area for Improvement

Develop Clear, Concise and Well-Documented Requirements for Market Intermediaries' Organization and Operations Standards.

International standards recommend that market intermediaries be required to comply with standards for internal organization and operational conduct that aim to protect the interests of clients, ensure proper management of risk, and which management component of the intermediary accepts primary responsibility for these matters.¹⁸ Market intermediaries should conduct themselves in a way that protects the interests of their clients and helps to preserve the integrity of the market.

Generally accepted standards in the global marketplace require that the management of a market intermediary should bear primary responsibility for ensuring the maintenance of appropriate standards of conduct and adherence to proper procedures by the whole firm.

This responsibility includes the proper management of the risks associated with the business of the intermediary.

Market regulators should not be expected to remove risk from the market place, but regulators should ensure that there is proper management of that risk. Periodic evaluation of Risk Management processes within a regulated entity is appropriate and SROs and third parties, such as external auditors, may be used to assist in this process.

Instances of operational breach can occur despite the existence of internal procedures designed to prevent the relevant misconduct or negligence. It is not practical for the regulator to oversee adherence to those internal procedures on a day to day basis. Adherence to internal procedures is the responsibility of the senior management of the intermediary and senior management of a market intermediary must ensure that they are able to discharge that responsibility. Internal standards require that the management of market intermediaries must understand the nature of the firm's business, its internal control procedures and its policies on the assumption of risk. They must also clearly understand the extent of their own authority and responsibilities. Senior management of a market intermediary must have access to all relevant information about the firm's business on a timely basis and have available to them all necessary advice on that business and on their own responsibilities. It is critical that information related to the Risk Management of a market intermediary be available to market regulators, promptly, upon request.

The details of the appropriate internal organization of a firm will vary according to the size of the firm, the nature of its business and the risks it undertakes but generally regulation of market intermediaries should adhere to the following standards.¹⁹

- Integrity and Diligence - A firm should observe high standards of integrity and fair dealing and should act with due care and diligence in the best interests of its customers and the integrity of the market.
- Terms of Engagement - A written contract of engagement with a customer will generally be necessary and appropriate. A firm should similarly be ready to provide a customer with a full and fair account of the fulfillment of its responsibilities to the customer.
- Information About Customers - A firm should seek from its customers any information about their circumstances and investment objectives relevant to the services to be provided. Policies and procedures should be established which ensure the integrity, security, availability, reliability and thoroughness of all information, including documentation and electronically stored data, relevant to the firm's business operations. Where the activities of an intermediary extend to the giving of specific advice, it is of particular importance that the advice be given upon a proper understanding of the needs and circumstances of the customer: a matter generally encompassed in the rule of conduct that the intermediary must "know your client."

- Information for Customers - A firm should make adequate disclosure to its customers, in a comprehensible and timely way, of information needed to make a balanced and informed investment decision. It may be necessary for regulation to ensure disclosure in a particular form where products carry a risk that may not be readily apparent to the ordinary investor. Recruitment and training should ensure that staff who provide investment advice understand the characteristics of the products they advise upon.
- Customer Assets - Where a firm has control of or is otherwise responsible for assets belonging to a customer which it is required to safeguard, it should arrange proper protection for them such as segregation and identification of assets, in accordance with the responsibility it has accepted. These measures are intended to: provide protection from defalcation; facilitate the transfer of positions in cases of severe market disruption; prevent the use of client funds for proprietary trading or the financing of an intermediary's operations; and assist in orderly winding up upon the insolvency of an individual firm should that be necessary.
- Market Practice - A firm should observe high standards of market conduct, and it should also comply with any relevant law, code or standard as it applies to the firm. The firm's compliance with all applicable legal and regulatory requirements as well as with the firm's own internal policies and procedures monitored by a separate compliance function that reports directly to senior management in a structure that makes it independent from operational division..
- Operational Controls - Effective policies, operational procedures and controls in relation to the firm's day-to-day business operations should be established. The effectiveness of those operational procedures and controls should be evaluated in the light of whether they serve reasonably to ensure:
 - (a) an effective exchange of information between the firm and its clients, including required disclosures of information to clients;
 - (b) the integrity of the firm's dealing practices, including the treatment of all clients in a fair, honest and professional manner;
 - (c) the safeguarding of both the firm's and its clients' assets against unauthorized use or disposition;
 - (d) the maintenance of proper accounting and other applicable records, and the reliability of the information;
 - (e) compliance with all relevant legal and regulatory requirements;
 - (f) appropriate segregation of key duties and functions, particularly those duties and functions which, when performed by the same individual, may result in undetected errors or may be susceptible to abuses which expose the firm or its clients to inappropriate risks.

- Conflicts of Interests - A firm should try to avoid any conflict of interest arising but, where the potential for conflicts arise, should ensure fair treatment of all its customers by proper disclosure, internal rules of confidentiality or declining to act where conflict cannot be avoided. A firm should not place its interests above those of its customers.
- Proprietary Trading - There should be clear policies within the firm covering the circumstances in which proprietary trading is permitted. The regulator should obtain information about a regulated firm's own proprietary trading and determine that the firm's net capital is adequate in relation to the risk associated with its proprietary trading. The information provided should be sufficient to allow for an understanding of the overall business and risk profile of a firm and its affiliates. It should also allow for the regulation of margin trading and the detection of conflicts of interest or manipulative practices.

Most of the requirements, above, are incorporated in some manner in the Jordanian capital markets regulatory regime. However, there is nothing in the regulatory regime that requires market intermediaries to submit to regulators viable plans for compliance. Additionally, the JSC does not have a plan in place requiring periodic submission and review of market intermediaries' internal operations plans and Risk Management procedures.

Although requirements for market intermediaries' operational structure and Risk Management procedures are incorporated in the market's regulatory regime, the requirements are not codified and are not available to market participants and the general public in a clear, concise and well documented format.

Recommendations

It is recommended that the JSC:

- collect and codify all requirements relating to market intermediaries' operational structures and Risk Management procedures.
- benchmark codified procedures against international standards
- identify gaps in current codified requirements and international standards
- incorporate gap requirements into JSC internationally compliant-codified requirements
- present internationally-compliant codified requirements to market participants for comment
- modify internationally-compliant codified requirements, as required
- establish internal procedures for the ongoing submission and review of market intermediaries' operational structure plans and Risk Management procedures.

Area for Improvement

Develop Clear, Concise and Well-Documented Procedures Governing Market Intermediary Defaults.

In all capital markets the failure of a market intermediary will have systemic consequences and as such international standards require that market regulator have a clear plan for dealing with the eventuality of failure by market intermediaries. Due to the fact that the circumstances of a market intermediary's financial failure are unpredictable, plans dealing with such an eventuality need to be flexible.

Market regulators should attempt to minimize damage and loss to investors caused by the failure of a market intermediary. A combination of actions to restrain conduct, ensure that assets are properly managed and provide information to the market may be necessary.

Depending upon the prevailing domestic bank regulatory model, it may also be necessary for securities market regulators to cooperate with banking regulators, and if the domestic arrangements require it, insolvency regulators. As a minimum position, securities regulators should have identified contact persons at other domestic and key foreign regulators.

Deficiencies relating to market intermediary default procedures are based on a lack of codification and publication of procedures rather than an actual lack of procedures in Jordan's capital market. In order to be effective and compliant with international standards, procedures relating to the default of a market intermediary and the orderly termination of the intermediary's business affairs must be clear, concise, comprehensively stated and readily available to market participants and the general public.

In order to maintain regulatory transparency and confidence in the Jordanian marketplace it is critical that market participants, it is important that the JSC be perceived as operating in accordance with open and transparent procedures that are known to market participants and the general public.

It is also important that in the event of the JSC's having to deal with the default of a market intermediary, all oversight and termination proceedings be disclosed so as to demonstrate the effectiveness of the JSC's default procedures.

Recommendations

In order to comply with international standards it is recommended that the JSC:

- collect and codify all procedures relating to the default of a market intermediary
- benchmark codified procedures against international standards
- identify gaps in current codified procedures and international standards
- incorporate gap requirements into JSC internationally-compliant codified procedures

- present internationally-compliant codified procedures to market participants for comment
- modify internationally-compliant codified procedures, as required
- disseminate internationally-compliant procedures to market participants and the general public

Area for Improvement

Improve Procedures for the Authorization and Oversight of Trading Systems.

International standard-setting bodies recognize that the level of regulation related to markets with electronic trading systems will depend upon the proposed market characteristics, including the structure of the market, the sophistication of market users and rights of access and the types of products traded. In some cases it will be appropriate that a trading system should be largely exempt from direct regulation but will require approval from the relevant regulator after proper consideration by the regulator of the type of approval, or exemption, necessary.

The implementation and operation of trading systems and enhancements to trading systems requires the review and approval of market regulators. When direct regulation is appropriate, relevant matters include:

- **Operator Competence** - Regulation should assess the competence of the operator of a trading facility as a secondary market. The competence of the operator is an ongoing requirement.
- **Operator Oversight** - The operator should be accountable to market regulators and, when assuming principal, settlement, guarantee or performance risk, must comply with prudential and other requirements designed to reduce the risk of non-completion of transactions.
- **Admission of Products to Trading** - The regulator should, as a minimum requirement, be informed of the types of securities and products to be traded on the trading system. The regulator should approve the rules governing the trading of the product. The proper design of the terms and conditions attaching to a product reduces the susceptibility of the product to market abuses, including manipulation. Consideration of product design principles and trading conditions is a critical aspect of ensuring a fair, orderly, efficient, transparent and liquid market
- **Admission of Participants to the Trading System**- The regulator should ensure that access to the system or exchange is fair and objective. The regulator should oversee the related admission criteria and procedures.

- Provision of Trading Information- The regulator should verify that all similarly situated market participants have equitable access to trading information. Any categorization of participants, for the purpose of access to pre-trade information, should be made on a reasonable basis. Any differential access to such information should not unfairly disadvantage specific categories of participants.
- Routing of Orders - The system's order routing procedures must be clearly disclosed to the regulator and to market participants. Procedures must be applied fairly and should not be inconsistent with relevant securities regulation such as client precedence or prohibition of front running or trading ahead of customers.
- Trade Execution – The system's order execution rules must be disclosed to the regulator and to market participants. Order execution rules must be fairly applied to all participants.
- Post Trade Reporting and Publication- Information on completed transactions should be provided on the same basis to all participants. Full documentation and an audit trail must be available.
- Supervision of System and Participants by the Operator - The regulator should assess the reliability of all the arrangements made by the operator for the monitoring, surveillance and supervision of the trading system and its participants to ensure fairness, efficiency, transparency and investor protection, as well as compliance with securities legislation. The trading system operator should provide the regulator with its dispute resolution and appeal procedures, its technical systems standards and procedures related to operational failure, information on its record keeping system, reports of suspected breaches of law, procedures for holding client funds and securities, and information on how trades are cleared and settled. There must be mechanisms in place to identify and address disorderly trading conditions and to ensure that contravening conduct, when detected, will be dealt with.
- Trading Disruptions - Details of procedures for trading halts, other trading limitations and assistance available to the regulator in circumstances of potential trading disruption on the system should be provided to the regulator.

Subsequent to the initial review and approval of an electronic trading system, market regulators must remain satisfied that the relevant conditions thought necessary as pre-requisites to initial approval remain in place during the trading system's operation. It is also required by international standards that amendments to the rules of the trading system and changes in the operation of the trading system should be provided to and approved by the regulator. Approval of the trading system should be re-examined or withdrawn by the regulator when it is determined that the system is unable to comply with the conditions of its approval or with securities law or regulation.

The regulation of trading systems operating in the secondary market must include requirements to eliminate and/or mitigate market manipulation, misleading conduct, insider trading and other fraudulent or deceptive conduct which may distort the price discovery system, distort prices and unfairly disadvantage investors.

Such requirements may be addressed by direct surveillance, inspection, reporting, product design requirements, position limits, settlement price rules or market halts complemented by vigorous enforcement of the law and trading rules. Market regulators must ensure that there are in place arrangements for the continuous monitoring of trading and that such arrangements should trigger inquiries whenever unusual and potentially improper trading occurs.

In addition to surveilling electronic trading systems, international standards require that market regulators utilize these systems to monitor market intermediaries' large exposures. A large exposure is generally defined as an open position that is sufficiently large to pose a risk to the market or to a clearing firm. Market authorities should closely monitor large exposures and share information with other regulatory authorities, as required, so as to permit appropriate assessment of risk.

International standards recommend the use of Trigger Levels in the identification and control of large exposures. Trigger Levels are qualitative or quantitative criteria that are used to identify large exposures and it is recommended that market regulators establish Trigger Levels appropriate to their markets, and continuously monitor the size of positions on their markets. To perform this monitoring function market regulators should have access to information on the size and beneficial ownership of positions held by direct customers of market members upon which market regulators can take appropriate actions, such as requiring market intermediaries to reduce their exposure, or increasing margin requirements.

The market surveillance and compliance components in the ASE Trading System need to be enhanced in order to provide effective regulation of the Jordanian capital market. It is critical that surveillance and compliance functionality, appropriate to the Jordanian capital market, be incorporated into the ASE's Trading System. It is equally important that real-time reporting, or at a minimum end-of-day reporting, functionality be incorporated in the ASE Trading System to supply the JSC with the information necessary to implement proactive surveillance.

Recommendations

It is recommended that the JSC establish transaction surveillance and compliance requirements for the ASE Trading System. It is also recommended that the JSC establish reporting formats and time criteria governing the ASE's delivery of market surveillance and compliance information.

In order to assist the JSC in this significant undertaking it is recommended that the JSC be provided with the business and technical support necessary to complete the task.

Area for Improvement

Develop Clear, Concise and Well-Documented Procedures Governing Transparency of Trading

It is a primary, fundamental principle of international standards that market regulation should promote transparency of trading

Transparency of trading is generally defined as the degree to which information about trading, both pre-trade and post-trade information, is made publicly available on a real-time basis. Pre-trade information concerns the posting of firm bids and offers, in both quote and order-driven markets, as a means to enable investors to know, with some degree of certainty, whether and at what prices they can execute transactions. Post-trade information is related to the prices and the volume of all individual transactions actually concluded.

Ensuring timely access to market information is a key to the regulation of secondary market trading. Timely access to relevant information about secondary market trading allows investors to best monitor their own interests and reduces the risk of manipulative or other unfair trading practices.

Where a market permits some derogation from the objective of real time transparency, the conditions need to be clearly defined. International standards require that market regulators have access to complete information in order to assess the need for derogation and, if necessary, to prescribe alternatives.

Trading Transparency needs to be enhanced in Jordan's capital market. In order to deliver accurate and reliable market information to market participants and investors it is necessary for an SRO or market regulators to remove transactions that are illegal or questionable from the market data reporting stream. The inclusion of illegal or questionable transactions in the market data reporting stream encourages manipulative market practices, causes confusion in the marketplace and disadvantages investors.

The absence of transaction surveillance and compliance functionality in the ASE Trading System reduces the accuracy and reliability of the ASE's market data. Market participants and investors do not have assurance that the transactions executed and reported are in compliance with securities regulation.

The deficiencies in Transparency of Trading is symptomatic of other issues in the Jordanian capital market. The impact of existing market regulations are weakened due to a lack of surveillance and compliance.

Recommendations

In connection with other surveillance and compliance deficiencies it is recommended that the JSC establish procedures requiring the ASE to activate/incorporate transaction surveillance and compliance functionality in the ASE Trading System.

It is also recommended that the JSC establish reporting formats and time criteria requirements for the ASE Trading System to insure real-time, or at a minimum end-of-day, delivery of surveillance and compliance data.

Area for Improvement

Enhance Requirements for the Detection of Manipulative Trading Practices in the ASE Trading System.

As previously mentioned international standards require that the regulation of trading in the secondary market prohibit market manipulation, misleading conduct, insider trading and other fraudulent or deceptive conduct which may distort the price discovery system, distort prices and unfairly disadvantage investors

The elimination or mitigation of manipulative trading activity may be addressed by direct surveillance, inspection, reporting, product design requirements, position limits, settlement price rules or market halts complemented by vigorous enforcement of the law and trading rules

Market regulators must ensure that there are in place arrangements for the continuous monitoring of trading transactions. These arrangements should trigger inquiry whenever unusual and potentially improper trading occurs.

SECTION IV

INTERNATIONAL STANDARDS

&

AMMAN STOCK EXCHANGE ISSUES

SECTION IV: The Amman Stock Exchange – Areas for Improvement

The World Federation of Stock Exchanges (WFE) is the internationally recognized standard-setting body for securities exchanges and securities markets. The WFE was previously known as the Federation International de Bourses de Valores (FIBV).

The WFE is the global trade association for the exchange industry. The membership is comprised of 56 regulated exchanges from all regions of the world. Together, these exchanges account for over 97% of world stock market capitalization, and most of its exchange-traded futures, options, listed investment funds, and bonds

The World Federation of Exchange Market Structure Best Practices have been established to provide guidance as to the minimum level of organization, regulation and supervision a securities market needs to have in order to qualify as an internationally-compliant, organized market.

Exchanges should be aware of, and will have to be responsive to, the directives and concerns of relevant self-regulatory and government authorities which have jurisdiction over them. They must ensure to the full extent of their authority the compliance of market users with the requirements of the market, its applicable laws, rules and regulations.

A comparison of WFE requirements and regulatory documentation issued by and related to the Amman Stock Exchange (ASE) has identified areas for improvement at the ASE. Strengthening of the following areas will help the ASE comply with WFE Market Structure Best Practices.

Area for Improvement

Enhance Procedures Governing Market Participants' Standards and Requirements.

Internationally-compliant requirements for market participants should cover a participants':

- objective qualifications
- experience,
- structure
- capital adequacy rules
- disciplinary issues
- rights and obligations.

Foreign market participants should normally be allowed to participate on the market, adopting mutual recognition of the WFE member market participants. Traders should be authorized to act only at the end of a structured training process and after having passed a qualifying exam.

The ASE is compliant with most of the WFE Market Participant requirements. However, the ASE Capital Adequacy standards need strengthening.

Capital Adequacy standards foster confidence in capital markets and should be designed to allow a firm to absorb some losses, particularly in the event of large adverse market moves, and to achieve an environment in which a securities firm could wind down its business over a relatively short period without loss to its customers or the customers of other firms and without disrupting the orderly functioning of the capital markets. It is recommended that Capital Adequacy standards should be designed to provide supervisory authorities with time to intervene to accomplish the objective of orderly wind down.

A firm should ensure that it maintains adequate financial resources to meet its business commitments and to withstand the risks to which its business is subject. Risk may result from the activities of unlicensed and off balance sheet affiliates and exchange requirements should consider the need for information about the activities of these affiliates.

The ASE does not have comprehensive membership standards and requirements conducive to supporting Capital Adequacy Rules or the application of a Capital Adequacy Test to members. Additionally, the ASE does not have procedures for the ongoing monitoring of members' capital position or the demonstrable ability of members to consistently meet their financial obligations. The ASE does make reference to members' organizational requirements in Article 6 of the Code of Ethics of Amman

Stock Exchange Issued by virtue of the provisions of Article 26 (e) of the Securities Law No. 23 of 1997 which states:

Article 6:

A. Each member shall organize its work in a responsible manner, and shall provide sufficient human, technical and financial resources to conduct its business, in accordance with the operative regulations and directives, including these Directives. In particular, the member shall consider the following:

- 1) Setting up suitable bases, lists regulations and procedures for the execution and settlement of transactions, as well as for keeping records and reports.
- 2) Laying out suitable administrative and internal audit procedures.

B. Each member shall keep its financial records and papers in accordance with the accepted accounting standards.

The requirements in the ASE's Code of Ethics Article 6 lacks the specifics to meet international standards. The requirements to set up "suitable" bases, "list" regulations and procedures as well as laying out "suitable" administrative and internal procedures are not comprehensive enough to comply with WFE standards. In addition, the ASE does not utilize Trading Caps or Trading Limits to control individual member firms' obligations.

The absence of Capital Adequacy requirements, a Capital Adequacy Test and Trading Caps/Limits collectively place the operations of the ASE and the capital market at risk. The level of risk is illustrated by an analysis of ASE activity for the month of January 2003. The analysis reveals that in January 2003 56% of the value of ASE trades were executed by firms which collectively accounted for 4% of all member firms' capitalization.

Recommendations

It is strongly recommended that the ASE, in conjunction with the JSC and the Securities Depository Center (SDC):

- Institute Capital Adequacy requirements for member firms
- Create a Capital Adequacy Test for member firms
- Administer the Capital Adequacy Test to member firms
- Create procedures for the ongoing monitoring of members Capital Adequacy
- Establish sanctions for failure of member firms to meet Capital Adequacy requirements

Area for Improvement

Develop Clear, Concise and Well-Documented Procedures for Monitoring Ongoing Membership Compliance.

In order to be in reasonable compliance with international standards, a securities exchange or securities market is required to have in place an infrastructure for the ongoing supervision of its members' compliance with exchange requirements, including specifics of the frequency of monitoring, the scope of the exchange's authority and actions to be taken in cases of members' non-compliance.

The financial and trade reporting obligations of exchange members should have their formal basis in the exchange's supervisory infrastructure. The exchange's oversight should also encompass capital adequacy, position limits, collateral quantity and quality, members' internal compliance rules and market conduct and behavior.

In Article 4 (c) of the Internal By-Law of the Amman Stock Exchange Securities Market Issued by virtue of Articles (25) and (73) of the Securities Law No [23] of the year 1997 it is stated that the ASE will:

“Monitor market trading, and coordinate with the Commission the follow up of such transactions, in order to secure investor protection and non manipulation of trading in securities.”

The ASE By-Laws do not contain any details as to:

- How trading is monitored

- What criteria are used in the monitoring process
- What investor protections are offered by the monitoring process
- What constitutes manipulative trading behavior
- How exception trades are identified
- How exception trades are processed
- How violations are processed
- What ASE enforcement procedures are available to prosecute violators
- Delivery of monitoring data to the JSC
- JSC referral procedures

Recommendations

It is recommended that the ASE incorporate in its By-Laws, as an addendum, specific details as to the surveillance, compliance and enforcement of the exchange's transaction monitoring procedures.

It is also recommended that the ASE differentiate between quote transactions and trade execution transactions in providing specifics of the exchanges monitoring procedures.

Area for Improvement

Develop Clear, Concise and Well-Documented Procedures for Human Resources Departmental Operations.

In Section 2, Article 2e of its requirements the WFE states that the organizational structure of the exchange should be formal and allow for the correct management of financial market operations. Article 2e also states that the staff of the exchange needs to be fit and properly qualified for the job and a formalized human resources activity be established to attract and keep professional staff, avoiding the risk to operations from high turnover.

The ASE has not published a formalized human resources plan for the exchange. Although most exchanges depend upon electronic systems for a considerable part of its operations, the fundamental viability and credibility of an exchange depends on the professional caliber of its staff and as such it is important for an exchange to have in place a detailed plan to attract and retain the most qualified staff.

Recommendations

It is recommended that the ASE codify and publish a detailed Human Resources Plan so as to increase the credibility of the exchange's ability to operate a safe, secure and credible securities market.

Area for Improvement

Develop Clear, Concise and Well-Documented Procedures for Organizational Funding, International Standards Usage and Compliance Auditing.

WEF requirements state that the financial soundness of an exchange should be the result of a sound business plan. It should show a positive track record for at least three (3) years. The annual report of the exchange needs to be certified by an independent chartered accountant, in compliance with International Accounting Standards (IAS), if necessary in the Notes to the Accounts or as a separate statement in addition to compliance with any different local standards.

Although the ASE appears to be operating on a sound financial basis, the published rules, regulations and procedures supporting the exchange's business operations do not meet international standards.

The Internal By-Laws of the Amman Stock Exchange Securities Market Issued by virtue of Articles (25) and (73) of the Securities Law No [23] of the year 1997 state:

Article 7:

- A. In its meetings, the General Assembly shall have the competence to examine, discuss and take appropriate decisions on matters related to the Stock Exchange, inter alia:
1. Discussion of the Board of Directors' report on the Stock Exchange operations and its future plans.
 2. Hearing the auditor's report of the Stock Exchange on its balance sheet, final accounts and financial status.
 3. Discussion and approval of the annual budget, revenue and expenditure accounts and cash flows of the elapsed fiscal year.
 4. Election of the Stock Exchange's auditor.
 5. Approval of the estimated budget.

Items 1, 2, 3 and 4 do not contain sufficient detail to meet international standards. The information contained in these items does not adequately provide evidence of an orderly, safe, secure and well-managed securities market. It is important to note that the ASE does not publish its Business Procedures or its Operation Manual to provide supporting detail for its By-Laws' requirements.

There are references to the ASE's operational and financial procedures in the Internal By-Laws of the Amman Stock Exchange Securities Market Issued by virtue of Articles (25) and (73) of the Securities Law No [23] of the year 1997, below. However, the information does not meet international standards and does not provide adequate evidence that the exchange is operated in a safe, secure and orderly manner.

Article 17:

The Board of Directors shall have the following functions and competences:

- a. Managing and developing the Stock Exchange, including inter alia:
 7. Preparing the balance sheet and final accounts, and submitting them to the General Assembly.
 11. Borrowing for the purposes of securing the required money to manage the Stock Exchange.

Items 7 and 11 do not contain sufficient detail to meet international standards.

Article 25:

The Stock Exchange shall deposit its cash money at one or more banks in the Kingdom according to the principles set by the Board of Directors.

This Article does not contain sufficient detail to meet international standards and raise more questions that they answer. The Article does not specify how the principles are set by the Board of Directors or what guidelines are required for the safekeeping of the exchange's operating funds.

Article 26:

The Stock Exchange shall keep the following:

- a. Its own accounting books and records, in accordance with adopted accounting standards.
- b. The books and records needed for the conduct of its business, in accordance with its regulations and directives.

Article 26 does not contain a level of specificity to meet international standards. The Article does not mention the use of International Accounting Standards nor does it specify what records are required by the exchange's record keeping procedures.

Recommendations

It is recommended that the ASE codify and publish a comprehensive Business and Financial Operations Manual containing specific procedures utilized by the exchange in its business and financial operations.

Area for Improvement

Develop Clear, Concise and Well-Documented Procedures Governing Access to the Market.

The WFE's Requirement 3 states that the market should be designed to operate in a manner equitable to all who access it. Any differences in treatment among users, regardless of the means of access (electronic or other) must not be tolerated. Access to the market should not be arbitrarily granted, and no discrimination should be shown.

Procedures should be established such that market participants adhere to the competence, integrity, financial soundness and authority, and that adequate supervision be in place.

Exchange rules and regulations must stipulate:

- terms and conditions for equal access to the market, including those to do with financial integrity and business ethics ;
- the professionalism of intermediaries and their employees ;
- minimum capital requirements and solvency of intermediaries;
- compliance instruments that safeguard the standing and credit worthiness of intermediaries
- enforcement and disciplinary procedures, including the sanctions to be applied; and,
- management of conflicts of interest among and within market users.

A review of the ASE's published data did not disclose exchange rules, regulations, procedures and requirements related to information required by WEF Requirement 3. Although, it is assumed that the ASE does have requirements relating to Market Access and members' financial/professional qualifications the information is not codified and readily available.

Limited membership requirements information is published in Article 6 of the Internal By-Law of the Amman Stock Exchange Securities Market Issued by virtue of Articles (25) and (73) of the Securities Law No [23] of the year 1997, which states:

Article 6:

- a. Stock Exchange members shall consist of financial services companies licensed by the Commission to perform financial brokerage activities.
- b. The General Assembly of the Stock Exchange shall be composed of members who have paid their association fees and annual subscriptions; and each broker shall have one vote in the General Assembly meetings.

Although the ASE does publish a listing of its member firms along with each firm's capital, a review of the ASE's rules and regulations failed to produce any information relating to the exchange's procedures for establishing Capital Adequacy requirements or for members' ongoing compliance with established standards.

As mentioned in this report's section on the JSC, the lack of Capital Adequacy standards and effective procedures for the ongoing monitoring of compliance with established standards is an important concern in the Jordanian capital market. The safety, security and credibility of capital markets are highly dependent on the ability of market participants to meet their financial obligations.

Recommendations

It is recommended that the ASE, subject to JSC review and approval:

- immediately establish and administer a Capital Adequacy Test for all of its member firms
- temporarily suspend from market participation those firms that do not score satisfactorily on the Capital Adequacy Test
- provide suspended member firms with a reasonable time period to meet Capital Adequacy standards
- devise a practical plan to enforce member firms' ongoing compliance with Capital Adequacy standards
- publish and disseminate its Capital Adequacy rules and regulations.

Area for Improvement

Develop Clear, Concise and Well-Documented Procedures Governing Listing Requirements and Listing Companies' Comprehensive Disclosure and Monitoring Procedures.

Exchange listing requirements should ensure both investor protection and a fair, orderly and efficient market. Of particular importance in this context are:

- company formation;
- duties of directors and officers;
- regulation of takeover bids and other transactions intended to effect a change in control;
- laws governing the issuance of securities;
- disclosure of information to security holders to enable informed voting decisions;
- disclosure of material shareholdings;
- insolvency law.

International capital market standards require that investors should be provided with the information necessary to make informed investment decisions on an ongoing basis. The principle of full, timely and accurate disclosure of current and reliable information material to investment decisions is directly related to the objectives of investor protection and fair, efficient and transparent markets.

It is recommended that securities exchanges assist investors by requiring companies that list on an exchange to provide disclosure information that is clear, reasonably specific and timely.

Comparability and reliability of financial information are critical to informed decision making. The objective of general purpose financial statements is to provide information about the financial position, results of operations, cash flow and changes in the ownership equity of an enterprise that is useful to a wide range of users for decision making purposes. The statements should be characterized by comprehensibility, consistency, relevance, reliability and comparability. Financial statements should also show the results of the stewardship of management or the accountability of management for the resources entrusted to it. High quality accounting and auditing standards provide a framework for other disclosure obligations.

Since accounting and auditing standards are necessary safeguards of the reliability of financial information it is recommended that securities exchanges require the highest practical levels of compliance with these standards by companies who list on the exchange.

Accounting standards should ensure that fundamental information about a company's financial performance is available. There should be comprehensive and well-defined accounting principles that are of a high and internationally acceptable quality that provide accurate and relevant information on financial performance.

Listing requirements should ensure:

- The timeliness and relevance of information provided to an exchange's listing authority
- An appropriate mechanism for determining compliance with quality standards and assurance that where there is some dispute or uncertainty, standards can be the subject of authoritative and timely interpretation that is consistently applied.
- Independent verification of financial statements and compliance with accounting principles through professional external auditing.
- Company audits are conducted pursuant to well defined and internationally acceptable standards.
- Rules are designed to ensure the independence of the auditor.
- Sanctions for non-compliance with acceptable accounting and auditing standards.

Based on the overall requirements, above, international standards recommend that securities exchanges' listing requirements assure:

- that listed companies be of an adequate size and have sufficient shares in hands of the public to safeguard an orderly and fair market;
- timely, and the widest possible disclosure of business and financial information materially affecting listed companies;
- regular disclosure of financial information by listed companies;
- disclosure to investors of the nature, risk and investment potential inherent in the traded financial products.
- exchanges should work towards:
 - regulatory co-ordination among markets where financial products are jointly listed, in order that there be a synchronized disclosure of information; and,
 - the support of cross-border listing and trading.
- the listing procedures, time schedule for the processing of the dossier, costs for the company, minimum size of capitalization, and other requirements should be compiled in one rulebook, which is publicly available. In case listing responsibilities are shared with the supervisory agency, it should be clear where the ultimate decision in the listing process lies. Foreign issuing companies should be subject to the same rules as the domestic one.
- the procedure to gain listing should be sufficiently long to assure that all the requirements of the Exchange have been fully complied with, but not so long as to impair access to the capital market.

The ASE's Listing Requirements as stated in Directives for Listing Securities on Amman Stock Exchange/ Securities Market Issued by virtue of the provisions of Article 26 (a) of the Securities Law no. 23 of 1997, are not sufficiently comprehensive to comply with international standards. ASE's Listing Requirements lack procedures to monitor an issuer's compliance with initial requirements and do not provide for the enforcement of non-compliance.

Recommendations

It is recommended that the ASE benchmark its current Listing Requirements with international markets that are similar in size, customs and practices to the Jordanian capital market. Based on the differences identified via the benchmarking process it is recommended that the ASE augment its Listing Procedures, based on market practicality, to be in compliance with international standards.

Area for Improvement

Enhance Procedures Governing Regulator and Investor Audit Trails

The WFE's Requirement 6 states that the accountability of the Exchange to market users should be described, especially in any agreements that seek to modify the distribution of responsibilities among participants.

Transaction audit trails should be available to investors and regulators with only the information to regulators to include non-public information. Pre-trade information and post-trade information should be provided on a timely basis.

The Exchange should be able to demonstrate to the regulator that the processing, queuing, and display of prices and quotations within the market are equitable to all classes of participants.

The transparency of the market is a crucial element of fairness and must be assured at all times. Although markets may offer different degrees of transparency depending upon the balance struck between transparency and liquidity nevertheless, whatever the market structure, transactions must be reported immediately to the exchange, with details as to price and volume.

Exchanges should undertake:

- to promote well balanced transparency by publicly disclosing transaction data;
- to establish and maintain trading rules to protect investors, such as best execution rules, regulatory trading halts, etc.
- to create transparency with respect to the capacity in which the intermediaries operate.

The market should allow for cross-border trading. Duplicative regulation of the accessed market by the home country regulator and those in the jurisdiction in which the accessing party is located, i.e. the host country regulator, should be avoided. Foreign participants should have identical rights and obligations as domestic participants, provided their business attitude and financial soundness are comparable to those required in the market of the access provider.

The basic principle should be that national supervisory agencies must respect each other's efforts to assure that a securities market complies with generally accepted investor protection standards, such as disclosure, transparency and efficiency. This mutual recognition of each other's regulatory status and professional competence requires a good understanding of the mechanics and underlying approaches taken in that country.

ASE Trading Requirements and Disclosure Requirements as published in:

- Directives for Trading in Securities at Amman Stock Exchange / Securities Market Issued by virtue of the provisions of Article 26 (A) of the Securities Law No. 23 of 1997, and
- Directives on Disclosure Related to Amman Stock Exchange Issued by virtue of the provisions of Article 26 (c & d) of the Securities Law No. 23 of 1997

do not comply with international standards. In particular the ASE Directives for Trading in Securities is incomplete. The Directive consists of a table containing definitions related to securities trading in Amman. The Directive, in its entirety, is presented below.

**Directives for Trading in Securities at Amman Stock Exchange / Securities Market
Issued by virtue of the provisions of Article 26 (A) of the Securities Law No. 23 of
1997**

Article 1: These Directives shall be called the "Directives for Trading in Securities at Amman Stock Exchange / Securities Market for the year 2000". They shall enter into effect as of March 26th 2000.

Definitions

Article 2: The following words and expressions shall have the meanings assigned to them hereunder, and the words and expressions that are undefined in these Directives shall have the meanings assigned to them in the Securities Law, unless otherwise indicated by context.

The Law	:	The Securities Law.
The Commission	:	The Securities Commission.
The Stock Exchange	:	Amman Stock Exchange / Securities Market.
The Board of Directors	:	The Board of Directors of the Stock Exchange.
The Chief Executive Officer	:	The Chief Executive Officer of the Stock Exchange.
Relatives	:	Spouses and minor children.
The Trading System	:	The electronic trading system.
The Floor	:	A place allocated in the Stock Exchange building, or in any other location, which is approved for executing transactions of buying and selling securities listed in the Stock Exchange, in accordance with the provisions of the Law, and the regulations and directives issued by virtue thereof.
Dealing in Securities	:	Transactions of buying and selling securities, and confirming said transactions, either manually or electronically, in the Stock Exchange records.
Company	:	A public shareholding company whose securities are listed in the Stock Exchange.
Broker	:	A juristic person licensed by the Commission to perform financial brokerage activities.
Certified Broker	:	A natural person licensed by the Commission to perform financial brokerage activities.
Authorization to Buy/ Sell	:	A request presented by the client to the broker, requesting and authorizing it to execute a selling/buying transaction of a security, according to specific conditions laid down by the client.
Buying Order	:	An order sent by a broker to the trading system to buy a certain security for the benefit of its client or for its portfolio.
Selling Order	:	An order sent by a broker to the trading system to sell a specific security for the benefit of its client or for its portfolio.
Hidden quantity	:	The quantity mentioned in the order sent to the trading system, which the broker does not wish to reveal on the Market by Order

Book.

Ordinary Order	:	An order to buy or sell a specific security, which the broker can offer or demand through the trading system.
Block Trades	:	Trading between two brokers or through one broker (in the case of cross execution) for the purpose of buying and selling any security, in one block, whereby the value shall not be less than the minimum set by the Board of Directors.
Cross Trade	:	An order sent by a broker to the trading system containing an order to buy and an order to sell a specific security, placed with one broker, for the same quantity, and for the same price, according to those conditions laid out in Articles 65-67 of these Directives.
Indicative Equilibrium Price (IEP)	:	The price of equilibrium between offered and demanded quantities, which is calculated by the system after entering, altering or canceling any order on a security, as per the rules stated in Article 34 of these Directives.
Closing Price	:	The price of the last trading transaction in a trading session, executed on a specific security.
Opening Price	:	The price of the first trading transaction executed on a specific security.
Market Price	:	The order price sent to buy or sell a security at the best prices available at the other end, which is the best-offered price in case of sending a buying order, or the best-demanded price in case of sending a selling order.
Open Price	:	The price of an order sent in the pre opening phase to buy or to sell a security at the opening price (IEP).
Fixing Group	:	A group of securities traded at a limited price during the trading session, representing the last IEP upon opening.
Multi Fixing Group	:	A group of securities traded at multiple limited prices, each representing the last IEP of each opening phase during the trading session
Continuous Group	:	A group of securities traded during the trading session at various prices throughout the various phases of the session.

Recommendations

It is recommended that the ASE benchmark its current Trading Requirements and Disclosure Requirements against models operable in markets comparable to Jordan. Once the benchmarking process has been completed it is recommended that the ASE create ASE Trading Requirements and ASE Disclosure Requirements for the review and approval of the JSC. Upon approval by the JSC it is recommended that the ASE implement both sets of requirements.

Area for Improvement

Develop Procedures Governing Securities Borrowing and Lending Contracts.

International standards recommend practical and effective a Securities Lending and Borrowing Program as a necessary operational component of a capital market's expediting the settlement of securities transactions.

In its Recommendation 6 the WFE states that;
Exchanges will:

- be instrumental in the development of national Central Securities Depositories, immobilization, dematerialization of securities and lending and borrowing contracts and arrangements;

IOSCO and the Group of 10 Central Banks in their joint report also recommend the implementation of a Securities Lending and Borrowing Program when, in Recommendation 5 they state:

*“Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.”*²⁰

Mature and liquid securities lending markets, including markets for repurchase agreements and other economically equivalent transactions, generally improve the functioning of securities markets by allowing sellers ready access to securities needed to settle transactions where those securities are not held in inventory, by offering an efficient means of financing securities portfolios, and by supporting participants' trading strategies. The existence of liquid markets for securities lending reduces the risks of failed settlements because market participants with an obligation to deliver securities that they have failed to receive and do not hold in inventory can borrow these securities and complete delivery. Securities lending markets also enable market participants to cover transactions that have already failed, thereby remedying the failure sooner. In cross-border transactions, particularly back-to-back transactions, it is often more efficient and cost-effective for a market participant to borrow a security for the delivery than to deal with the risk and costs associated with a settlement failure.

Liquid securities lending markets are therefore to be encouraged, subject to appropriate limits on their use for purposes prohibited by regulation or law. For example, borrowing to support short sales is illegal in some circumstances in some markets. Even in

jurisdictions that restrict securities lending because of other public policy concerns, international standards recommend that regulatory authorities consider permitting lending to reduce settlement failures.

The scope for improvement in the processing of cross-border borrowing and lending transactions is particularly significant. Some Central Securities Depositories (CSDs) seek to overcome these impediments by providing centralized lending facilities while others offer services intended to support the bilateral lending market. The needs of individual markets will differ, and market participants and CSDs should evaluate the usefulness of the different types of facilities.

Recommendations

The Jordanian capital market does not operate Securities Lending and Borrowing Programs. It is recommended that the ASE commission the SDC to create a practical and effective Securities Lending and Borrowing Program for the Jordanian capital market.

It is also recommended that upon completion of the SDC's Securities Lending and Borrowing Program, the ASE and the SDC jointly submit the plan to the JSC for review and approval. Upon approval of the JSC, the Securities Lending and Borrowing Program should be implemented.

Area for Improvement

Enhance Objective, On-Going Risk Management Assessment Procedures for Exchange Trading Systems

In its Requirement 7 the WFE obliges securities exchanges' and securities markets' IT systems to maintain adequate capacity to meet the needs of market users. Back-up systems and contingency procedures are required to be followed in the event of an operational failure and are required to be maintained on a current, ready basis. ***Before implementation and on a periodic basis thereafter, the market and system interfaces should be subject to an objective risk assessment to identify vulnerabilities, which may exist in the system design, development, or implementation. These would include the risk of unauthorized access, internal failures, human errors, attacks and natural catastrophes.***

To minimize operational risk, system operators should identify sources of operational risk, whether arising from the arrangements of the operator itself or from those of its participants, and establish clear policies and procedures to address those risks. There should be adequate management controls and sufficient and sufficiently well qualified personnel to ensure that procedures are implemented correctly. Systems should be reviewed periodically and after each material modifications to the system. Information systems should be subject to periodic independent audits.

In reviewing the ASE's published rules, regulations and procedure, no information related to system audits or the maintenance of system integrity was found. Additionally,

the ASE's published rules, regulations and procedures do not contain any information governing basic Risk Management methodologies. Basic Risk Management methodologies can be defined to include, at a minimum:

- Position Limits or Trading Caps
- Trading System Compliance and Enforcement of Margin Requirements
- Minimum Capital Requirements
- Compliance and Enforcement of Minimum Capital Requirements
- Market-to-Market Valuation Capabilities

Recommendations

It is recommended that the ASE codify and publish its Risk Management requirements and procedures for the ASE's Trading Systems. It is also recommended that a plan for ongoing, independent systemic audits be implemented by the ASE to assure that material changes and enhancements to the Trading Systems will be verified as a result of unit testing and regression testing.

It is also strongly recommended that the ASE implement, a formal Risk Management Program to include, at a minimum:

- Position Limits or Trading Caps
- Trading System Compliance and Enforcement of Margin Requirements
- Minimum Capital Requirements
- Compliance and Enforcement of Minimum Capital Requirements
- Market-to-Market Valuation Capabilities

Area for Improvement

Enhance Procedures Governing Market Surveillance and Enforcement Policies.

International standards require that an Exchange must assure that mechanisms are in place to ensure that the information necessary to conduct adequate surveillance of the market for supervisory and enforcement purposes is available on a timely basis.

The securities regulatory agency must be established with broad inspection and enforcement authority, and adequate oversight over the players in the market. Its enforcement of applicable regulations must be transparent. In case of a division of regulatory responsibilities between the Exchange and the regulator, the responsibilities and powers of each party should be formalized and cover the entire area to be supervised.

Markets, which have a separate banking supervisor, should have a clear separation of responsibilities, in the event that banks may be actors on the securities markets. Regulatory co-ordination between the regulators should be fostered.

An Exchange is required to report to the securities regulator when it becomes aware that reasonable grounds exist to suspect that a market user may have violated the jurisdiction's laws, or its internal rules and regulations.

Records made or received by an Exchange stemming from the operation of its trading system, relating to financial statements, and data regarding indications of market interest, quotations, orders, and trades in the system itself should all be preserved for a reasonable period of time, in most instances meaning many years. These should be furnished promptly upon request by the relevant regulator.

The ASE deficiencies in Market Surveillance and Enforcement are related to the absence of practical methodologies to support established rules and regulations. The ASE lacks written procedures for the daily surveillance and compliance of member firms' transactions and the demonstrable capacity to produce comprehensive information that would support proactive transaction review, potential problem identification and real-time reporting to market regulators.

Recommendations

It is recommended that the ASE enhance its Trading System to support:

- Transaction Criteria
- Transaction Compliance Review
- Member Firm Transaction Profiles
- Identification of Non-Compliant Transaction
- Regulatory Referral of Non-Compliant Transactions

It is also recommended that the ASE establish a formal Records Retention Program to cover the integrity and availability of Trading System Data.

Area for Improvement

Enhance Procedures Governing Market Investor Protection.

The WFE's Requirement 12 mandate that specific rules and regulations, on disclosure and transparency, that serve to protect investors should be in place. The rules and regulations should include guarantees such as compensation funds, insurance policies or their equivalent. If an Exchange or a related organization holds or safeguards funds intended to guarantee the clearing of trades, or to compensate investors in the event of the insolvency of a member of the market, procedures and controls should be implemented to assure the availability of those funds, on stand-by basis, as a lender of last resort to the market.

In general the ASE provisions governing Investor Protection are in compliance with generally accepted international standards. However, the limitations on the maximum pay-out amounts from the exchange's Financial Brokers' Guarantee Fund (FBGF) and the unstated conditionality of the pay-out procedures are areas for improvement.

Article 9 of the Directives for Amman Stock Exchange Financial Brokers' Guarantee Fund issued by virtue of the provisions of Article 26/B of the Securities Law No. 23 of the year 1997, states:

Article 9:

A. The maximum amount paid by the FBGF on behalf of a Member shall not exceed one hundred and fifty thousand Jordan Dinars for trading transactions; subject to the fact that the FBGF liability for covering any deficit shall be determined proportionately to the funds deposited with it.

Based on the monetary value of the ASE's daily turnover, it would appear that the minimum pay-out established in Article 9 does not constitute an adequate level of investor protection. Additionally, the ASE's Directive does provide specifics governing multiple pay-outs to an individual exchange member covering numerous clients of the individual exchange member. Additionally, the ASE Directive does not contain procedures relating to application of FBGF funds to individual exchange member firms over a period of time, i.e. is the JD 150,00 limit a "one-time" maximum per trading session or may pay-outs be made as required over multiple trading sessions?

In general the principle of the FBGF is sound and is in compliance with international standards but the legal, financial and operational details of FBGF are limited in scope.

Recommendations

It is recommended that the ASE benchmark its FBGF procedures against similar funds maintained by exchanges in markets that are comparable to Jordan's. Based on the results of the benchmarking process, it is recommended that the ASE restructure its FBGF so as to be in compliance with international standards.

Area for Improvement

Enhance Procedures Governing IOSCO's International Conduct of Business Compliance.

One of the most important parameters for regulated markets is the level of investor confidence achieved through both the national legal environment and the market regulatory infrastructure. An important element of investor confidence is the fair treatment of the customer. The WFE's Requirement 12 elaborates the IOSCO International Conduct of Business Principles (the IOSCO Principles)²¹ and puts them in the context of markets, their participants and customers. It aims at offering a benchmark of best practice against which members which have existing codes or formal regulations could test their practice and perhaps revise their codes.

Overall the ASE's procedures governing conduct of business is in compliance. The deficiencies that do exist are related to weaknesses in details for the operational support

of published documentation. Simply stated, the ASE's published procedures are adequate but details related to the practical implementation of such procedures need strengthening

Recommendations

It is recommended that the ASE benchmark its current Conduct of Business Code against the IOSCO International Conduct of Business Principles. Based on the results of the benchmarking process it is recommended that the ASE augment its Conduct of Business Code so as to be in compliance with IOSCO.

Area for Improvement

Enhance Procedures Governing Trading System Surveillance and Compliance.

The WFE's Requirement 13 mandates that an exchange's trading methodology be transparent, in accordance with principles of fairness and equality and principles for the protection of investors. Principles such as "time/price" priority, equitability and integrity must be adhered to.

The trading activity should be checked constantly by audit trails, stock watch systems, etc. on a real-time basis if possible. Investors should have access to public data, in order to verify that their orders were executed at a fair price.

In its recommendation reports IOSCO has also stressed the importance of market surveillance and compliance. In its Supervisory Framework for Markets Report²² IOSCO states:

(4) Monitoring of Markets through Reporting, Inspection and Auditing

An effective market oversight program must have a mechanism for monitoring compliance with the securities laws, regulations and market authority's rules, operational competence requirements, and market standards. Monitoring includes collecting and analyzing information.

Essential elements of monitoring compliance include: (1) monitoring the day-to-day trading activity in the markets through a market surveillance program; (2) monitoring the conduct of market intermediaries through examinations of business operations; and (3) collecting and annualizing information gathered from these activities.

The ASE currently does not have an effective Market Watch System to perform surveillance and compliance of market transactions. The lack of an effective Market Watch System inhibits a proactive approach to market surveillance and compliance as well as the ability to transmit market surveillance information to the JSC.

Recommendations

It is recommended that the ASE implement a Market Watch System that is appropriate for the Jordanian securities market. It is also recommended that the ASE investigate Market Watch Systems, or their equivalents, in securities markets similar to Jordan. Based on the results of the investigative process, the ASE should incorporate a Stock Watch System that is financially and operationally suitable to the ASE's capacity.

SECTION V

INTERNATIONAL STANDARDS

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SECURITIES DEPOSITORY CENTER ISSUES

SECTION V: The Securities Depository Center – Areas for Improvement

The International Organization of Securities Commissions (IOSCO) and the Central Bank of the Group of Ten Countries' Committee on Payment and Settlement Systems (CPSS) are the globally recognized standard-setting bodies for Central Securities Depositories (CSDs). Standards for CSDs are contained in Recommendations for Securities Settlement Systems²³ issued jointly by IOSCO and CPSS

A comparison of IOSCO and CPSS requirements and documentation issued by and related to the Securities Depository Center (SDC) has identified areas for risk management improvement at the SDC. These areas are summarized below.

Area for Improvement

Enhance Procedures Governing Securities Borrowing and Lending Contracts.

Recommendation 5 on Securities Lending in the IOSCO and CPSS report states:

Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.

Mature and liquid securities lending markets generally improve the functioning of securities markets by allowing sellers ready access to securities needed to settle transactions where those securities are not held in inventory, by offering an efficient means of financing securities portfolios, and by supporting participants' trading strategies.

The existence of liquid markets for securities lending reduces the risks of failed settlements because market participants with an obligation to deliver securities that they have failed to receive and do not hold in inventory can borrow these securities and complete delivery. Securities lending markets also enable market participants to cover transactions that have already failed, thereby curing the failure sooner. In cross-border transactions, particularly back-to-back transactions, it is often more efficient and cost-effective for a market participant to borrow a security for the delivery than to deal with the risk and costs associated with a settlement failure.

It is recommended that liquid securities lending markets be developed, subject to appropriate limits on their use for purposes prohibited by regulation or law such as jurisdictions where borrowing to support short sales is illegal. Even in jurisdictions that restrict securities lending because of other public policy concerns, it is recommended that authorities consider permitting securities lending to reduce settlement failures.

Impediments to the development and functioning of securities lending markets should, as far as possible, be removed.

Implementation of a securities lending program may also pose impediments arising from tax or accounting policies, from legal restrictions on lending, from an inadequate legal underpinning for securities lending or from ambiguities about the treatment of such transactions in a bankruptcy.

One of the most significant barriers to development of a securities lending program may be related to taxation of securities lending transactions. A tax authority's granting of tax neutrality to the underlying transaction and the elimination of certain transaction taxes have served to increase activity in several jurisdictions.

Accounting standards also have an influence on the securities lending market, particularly with respect to whether, and under what conditions, collateral must be reflected on the balance sheet. Authorities in some jurisdictions restrict the types or amounts of securities that may be loaned, the types of counterparties that may lend securities, or the permissible types of collateral.

Uncertainty about the legal status of transactions, such as their treatment in insolvency situations, also inhibits development of a securities lending market. The legal and regulatory structure must be clear so that all parties involved understand their rights and obligations.

Although securities lending is a useful tool, it can present considerable risk to both the borrower and the lender. The securities loaned or the collateral received may not be returned when needed, because of counterparty default, operational failure or legal challenge. The securities involved would then need to be acquired in the open market, perhaps at a cost. Counterparties to securities loans must employ appropriate risk management policies, including conducting credit evaluations, collateralizing exposures, marking-to-market exposures and collateral daily, and employing master legal agreements.

Currently, Securities Lending and Borrowing is not available in Jordan.

Recommendations

It is recommended that the SDC in conjunction with the ASE develop a plan for the operation of an internationally-compliant Securities Lending and Borrowing Program. Subsequent to the development of a viable plan it is recommended that the SDC and the ASE submit the plan to the JSC for review and approval. Upon approval by the JSC, it is recommended that the SDC implement the program.

Area for Improvement

Develop Procedural Documentation Governing Operations of a Settlement Guarantee Fund.

Recommendation 9 on CSD Risk Controls to Address Participants' Failures to Settle in the IOSCO and CPSS report states:

CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.

In cases where participants are unable to settle their obligations such failures to settle can impose credit losses and liquidity pressures on the CSD or on the CSD's participants. If the losses and liquidity pressures exceed the financial resources of those expected to bear them, further failures to settle would result and the system as a whole may fail to achieve timely settlement. If so, both the securities markets the CSD serves and payment systems may be disrupted.

International standards recommend that CSDs impose risk controls to limit the potential for failures to settle in order to avoid systemic disruption. At a minimum, the controls should enable the settlement system to complete settlement following a failure to settle by the participant with the single largest payment obligation. Such failures may not occur in isolation and systems should, wherever possible, be able to survive additional failures. In determining the precise level of comfort to target, each CSD will need to balance carefully the additional costs to participants of greater certainty of settlement against the probability and potential impact of multiple settlement failures. To achieve the chosen comfort level a CSD can use a variety of risk controls. The appropriate choice of controls depends on several factors, including the systemic importance of the settlement system, the volume and value of settlements, and the effect of the controls on the efficiency of the system.

Many international markets have achieved an acceptable comfort level by implementing Settlement Guarantee Funds (SGF). Although the structure and composition of SGFs vary from market to market the fundamental risk management principles are essentially the same. SGFs hold moneys contributed by CSD participants based on a daily average of each participant's historical settlement obligations. In such a *pro rata* contributory scheme CSD participants with large average daily settlement obligations contribute more than those CSD participants with lower average daily settlement obligations.

In the event that a CSD participant has sold securities but on Trade Date plus 1 day (T+1) does not have the securities sold in the participant's CSD position, the CSD may debit the SGF in an amount required to purchase the securities required in the spot market.

Subsequent to the CSD's purchase the selling participant's position is covered at the CSD and settlement may proceed.

In the event that a CSD participant who has purchased securities but prior to the payment deadline on Trade Date plus 3 days (T+3) can not transfer the funds required to the CSD, the CSD may debit the SGF in an amount equal to the purchase funds. Subsequent to debiting the SGF the CSD will credit the moneys to the CSD account of the transaction's seller thus allowing settlement to proceed.

In both of the cases cited above, the CSD utilizes the SGF to cover either the potential securities fail or the potential cash fail. In covering potential securities and cash fails a CSD insures that there will not be any disruption in the continuity of the market's settlement process.

At a meeting of the JSC, ASE, SDC and AMIR Program representatives held in May of 2002 it was agreed in principle to establish a SGF under the operational management of the SDC.

Recommendations

It is recommended that the SDC submit its SGF plan to the JSC for review and approval. It is also recommended that the JSC review and approve the SDC's plan for a SGF within four weeks from submission.

Area for Improvement

Develop Comprehensive Operations Manual.

Recommendation 11 on CSD Operational Reliability in the IOSCO and CPSS report states:

Sources of Operational Risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and backup facilities should be established to allow for timely recovery of operations and completion of the settlement process.

Operational Risk is the risk that deficiencies in information systems or internal controls, human errors or management failures will result in unexpected losses. As clearing and settlement systems become increasingly dependent on information systems, the reliability of these systems is a key element in operational risk. The importance of operational risk lies in its capacity to impede the effectiveness of measures adopted to address other risks in the settlement process and to cause participants to incur unforeseen losses, which, if sizeable, could have systemic risk implications.

Operational Risk can arise from inadequate control of systems and business processes; from inadequate management such as a lack of expertise, poor supervision or training and inadequate resources. Operational Risk may also result from inadequate identification or understanding of risks and the controls and procedures needed to limit and manage them and from inadequate attention being paid to ensuring that procedures are understood and complied with.

Potential operational failures include errors or delays in message handling, transaction processing, system deficiencies or interruption, fraudulent activities by staff and unauthorized disclosure of confidential information. Errors or delays in transaction processing may result from miscommunication, incomplete or inaccurate information or documentation, failure to follow instructions or errors in transmitting information. While automation has allowed improvements in the speed and efficiency of the clearing and settlement process, it brings its own risks of system deficiencies, interruptions and computer crime. These may arise from factors such as inadequate security, capacity or resilience of backup systems.

To minimize operational risk, CSDs should identify sources of operational risk, whether arising from the arrangements of the CSD itself or from those of its participants, and establish clear policies and procedures to address those risks.

There should be adequate management controls and sufficiently well qualified personnel to ensure that procedures are implemented accordingly. Risks, operational policies and procedures, and systems should be reviewed periodically especially after material modifications to the settlement system. Information systems should be subject to periodic independent audit, and external audits should be seriously considered.

Based on a benchmarking of the SDC's rules, regulations and operational procedures against generally accepted international standards, the SDC is in reasonable compliance with international standards. However, the SDC has not codified its rules, regulations and operational procedures into a comprehensive Operations Manual.

Recommendations

It is recommended that the SDC codify its rules, regulations and operational procedures in a comprehensive Operations Manual. It is also recommended that the SDC establish procedures for the ongoing maintenance of its Operations Manual.

Endnotes

¹ *Objectives and Principles of Securities Regulation, International Organization of Securities Commissions, February 2002 (Updated from 1998).*

² *World Federation of Exchanges, Publications, Market Information, World Market Federation Principles, <http://www.world-exchanges.org>*

³ *Recommendations for Securities Settlement Systems, Report of the CPSS-IOSCO Joint Task Force on Securities Settlement Systems, Bank for International Settlements, Basel, Switzerland, January 2001*

⁴ *Recommendations for Securities Settlement Systems, Report of the CPSS-IOSCO Joint Task Force on Securities Settlement Systems, Bank for International Settlements, Basel, Switzerland, January 2001*

⁵ *World Federation of Exchanges Annual Report 2001, Pages 14,64, World Federation of Stock Exchanges, Paris (March, 2002)*

⁶ *Objectives and Principles of Securities Regulation, International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

⁷ *Capital Adequacy for Securities Firms, Technical Committee of International Organization of Securities Commissions (IOSCO), Brussels, Belgium, 1989*

⁸ *Objectives and Principles of Securities Regulation, Part III, Section 12.1 Principles for Market Intermediaries, International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

⁹ *Objectives and Principles of Securities Regulation, Part III, Section 13 Principles for the Secondary Market, International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

¹⁰ *Objectives and Principles of Securities Regulation, Part III, Section 13 Principles for the Secondary Market, Paragraph 13.3 Securities Exchanges and Trading Systems, International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

¹¹ *Recommendations for Securities Settlement Systems, Exhibit 1, CPSS-IOSCO Technical Committee Recommendations for Securities Settlement Systems, Settlement Risk,7,Bank for International Settlements, Basel, Switzerland (November 2001)*

¹² *Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries, Bank for International Settlements (BIS), Basel, Switzerland, November 1990.*

¹³ *Recommendations for Securities Settlement Systems, Exhibit 1, CPSS-IOSCO Technical Committee Recommendations for Securities Settlement Systems, Settlement Risk 9, Bank for International Settlements, Basel, Switzerland (November 2001)*

¹⁴ *Objectives and Principles of Securities Regulation, Part III, Section 13 Principles for the Secondary Market, Section 13.10 Verification of Trades in Clearing and Settlement Systems International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

¹⁵ *Objectives and Principles of Securities Regulation, Part II, The Regulator, Section 6.5 Clear and Consistent Regulatory Processes, International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

¹⁶ *Objectives and Principles of Securities Regulation, Part II, The Regulator, Section 7 Self-Regulation, 7.2 The Role of SROs, International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

¹⁷ *Objectives and Principles of Securities Regulation, Part II, The Regulator, Section 8 Enforcement of Securities Regulation, 8.1 Inspection and Compliance Programs, International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

¹⁸ *Objectives and Principles of Securities Regulation, Part III, Issuers, Market Intermediaries and Secondary Markets, Section 12 Market Intermediaries, 12.1 Principles for Market Intermediaries, International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

¹⁹ *Objectives and Principles of Securities Regulation, Part III, Issuers, Market Intermediaries and Secondary Markets, Section 12 Market Intermediaries, 12.5 The Conduct of Business Rules and Other Prudent Requirements, International Organization of Securities Commissions (IOSCO), Madrid, Spain, February 2002*

²⁰ *Recommendations for Securities Settlement Systems, Committee on Payment and Settlement Systems (CPSS) & Technical Committee of the International Organization of Securities Commissions (IOSCO), Section 3 Recommendations, Recommendation 5, Bank for International Settlements, Basel, Switzerland, November 2001.*

²¹ *International Conduct of Business Principles, The Technical Committee of the International Organization of Securities Commissions (IOSCO), July 1990*

²² *Supervisory Framework for Markets, Report by the Technical Committee of the International Organization of Securities Commissions, May 1999*

²³ *Recommendations for Securities Settlement Systems, Technical Committee of the International Organization of Securities Commissions (IOSCO) & Committee on Payment and Settlement Systems (CPSS) of the Central Banks of the Group of Ten Countries (G-10), Madrid, November 2001*