

**DRAFT**



**COMCEC**

Standing Committee  
For Economic and Commercial Cooperation  
of the Organization of Islamic Cooperation

CAPITAL MARKET  
REGULATORS FORUM  
COMCEC

# DEVELOPMENT OF CAPITAL MARKET INFRASTRUCTURES

**Report of the Market Development Task Force of the  
COMCEC Capital Market Regulators Forum**

**September 2013**

**Chair of Market  
Development Task  
Force**



**Vice-Chair of Market  
Development Task  
Force**



**Secretariat of the  
COMCEC Capital  
Market Regulators Forum**



<b>Table of Contents:</b>		<b>Page Number</b>
	List of Abbreviations	iii
<b>1</b>	<b>Introduction and Background</b>	<b>1</b>
	1.1 Purpose of the Report	1
	1.2 Introduction	2
	1.3 Assessment Methodology	2
	1.4 Surveyed Jurisdictions	3
<b>2</b>	<b>Preconditions for Development of Capital Markets</b>	<b>4</b>
	2.1 Macro-economic Conditions	4
	2.2 Institutional and Legal environment	5
	2.3 Institutional and Retail Investors	7
<b>3</b>	<b>Types of Capital Markets Infrastructure Institutions</b>	<b>9</b>
	3.1 Exchanges	9
	3.2 Central Securities Depositories	10
	3.3 Clearing and Settlement Institutions	11
	3.4 Central Counterparties	11
	3.5 Trade Repositories	12
<b>4</b>	<b>Capital market infrastructure in place in OIC member countries</b>	<b>13</b>
	4.1 Stage of Capital Market Development	13
	4.2 Structure of the Market Infrastructure in place	13
	4.3 Role and Mandate of Institutions	14
	4.4 Ownership Structures of Infrastructure Institutions	15
	4.5 Cooperation between Institutions	17
<b>5</b>	<b>Regulation and Oversight of Capital Market Infrastructure Institutions</b>	<b>19</b>
	5.1 Legal and Regulatory Frameworks	19
	5.2 Supervision of Infrastructure Institutions	21
	5.3 Corporate Governance and Accounting Requirements	21
	5.4 Investor Protection Measures	22
	5.5 Risk Management	23
	5.5.1 Credit Risk	23
	5.5.2 Liquidity Risk	25
	5.5.3 General Business and Operational Risk	25
<b>6</b>	<b>Issues and Challenges for Infrastructure Development</b>	<b>27</b>
	6.1 Gaps in capacity and resources	27
	6.2 Deficiencies in the Economic, Legal and Institutional Framework	28
	6.3 Market Participants	29
	6.4 Access to Information	29
	6.5 Trading Platforms and Mechanisms	30
<b>7</b>	<b>Conclusions and Recommendations</b>	<b>31</b>
	Summary of Recommendations	44
	References	45
	Annexure – A	47
	Annexure – B	50

List of Abbreviations:

<b>CCP</b>	<b>Central Counterparty</b>
<b>CMA</b>	<b>Capital Markets Authority Kuwait</b>
<b>CMBT</b>	<b>Capital Markets Board of Turkey</b>
<b>CMDA</b>	<b>Capital Market Development Authority Maldives</b>
<b>CMI</b>	<b>Capital Market Infrastructure</b>
<b>COMCEC</b>	<b>The Standing Committee for Economic and Commercial Cooperation of the Organization of the Islamic Cooperation</b>
<b>COMCEC CMR</b>	<b>COMCEC Capital Markets Regulators Forum</b>
<b>FSB</b>	<b>Financial Stability Board</b>
<b>IOSCO</b>	<b>International Organization of Securities Commissions</b>
<b>MII</b>	<b>Market Infrastructure Institutions</b>
<b>NCC</b>	<b>National Council of Credit/Central Bank Cameroon</b>
<b>OIC</b>	<b>Organization of Islamic Cooperation</b>
<b>OTC</b>	<b>Over the Counter</b>
<b>PCMA</b>	<b>Palestine Capital Market Authority</b>
<b>SCA</b>	<b>Securities &amp; Commodities Authority UAE</b>
<b>SCM</b>	<b>Securities Commission Malaysia</b>
<b>SECP</b>	<b>Securities and Exchange Commission Pakistan</b>
<b>SEO</b>	<b>Securities and Exchanges Organization Iran</b>
<b>TR</b>	<b>Trade Repository</b>

## Chapter 1: Introduction and Background

### 1.1 Purpose of the Report

In 1981, the Organization of the Islamic Cooperation (OIC) established the Standing Committee for Economic and Commercial Cooperation (COMCEC) for implementation of resolutions in the economic and trade fields; strengthening cooperation among the Member States, and preparation of programs and proposals capable of improving capacities in these areas.

In September 2011, the COMCEC Capital Market Regulators (CMR) Forum was established as a cooperation platform for COMCEC capital market regulatory bodies. Its main focus is to support market development and reinforce the capabilities of capital markets regulatory bodies of OIC countries. The CMR Forum in its first meeting in September 2012 created four task forces to work on: Capacity Building, Market Development, Financial Literacy, and Islamic Finance respectively.

The **Market Development Task Force** aims to reinforce COMCEC CMR Forum members' to support effective operations of the financial markets for the best interests of the investors and market participants. The Task Force worked in leadership of the Chair, *Securities and Exchange Commission of Pakistan* in co-operation with Co-Chair, *Securities & Exchanges Organisation of Iran* and the *CMR Forum Secretariat, Capital Markets Board of Turke*.

The Task Force recognizes the heterogeneous nature of capital markets conditions in OIC local capital markets and considers that an effective legal system as well as a robust domestic market infrastructure that conform to international standards and best practices, would facilitate integration of OIC capital markets into the world financial system. Within this context, Development of Capital Market Infrastructures was taken up as the first mandate of the task force.

The objective for the mandate is to provide guidance to OIC capital market regulators, for the development of an appropriate capital market infrastructure in their respective jurisdictions. Focus of the mandate is to help regulators to;

- i.) ensure that the design and operations of capital market infrastructure in the member jurisdictions are sound, safe, and efficient,
- ii.) promote efficiency and competition in the capital markets that would reduce the transaction costs, and
- iii.) ensure market fairness, i.e., all investors have a reasonable opportunity to trade at the best price available for their transaction size.

The guidelines intend to create an integrated securities market infrastructure for OIC members. The ultimate goal is that investors within the OIC should face similar costs and conditions whether they are settling a domestic trade transaction or an OIC wide trade transaction.

Keeping in view the objectives mentioned above, the emphasis of the report is primarily on the following:

- (1) Assist the regulators to develop an understanding of prevailing practices and regulations concerning capital market infrastructure within the OIC member jurisdictions;
- (2) Identify useful regulatory elements that could be adopted by members, that may intend to improve their capital market's regulatory frameworks and infrastructure; and
- (3) Develop recommendations or best practices for appropriate infrastructure development leading to enhanced investor protection and better functioning of the capital markets as a whole.

The focus of the report is to develop a harmonized regulatory framework for COMCEC member countries which will facilitate regional financial integration as well as broadening and deepening of capital markets within the OIC region.

### **1.2 Introduction**

Capital market infrastructure refers to institutions and mechanisms that facilitate the recording, clearing, and settlement of securities transactions and support the trading function by disseminating prices. Capital market infrastructures play a critical role in fostering financial stability and strengthening the markets by bringing buyers and sellers together, ensuring that financial obligations are efficiently discharged and providing a sound regulatory environment within which all participants operate. However, if not properly managed, they can pose significant risks to the financial system and can be a potential source of contagion, particularly in periods of market stress.<sup>1</sup>

The quality of the capital market infrastructure plays a crucial role in the ability of any market to attract investors; both retail and institutional. If risks or costs are high, investors will be deterred and the growth of the market will hamper. The presence of infrastructure institutions such as a Central Counter Party (CCP) reduces risks for the investors. Similarly, a Central Securities Depository (CSD) by offering delivery and safekeeping of securities reduces both costs and risks for the market intermediaries and the investors. Therefore, it is in the interests of all market participants including the issuers, intermediaries or investors that the market infrastructure in place should be in line with best international standards and practices.

Capital market development in many OIC countries is hampered due to lack of investor protection, transparency in securities trading and because of an inadequately developed market infrastructure. Implementation of global standards for market infrastructures within the OIC countries is essential for enhancing safety and efficiency in payment, clearing, and settlement arrangements; to limit systemic risk and foster financial stability.

### **1.3 Assessment Methodology**

---

<sup>1</sup> CPSS-Bank for International Settlements, OICV - IOSCO "Principles for Financial Market Infrastructures" April 2012

## Development of Capital Market Infrastructures

A survey questionnaire was circulated to the COMCEC CMR member jurisdictions to obtain an understanding of their regulatory framework and practices in place for capital market infrastructures. The jurisdiction's responses to the survey were analyzed to explore and formulate recommendations for development of capital market infrastructure that adequately addresses the above issues/areas. The survey questionnaire covered the following four broad areas:

- Existence of capital markets in OIC member jurisdictions
- Responsibilities of market regulators, and other authorities relevant for capital market infrastructures (CMI)
- Existing capital market infrastructure in place in OIC member countries
  - Structure
  - Risk management, settlement and default management
  - Central securities depositories and settlement systems
  - Access to CMI, system efficiency, effectiveness and transparency
- Identification of issues in infrastructure development
  - Gaps in capacity and resources
  - Deficiencies in the legal, institutional and risk management framework

### **1.4 Surveyed Jurisdictions**

The COMCEC CMR Task Force on Market Development would like to acknowledge the following COMCEC CMR members for their valuable input to the mandate.

S.No	Jurisdiction	Institution
1	Cameroon	National Council of Credit/Central Bank (NCC)
2	Iran	Securities and Exchanges Organization (SEO) of IRAN
3	Kuwait	Capital Markets Authority (CMA)
4	Malaysia	Securities Commission Malaysia (SCM)
5	Maldives	Capital Market Development Authority (CMDA)
6	Pakistan	Securities and Exchange Commission Pakistan (SECP)
7	Palestine	Palestine Capital Market Authority (PCMA)
8	Turkey	Capital Markets Board of Turkey (CMBT)
9	United Arab Emirates	Securities & Commodities Authority (SCA)

### **Chapter 2: Preconditions for the Development of Capital Markets**

There are two basic building blocks necessary for a thriving capital market; (i) a macroeconomic and fiscal environment conducive to a consistent supply of, and demand for quality investment instruments/vehicles; and (ii) a market infrastructure capable of supporting efficient operations within the capital markets. Market infrastructure can be further sub-divided into the broad categories of Institutional and Legal Factors; and the role of retail and institutional investors.

This part of the report examines these fundamental factors influencing sound development of the capital markets; the macroeconomic factors; the institutional and legal factors; and the role of retail and institutional investors.

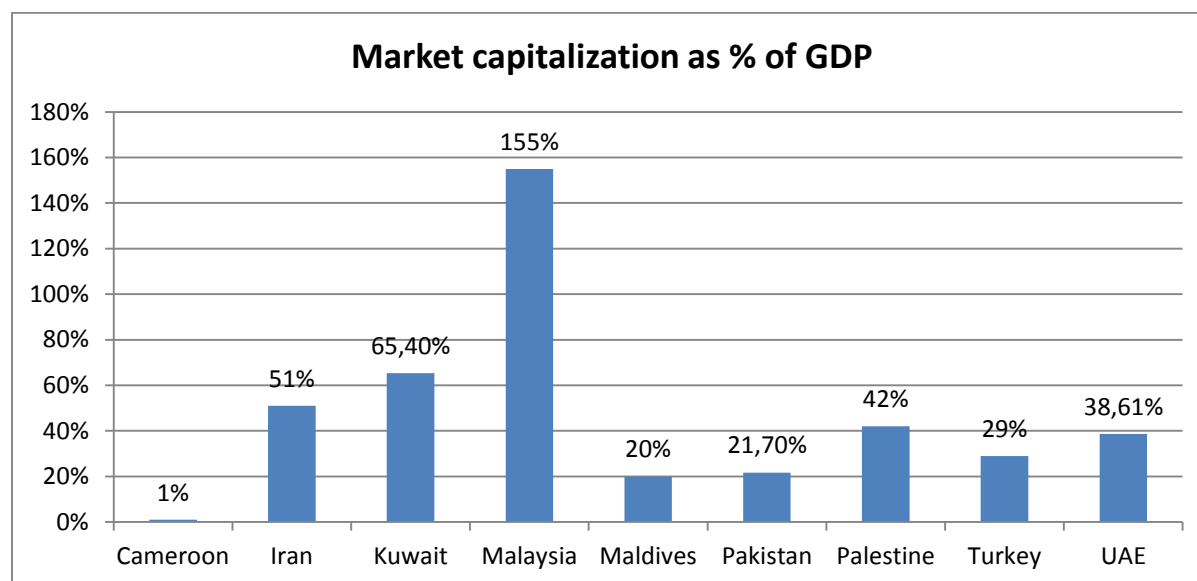
#### **2.1 Macroeconomic conditions**

A stable macroeconomic environment supports a well-functioning financial system and is a much-needed catalyst for sustainable development of the capital market. It plays a significant role in attracting institutional and retail investors by boosting positive sentiments within the market. Factors such as income level, national savings, gross domestic investment, private capital flows and capital market liquidity remain vital in influencing the quantum of total resources that would be channelized towards the capital market and contribute to its development. The per capita GDP figures from our survey showed extremely varied results by the responding jurisdictions. Kuwait and the UAE both recorded a GDP per capita figure over US\$ 30,000, while GDP per capita for Cameroon and Pakistan stood at slightly over US\$ 1,000 which does not bode well for increasing the investor base for the latter economies constraining the quantum of available investment channeled to the capital markets.

The primary function of capital markets is to effectively channelize resources to productive uses. If the macro economy is conducive to profitable business operations, a sufficient number of sound and profitable businesses can progress up to a stage where access to securities markets becomes useful for their continued growth. On the contrary, in the absence of viable and profitable business prospects, it would be increasingly difficult to sustain capital market activity or improve its perception amongst a broader range of potential market participants. Access to finance also becomes an issue where macroeconomic uncertainty is widespread, as avenues to alternate financing apart from banks, such as stock exchanges, private equity and venture capital diminish. However, as the market grows, the impact reverses itself as banks and stock markets tend to act as substitute financing vehicles.

The average number of listed companies within the surveyed jurisdictions has been observed to be approximately 300 across the 9 countries, with Cameroon and Maldives recording the lowest number of 4 and 6 companies respectively, while Malaysia recorded the highest figure of over 900 listed companies.

Market capitalization of an exchange indicates its size and value. The macroeconomic conditions in a country influence market capitalization of the companies listed on an exchange; as improved economic activity translating into enhanced profitability motivates more companies to seek listing while also positively impacting prices of the securities already listed. The ratio of market capitalization to GDP indicates how well the equities market is developed and the percentage of economic activity of a country that is being fuelled by the capital markets. The average market capitalization to GDP ratio for the group of countries that responded to the survey is 47%. This is a significantly lower figure as compared to the world average of 90% (World Bank figures), with only Malaysia showing a ratio of over 100%. These figures depict that there is significant room for further development of the capital markets of the member countries.



## 2.2 Institutional & Legal Environment

Capital market development can not only be impeded due to economic constraints but also more importantly from aspects concerning institutional trust and the regulatory and legal framework. The precondition of a market infrastructure that supports an institutional and legal environment conducive to sustainable development of the capital market can be further sub-divided into the following three components:

- The ***institutional infrastructure***, which provides an operational and informational trail for the market relates to intermediaries that provide; trading, investment management and financial advisory services; market and market-related services for the stock exchanges and over-the-counter markets; market information services; clearing and settlement systems; mechanisms for securities transfer, registration and custody; ancillary services such as accounting and auditing, legal advice, financial valuation; and rating services.

Financial intermediaries play the most vital role in development of not only the capital markets but the financial system as a whole. The existence of a relatively larger number of financially sound



financial intermediaries providing a wide array of market infrastructural support services would increase access, improve standards and lead to greater efficiency through competition.

- The **regulatory infrastructure**, relates not only to the institution that has the power and responsibility to supervise the market, but also includes self-regulatory organizations such as stock exchanges, central depositories, clearing companies, accounting and auditing associations and other professional organizations and institutions entrusted with market oversight and development. The overall regulatory infrastructure encompasses not only their rules and regulations, procedures and facilities but also includes monitoring and enforcement of these rules.

The existence of a regulatory framework, addressing all aspects of market activities such as investors, intermediaries and institutions, lays the foundation for development of capital markets. In addition to a sound legal system, high standards of corporate governance, existence of an independent regulator and unambiguous, expeditious and fair investor protection measures enhance confidence in the capital market. In addition to creating an efficient and orderly market, a clearly defined regulatory framework aids in protecting stability of the market by reducing the risks of failures.

- The **legal infrastructure** provides basis for the operational and regulatory framework. The joint April 2012 report by the Bank for International Settlements and IOSCO titled “Principles for Financial Market Infrastructures” provides valuable insight regarding legal frameworks of financial market infrastructures (FMI). The report while providing that the FMI’s rules, procedures, and contracts are part of the legal infrastructure states that *“The legal framework includes general laws and regulations that govern, among other things, property, contracts, insolvency, corporations, securities, banking, secured interests, and liability. In some cases, the legal framework that governs competition and consumer and investor protection may also be relevant. Laws and regulations specific to an FMI’s activities include those governing its authorization and its regulation, supervision, and oversight; rights and interests in financial instruments; settlement finality”*. The report also provides that *“An FMI should establish rules, procedures, and contracts that are clear, understandable, and consistent with the legal framework and provide a high degree of legal certainty.”*

It may be clarified that the requirements of legal infrastructure as specified above are also equally applicable in the context of the functions, powers and responsibilities of the governmental supervisory authority and self-regulatory organizations. The quality of the infrastructure in place can thus determine the ability of a market to perform efficiently and also cope with the numerous risks that may be posed to the overall system. Adequate legal infrastructure for facilities such as recording of transactions, clearance, settlement and depository systems act as a catalyst for the growth of capital markets through reducing bottlenecks.

In order for a market to be attractive to potential investors, it must earn investor confidence through imposition and effective enforcement of rules which ensure the market is operated

efficiently and fairly. A careful balance of regulation and deregulation however needs to be created to ensure that activity in the capital markets is encouraged while at the same time regulatory roles are not compromised.

### **2.3 Institutional & Retail Investor**

Institutional and retail investors form the total investor base in an economy. While many jurisdictions are dominated by the role of institutional investors, others still rely heavily on their retail investor base. Understanding the importance of both and the characteristics affecting both kinds of investors is essential for regulators to try and build upon the investor base.

Institutional investors are highly specialized and are generally managing substantial capital. Institutional investors can enhance market features in many ways, ranging from increasing liquidity, market stability and influencing market psychology to improving disclosures and corporate governance practices. Institutional investors can also leverage their size to negotiate better services at a lower cost. The development of an institutional investor base is essential for supporting capital markets as they enhance competition and act as a balancing influence, particularly in financial systems which are banking centric. In this form, they represent an alternative savings vehicle to banks for individual investors.

The role of institutional investors' becomes significant as it provide long term financing in the following ways:<sup>2</sup>

- **productive capital**, providing support for infrastructure development, green growth initiatives, SME finance etc., leading to sustainable growth;
- **patient capital** allowing investors to lowers turnover, encourages less pro-cyclical investment strategies and therefore higher net investment rate of returns and greater financial stability;
- **engaged capital** which encourages active voting policies, leading to better corporate governance.

A capital market that is favorable to institutional and retail investors should have reasonable transaction costs (both explicit and implicit) and a broad range of potentially high-quality investment products. In addition, factors such as the macroeconomic environment, level of human capital, regulatory framework and financial stability in a jurisdiction along with distribution channels available are all factors that affect the development of an institutional investor base. Keeping this in view regulation should maintain a balance between innovation and financial stability concerns and provide an appropriate environment for the development of institutional investors.<sup>3</sup>

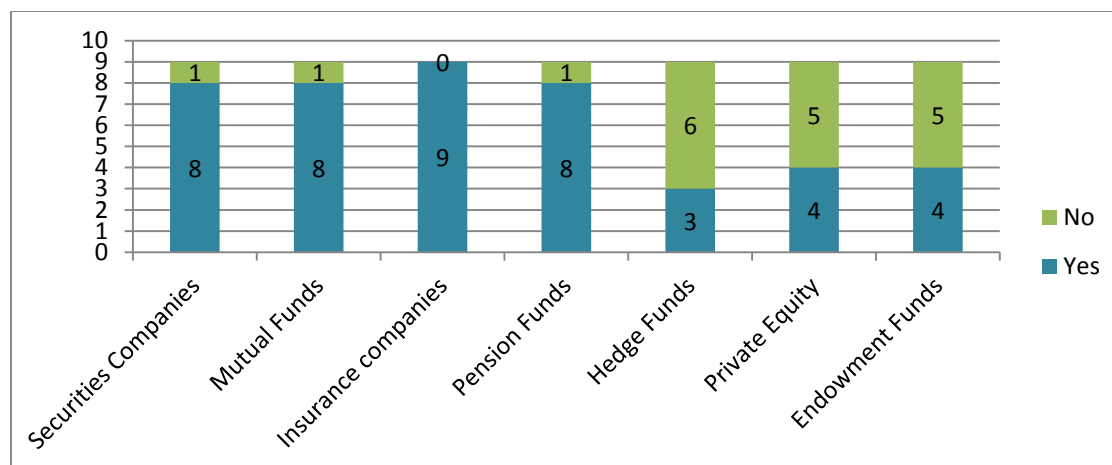
### **Presence of different types of Institutional Investors in OIC member jurisdictions**

---

<sup>2</sup> The OECD has launched a project on Long Term Investment ([www.oecd.org/finance/lti](http://www.oecd.org/finance/lti)), identifying a set of criteria for long-term investment by institutional investors

<sup>3</sup> "Development and Regulation of Institutional Investors in Emerging Markets" – IOSCO, June 2012

## Development of Capital Market Infrastructures



From the surveyed jurisdictions, it has been observed that securities companies, mutual funds, insurance companies and pension funds were the most prevalent types of institutional investors. However, the hedge funds, private equity and endowment funds are present in less than half of the surveyed jurisdictions.

Retail investors on the other hand are individual investors that might not account for large values of trade, but when in abundance can significantly affect the volumes in the markets. Retail investors primarily tend to be hesitant towards investments in capital markets due to a lack of understanding of the modalities in the markets. Financial literacy and investor education programs targeting retail investors are therefore essential for their growth. A number of regulators globally are now beginning to focus on behavioral economics, providing them with an insight into how retail investors view and interact with financial markets along with their expectations and requirements while dealing with market participants.

The number of investors in the surveyed jurisdictions range from approximately 5 million in Iran to 50,000 in Palestine. The bulk of the respondents recorded figures between 100,000 to 300,000. These figures, however, are particularly insignificant when analyzed against the high population numbers. The presence of a large number of brokers also facilitates the growth of retail investors as brokers provide access points towards capital markets. The group in total had an average of just over a hundred brokers, with Pakistan reporting a figure of 449 brokers. This, however, is still a minute amount when seen against a population of over 180 million.

Policy-makers must recognize the importance of devising appropriate strategies to help foster a positive climate for both retail and institutional investor participation in the capital markets. Transparent systems, level of financial literacy, robust institutions and an efficient regulatory environment, catering for investor protection measures are keys to establishing the conditions necessary for the growth and development of a strong retail and institutional investor base.

### **Chapter 3: Types of Capital Market Institutions**

An essential element for capital markets' development in any jurisdiction is the existence of an appropriate infrastructure for capital markets, which smooth transaction flow, minimize transaction costs and most importantly diminished risk to the financial system as a whole. Capital market transactions cannot effectively be implemented without effective capital market institutions. Technological advancements have significantly benefited most of the capital markets infrastructure institutions substantially reducing their costs. Investors in the markets are no longer required to be present on the trading floor and instead can place orders online or through phones. Although their suitability is an entirely separate debate, in more developed countries algorithmic trading software providing high frequency trading have even curtailed human intervention in analyzing market information and placing orders.

In the face of such developments, it is increasingly important for infrastructure institutions to be appropriately interconnected in providing an adequate governance and supervisory structure for the capital markets. To be effective, the financial infrastructure should facilitate the flow of information and price discovery and also be in sync with trading platforms and systems in place. The quality of the infrastructure of stock exchanges, trading platforms, payment systems, central counterparty clearing houses (CCPs) and central securities depositories (CSDs), by which transactions in securities are traded, cleared and settled, plays a crucial role in the ability of any market to attract retail and institutional investors. If risks or costs are high, investors will be deterred, liquidity will be lost and the market will not develop as rapidly as it could.

Capital Market Infrastructure Institutions (CMIIs) can differ significantly in organization, function and design and can be legally organized in a variety of forms. For the purpose of this report, CMIIs will be limited to: exchanges (stock, commodity, over the counter), CSDs, Clearing and Settlement Companies, CCPs and Trade Repositories (TR). Many jurisdictions have a mix of these institutions which suit the needs of their own markets; nonetheless these institutions provide the basic foundations upon which the capital markets in any country operate.

#### **3.1 Exchanges**

Exchanges are platforms which provide buyers and sellers with avenues to buy and sell different securities. There are stock exchanges, commodity exchanges and informal exchanges such as Over the Counter (OTC) markets. Exchanges can exist either as a mutualized exchange or a demutualized one. Mutualized exchanges operate as non-profit companies wherein the members have the ownership as well as trading rights. This structure inherently creates a conflict of interest as members predominately control the affairs of the exchange which results in lack of transparency in the operations of the exchange and compromises investors' interest. On the other hand demutualization is the process of converting a non-profit, mutually owned organization to a profit-bound entity owned by the shareholders. The process involves not only corporatization, which is conversion of a stock exchange limited by guarantee into one limited by shares, but it also segregates ownership and trading rights.

Hence demutualization brings balance among the interests of different stakeholders in the corporate and governance structure of a stock exchange.

**Stock Exchange:** Provides an avenue where securities of different issuers/governments may be bought and sold through the members/brokers of the stock exchange. The major role of the stock exchange is to assist, regulate and control the trading of securities through different measures. Single or multiple stock exchanges can exist from jurisdiction to jurisdiction.

**Commodity Exchange:** These exchanges provide avenues for trading in different types of commodities, such as gold, oil, silver, etc. Commodity exchanges can either provide trading for spot or futures markets. In a futures market commodities are bought and sold for delivery at a future date while in a spot market commodities are traded for immediate delivery. In the same way as stock exchanges, multiple or single commodity exchanges can exist from jurisdiction to jurisdiction.

**Over the Counter (OTC):** Unlike the formal exchange setup described above, OTC trading primarily involves an informal network of trading relationships which are centered around a collection of dealers who act as market makers through quoting two way prices for any security not listed on the formal exchange platform. Such trading activity is often well organized; however it does not provide the same levels of liquidity and regulation as trades executed on a formal exchange platform. OTC markets can exist as part of an exchange or be launched through a separate exchange.

### **3.2 Central Securities Depositories**

Over the period of time, as trading activities have evolved and participation in the markets increased manifold, the role of the CSD in maintaining efficiency and holding securities has become an essential requirement in the functioning of efficient markets. The CSD is an institution that in most cases is primarily involved in dematerializing physical securities (transferring from physical holding to electronic holding), transferring ownership through book entries to electronic accounting systems and taking over the custody of securities in physical certificate form or in the electronically dematerialized form, thus increasing efficiency and reducing risks associated with securities transactions. Furthermore, the CSD usually plays the role of a link between the issuer and the registrar of securities for the purpose of executing corporate actions such as disbursement of corporate benefits and carrying out mergers and splits. Efficiency gains are achieved through elimination of manual errors in handling physical certificates, lower costs for transactions, and faster processing through automation.

The activities of a CSD differ from jurisdiction to jurisdiction depending on the level of technology and automation available, with some jurisdictions even opting for multiple depositories. For example, the activities of a CSD may vary depending on whether it operates in a jurisdiction with a direct or indirect holding arrangement or a combination of both. In many developing jurisdictions securities are still held in physical forms rather than in a dematerialized nature. Furthermore, in many cases the stock exchange in itself can play the role of a depository institution rather than a separate institution on its own. Depository institutions are also used for clearing and settlement of transactions in some cases as described below.

### **3.3 Clearing and Settlement Institutions**

These infrastructure institutions provide clearing and settlement services to the stock exchanges. Transactions executed on the stock exchanges are registered with clearing and settlement companies where the final execution of the trade takes place. In this way the risk of one or more parties failing to meet the terms of the agreement can also be reduced. The process involves two primary tasks: trade comparison (matching of trades) and settlement (delivery of securities or book entry).

The institution's role is to settle the obligations of one financial intermediary to another. When a transaction takes place, the buyers and sellers record the trade details. Brokers and dealers receive confirmations that the trade has been executed and pass on the details of the confirmation to their clients. Once that is done the details concerning the orders are passed to the clearing firm which, upon confirming there is no discrepancy between the orders, clears the trade and settles the accounts of the respective parties. Trade settlements occur when buyers receive their securities and when sellers receive payment for their securities. Ownership of the securities is thus transferred from one party to the other. This process can take place either through a separate entity or merged with another intermediary such as a CSD.

### **3.4 Central Counterparties**

A clearing house acts as a CCP when it interposes itself, directly or indirectly, between counterparties in order to assume their rights and obligations, acting as the direct or indirect buyer to every seller and the direct or indirect seller to every buyer. CCPs have the potential to reduce risks significantly to participants through the multilateral netting of trades and by imposing more-effective risk controls on all participants. For example, CCPs typically require participants to provide collateral (in the form of initial margin and other financial resources) to cover current and potential future exposures. CCPs may also mutualize certain risks through devices such as default funds. As a result of their potential to reduce risks to participants, CCPs can also reduce systemic risk in the markets they serve. The effectiveness of a CCP's risk controls and the adequacy of its financial resources are critical to achieving these risk-reduction benefits.<sup>4</sup>

The most common way for a CCP to assume the rights and responsibilities of counterparties is called "novation", in which two new contracts are created – between the CCP and the buyer, and the CCP and the seller – to replace the single, original contract between the two parties thus, transferring counterparty risk to the clearing house. In order to offer these services, CCP clearing members usually require a license based on minimum levels of equity and adherence to certain standards, along with meeting minimum capital requirements. A clearing house that offers central counterparty services establishes and records obligations arising from trading on a marketplace (securities exchanges, derivatives exchanges, etc.) and ensures that those obligations are processed according to the applicable rules. In markets where a CCP does not exist, a guarantee arrangement may provide market participants with some degree of protection against losses from counterparty defaults. Such

---

<sup>4</sup> CPSS-IOSCO "Principles for Financial Market Infrastructures" April 2012

arrangements are typically organized and managed by the stock exchange, CSD or a clearing and settlement company.

All in all, CCPs increase market safety and integrity by:<sup>5</sup>

- Mitigating and management of counterparty risk
- Mitigating liquidity & operational risks
- Addressing information asymmetries
- Reducing complexity and increasing efficiency

### **3.5 Trade Repositories**

TRs have emerged as a new type of infrastructure institution that has recently grown in importance after the financial crisis, particularly in the OTC derivatives market, since trade reporting requirements have come to the forefront of financial market regulations. A TR is principally an entity that maintains a centralized electronic database of transaction data. By centralizing the collection, storage, and dissemination of data, a TR with effective risk controls can effectively enhance the transparency of transaction information to relevant authorities, promoting financial stability, and supporting the detection and prevention of market abuse. Due to this TRs are essential to bringing transparency to the markets by making market positions and potential risk concentrations fully visible to regulators and, in aggregate form, to the public.

An important function of a TR is to provide information that supports risk reduction, operational efficiency and effectiveness, and cost savings for both individual entities and the market as a whole. Such entities may include the principals to a trade, their agents, CCPs, and other service providers offering complementary services, including central settlement of payment obligations, portfolio compression and reconciliation, and collateral management. As the data maintained by a TR may be used by a number of stakeholders, the continuous availability, reliability, and accuracy of such data are critical.<sup>6</sup> It is therefore of utmost importance that market regulators ensures that data requirements are consistent with data protection laws within the jurisdictions of the reporting parties.

The benefits of a TR stem from the centralization and quality of the data that a TR maintains. Timely and reliable access to data stored in a TR has the potential to significantly improve the ability of relevant authorities and the public to identify and evaluate the potential risks posed to the broader financial system. Furthermore, a TR is also involved in promotion of standardization through the provision of a common technical platform that requires consistency in data formats and representations. The result is a centralized store of transaction data with greater usefulness and reliability than when the data are dispersed. By collecting and transferring information to regulatory authorities, TRs play a vital role in supporting authorities to carry out their market surveillance responsibilities, which in turn helps to maintain financial stability.

---

<sup>5</sup> <http://www.world-exchanges.org/insight/views/role-central-counterparties-financial-crisis-recovery>

<sup>6</sup> CPSS-IOSCO “Principles for Financial Market Infrastructures” April 2012

## Chapter 4: Capital market infrastructure in place in OIC member countries

This section of the report outlines the different infrastructural arrangements in place in the surveyed jurisdictions for the functioning of capital markets and goes on to highlight the working modalities and ownership structures of the infrastructure institutions.

### 4.1 Stage of Capital Market Development

The results of the survey show that in all jurisdictions that responded to the survey, a separate securities regulator regulates the capital markets. This indicates that the OIC countries have realized significance of the concept of an independent securities regulator. The results of our survey also indicate that market participants are required to obtain a license from the securities regulator in the responding jurisdictions which coupled with the fact that it is mandatory for market participants in the entire survey group to be certified, acts as a protection tool for investors. However, one major finding from the survey shows that capital market infrastructure institutions are not clearly defined in some of the jurisdictions such as Maldives, Pakistan and Palestine. In jurisdictions where a definition for the same exists, it is laid out in the law. The table below shows the information regarding regulatory requirements pertaining to capital market infrastructure:-

**Table 1: Stage of Regulatory requirements for Capital Market Infrastructure**

Country	Separate Securities Regulator	Definition of Capital Market Infrastructure	Registration of Market Participants	Certification of Market Participants
Cameroon	Y	Y	Y	Y
Iran	Y	Y	Y	Y
Kuwait	Y	Y	Y	Y
Malaysia	Y	Y	Y	Y
Maldives	Y	N	Y	Y
Pakistan	Y	N	Y	Y
Palestine	Y	N	Y	Y
Turkey	Y	Y	Y	Y
UAE	Y	Y	Y	Y

### 4.2 Structure of the market infrastructure in place

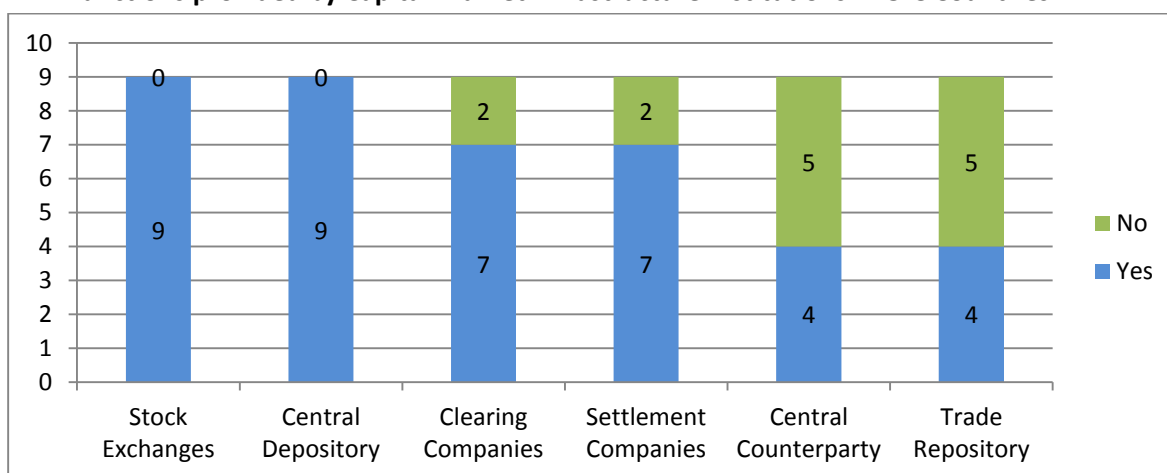
The survey showed that in majority of the jurisdictions, the capital market infrastructure is quite developed. Where a separate entity might not be in place to cover various functions of infrastructure institutions, the function is handled by a different infrastructure institution. The two major components of CMI, i.e. stock exchanges and central securities depositories are present in all jurisdictions; however, the clearing and settlement infrastructures are undoubtedly in a phase of development. Four of the countries do not have separate clearing companies (i.e. Cameroon, Iran, Maldives and the UAE). These



countries have integrated the clearing function into other market infrastructure institutions, like the stock exchanges and the central depository. In the UAE, clearing, settlement, central counterparty, trade repositories functions are handled by the respective stock exchanges while in Iran, the CSD is responsible for depository, clearing and settlement. Conversely, in Malaysia and Pakistan, the clearing company provides both the clearing and settlement functions.

However, the concept of central counter party and trade repository is not present in a majority of the jurisdictions. Separate trade repositories existed only in Turkey while Malaysia stated that they are in the process of establishing a trade repository for reporting of OTC derivatives transactions. A separate exchange for commodities is also not present amongst majority of the jurisdictions, with Iran and Pakistan as the only exception. The chart below shows the various infrastructure institutions that exist within the responding jurisdictions.

**Functions provided by Capital Market Infrastructure Institutions in OIC Countries**



**4.3 Role and Mandate of Institutions**

All jurisdictions apart from Palestine responded to this part of the questionnaire. Given below is a brief of different institutions that comprises the capital market infrastructure in responding jurisdictions.

**Cameroon:** The capital market infrastructure in Cameroon is not highly developed. There are only 4 companies registered at the Douala Stock Exchange, the only stock exchange in the country. There are also 13 banks for 20 million inhabitants.

**Iran:** The Securities and Exchange Organization functions as the capital market regulator. TSE, IME, Irfarabourse and Energy Exchange are the different types of exchanges. CSDI is responsible for depository functions as well as clearing and settlement of securities trading. TSETMC is responsible for maintenance of trading system and centralized market database.

**Kuwait:** In Kuwait, the stock market provides a specialized market to accommodate trading of securities which follows trading protocols and carries out the usual procedures of stock markets. The Clearing Agency undertakes the process of settlement or clearing among the traders of securities with respect to

payment, delivery or both. It also provides special services in this regard, such as central deposit of securities according to a central system of deposits and transfers of ownership. Kuwait also has a separate regular and SME Market.

**Malaysia:** Bursa Malaysia Berhad is an exchange holding company approved under Section 15 of the Capital Markets and Services Act 2007. It operates a fully-integrated exchange, offering the complete range of exchange-related services including trading, clearing, settlement and depository services. The wholly-owned subsidiaries of Bursa Malaysia Berhad (i.e. the capital market infrastructures) operate the various businesses, as set out below:

- Bursa Malaysia Securities Berhad (BMS) - provide, operate and maintain securities exchange
- Bursa Malaysia Securities Clearing Sdn Berhad (BMSC) – provide, operate and maintain a clearing house for the securities exchange
- Bursa Malaysia Derivatives Berhad (BMD) – provide, operate and maintain a futures and options exchange
- Bursa Malaysia Derivatives Clearing Berhad (BMDC) – provide, operate and maintain a clearing house for the futures and options exchange
- Bursa Malaysia Depository Berhad (BMDepo) – provide, operate and maintain a central depository

**Maldives:** The infrastructure in Maldives consists of a stock Exchange, a depository company, dealing companies and custodians and all these functions are overseen by the Capital Markets Development Authority.

**Pakistan:** There are three stock exchanges in Pakistan and one commodity futures exchange. The Securities and Exchange Commission of Pakistan is the apex regulator of the capital markets while there is also a National Clearing Company (which is responsible for the clearing and settlement of the stock market) and Central Depository Company which acts as the Central Depository for equity, debt and other financial instruments that are traded in the Pakistani capital markets.

**Turkey:** The Turkish capital markets are governed by the Capital Markets Board of Turkey and the infrastructure consists of Exchanges, Depository, Clearing Institutions, Central Counterparties and Trade Repositories.

**UAE:** In the UAE there are three exchanges under the jurisdiction of the SCA namely: the Abu Dhabi Securities Exchange (ADX), Dubai Financial Market (DFM), and Dubai Gold and Commodities Exchange (DGCX). ADX and DFM are handling clearing, settlement, central counterparty and trade repositories functions.

#### **4.4 Ownership Structures of Infrastructure Institutions**

## Development of Capital Market Infrastructures

The results of the survey show that Capital Market Infrastructure institutions are primarily owned privately or by the public. Stock exchanges are the only infrastructure institutions partially under the ownership of the government in some countries like Kuwait, Malaysia, Turkey and UAE. In Kuwait, the government currently has control over the stock exchange, however, Law 7 of 2010, Article 33, requires the privatization of Kuwait Stock Exchange. As such, Kuwait Stock Exchange will be privatized in the near future.

In the UAE there are three exchanges under the jurisdiction of the SCA namely: the Abu Dhabi Securities Exchange (ADX) which is completely owned by the government, Dubai Financial Market (DFM) which is owned by the public and the government, and Dubai Gold and Commodities Exchange (DGCX) which has a mix of government and private ownership.

Holding companies structure is only available in Malaysia. In this structure all the Capital Market Infrastructure institutions are subsidiaries of Bursa Malaysia Berhad (public listed exchange holding company) 69.55% of which is owned by the public, 11.50% by the government and 18.55% by the Capital Market Development Fund.

The tables below show the information regarding ownership structure of market infrastructure institutions:-

**Table 2: Ownership structure of CMI's**

Country	Ownership	Stock exchange	CSD	Clearing co	Settlement co	CCP	Trade Rep
<b>Cameroon</b>	Govt.						
	Public	√					
	Private		√	√			
<b>Iran</b>	Govt.						
	Public	√	√	√	√		
	Private						√
<b>Kuwait</b>	Govt.	√					
	Public						
	Private		√	√	√		
<b>Malaysia</b>	Govt.	√					
	Public	√	√	√		√	
	Private						
<b>Maldives</b>	Govt.						
	Public						
	Private	√	√				
<b>Pakistan</b>	Govt.						
	Public	√					
	Private		√	√	√		
<b>Palestine</b>	Govt.						
	Public						

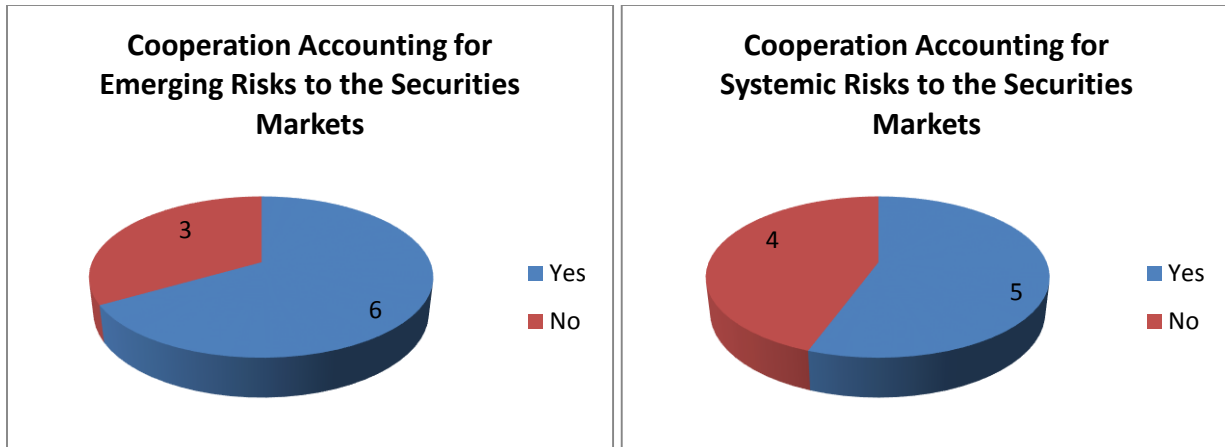
## Development of Capital Market Infrastructures

	Private	√	√				
<b>Turkey</b>	Govt.	√					
	Public						
	Private	√	√	√	√	√	√
<b>UAE</b>	Govt.	√					
	Public	√					
	Private	√					

### 4.5 Cooperation between institutions

For the smooth functioning of capital markets, it is essential that infrastructure institutions cooperate in a timely and effective manner due to the dependency between different institutions. The survey results illustrate that, in general, high levels of cooperation mechanisms exist in the surveyed OIC members. Cooperation existed on a daily basis in almost all jurisdictions except for Turkey, where infrastructure institutions cooperated on a weekly basis. In Malaysia, different frequencies and levels of cooperation existed, depending on the nature of the issue at hand.

Apart from cooperating on day to day activities, cooperation amongst infrastructure institutions is necessary to tackle risks posed to the capital markets. This entails both, emerging risks and systemic risks. Amongst the surveyed jurisdictions, two thirds of the respondents had mechanisms in place which accounted for emerging risks, while 5 of the 9 jurisdictions had a set up in place to oversee systemic issues. In Malaysia, BMB which is the front line regulator, is obliged to engage and report to the Securities Commission of Malaysia from time to time on relevant regulatory, supervisory and surveillance matters. With such robust oversight structure, the aforesaid emerging risks and/or systemic risks are monitored, managed and mitigated in an effective manner. In Turkey, the CMBT analyzes reports of the stock exchange, central depository and clearing and settlement institution to counter for emerging and systemic risks. On the other hand in Cameroon, Iran and Palestine, no procedures or mechanisms of cooperation exist to tackle emerging or systemic risks. This may be a source of concern as identification of risks prior to the risk actually evolves can help to evade a crisis. In Pakistan, to address the emerging risks various cross institutional committees have been established, however, no measures for identification of systemic risks caused by the capital markets are currently in place.



As the effects of globalization increase, many regulators have adopted strategies to align their regulatory processes with international best practices. Iran, Pakistan and Turkey at present do not have a documented process of regulatory integration with international best practices on regulations or developments of systems/processes, however, international standards are followed as benchmarks when developing regulations or processes. In Palestine, international benchmarks set by the International Organization of Securities Commissions (IOSCO) are followed for this purpose.

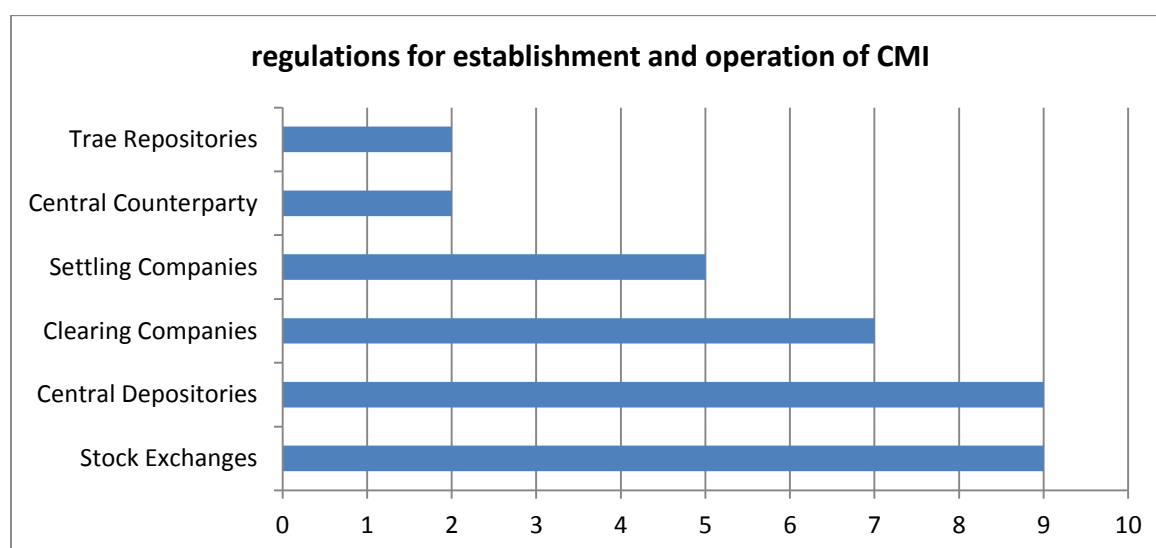
Furthermore, to enhance cooperation, various modes of communication for infrastructure institutions to interact with each other and market participants are used. As a norm, institutions primarily use the telephone, emails or postal mails to interact with concerned stakeholders. In Pakistan and the UAE, SMS facilities are also used as a mode of communication.

## Chapter 5: Regulation and Oversight of Capital Market Infrastructure Institutions

### 5.1 Legal and regulatory framework

In order to develop an efficient and sustainable capital market, it is important that adequate and sound legal and regulatory framework exists for capital market infrastructure institutions. The regulatory framework also needs to be augmented with sufficient provisions to cater any emerging issue. It is also equally important that the legal and regulatory framework should ensure fair business practices in a transparent manner. Such framework is expected to support business activity within the capital market without compromising the objective of the protection of the investors' interests.

Review of the responses exhibited that clear and separate regulations are in place for stock exchanges and depository companies in all the jurisdictions. Legislative support has also been provided for operations and conduct of stock exchanges, depository companies and brokers. Furthermore, except for Maldives and Palestine, there are legislations in place for the conduct and operations of clearing companies. It is also observed that except Cameroon, Malaysia, Maldives and Palestine regulations for the establishment and operations of settlement companies are in place.



It has also been observed that except for Malaysia and Turkey, the two comparatively developed jurisdictions, separate regulations for the establishment of the central counter party and trade repositories do not exist. Furthermore, legislation for conduct and operation of brokers also exists in all the surveyed jurisdictions.

Regulatory approval processes appear to be almost the same for all nine jurisdictions i.e. capital market infrastructure institutions develop and obtain approval of the regulator for their regulatory framework. Majority of the stock exchanges apart from Cameroon and Kuwait are demutualized and publically-owned entities whereas the majority of other capital market infrastructure institutions are private entities. Holding companies structure is only available in Malaysia. In this structure all the capital market infrastructure institutions are subsidiaries of Bursa Malaysia Berhad (public listed exchange holding

company) 70% of which is owned by the public, 11.50% by the government and 18.55% by the Capital Market Development Fund. The board and management are collectively responsible for the governance of these institutions, apart from Iran where governance is looked after by only the board.

Cameroon, Turkey and UAE have no requirement for independent directors whereas the number of independent directors on the board of capital market infrastructure institutions varies amongst remaining countries. No consistency in practices of these nine jurisdictions has been observed.

All the jurisdictions have reported to have regulatory framework in respect of control over the securities market and its participants to ensure public confidence, investor protection and prevention of failures in the market. In Cameroon, the regulator is in the process of updating the framework to make it more conclusive. In addition, almost all jurisdictions have a Code of Corporate Governance in place for listed companies, enforced by either the stock exchange and/or the securities regulator. In Cameroon and Kuwait, however, the Code is being enforced by a department of the Ministry.

A robust regulatory framework for capital market infrastructure institutions is an important element for development of capital markets that enable the capital market infrastructure institutions perform their functions more transparently, efficiently and effectively.

From the review of responses it is clear that the concept of Central Counter Party (CCP) and Trade Repositories is still at a nascent stage and is only implemented in two jurisdictions. A CCP can play a fundamental role in increasing and sustaining investor confidence while ensuring smooth and uninterrupted functioning of the capital markets. Similarly, Trade Repositories provide the markets with necessary support and bank of useful information which is vital for effective functioning and development of markets in the light of exceedingly competitive environment. It is also observed that separate regulations and legislative support for establishment and operations of settlement companies is not present in some of the jurisdictions. Therefore the respective jurisdictions should consider developing a roadmap for establishment of these important infrastructure institutions.

In order to enable capital market infrastructure institutions to be independent and transparent in overall governance and decision making process, role of independent directors is crucial. Given the fact that no standard practice is being followed in this regard, it is recommended that efforts should be made to develop uniform standards that may be applied by all jurisdictions.

It is also observed that out of nine, only two stock exchanges are still mutualized. Efforts should be made for expeditious demutualization of these exchanges to bring more transparency in the governance structure while reducing inherent conflict of interest due to combination of ownership and trading rights in a mutualized structure. It may however be borne in mind that demutualization is not the end but a means to an end and further efforts would still be required thereafter in various areas for achieving its true benefits; such as segregation of commercial and regulatory functions

### **5.2 Supervision of infrastructure institutions**

The supervision and oversight of systematically important infrastructure institutions is imperative for promoting and maintaining the domestic capital market. However, for effective supervision and oversight it is prerequisite that the law should empower the apex regulator not only to conduct oversight but also to take corrective actions in order to address identified issues.

It has been observed that over the years, as capital markets have started to develop all over the world and new complex products have started to evolve, many jurisdictions have geared up their supervision of strategically important market infrastructure institutions. Jurisdictions have realized that due to size and functions of these institutions, failure may create systemic issues not only for the capital markets but also to the whole financial system.

The results of the survey showed that all responding countries have separate securities market regulator for regulation and supervision of capital market infrastructure institutions. Further, it was also observed that the apex regulators of all surveyed jurisdictions have the power to conduct surveillance of price movements, regular monitoring of companies activities, investigations into insider trading and power to apply sanction and fines. Almost all regulators have the power to regularly monitor compliance of securities market rules and regulations by market intermediaries, except for Cameroon. In Cameroon and Maldives, apex regulators do not have powers to maintain portfolios of insiders and monitor trades by insiders.

From the above it is clear that most of the jurisdictions have separate securities market regulator which have been given sufficient powers for supervision of the market infrastructure institutions and their functioning.

Effective supervision of infrastructure institutions is critical in achieving the core objectives of maintaining investor confidence and ensuring efficient and orderly conduct of capital markets. Results of the survey demonstrate a trend of putting heavy reliance on the apex regulators for supervision activities. Taking into consideration the direct and operational relationship of stock exchanges and other intermediaries with market participants, the capital market institutions can also play a major role in implementing a stringent and comprehensive supervision and compliance regime. Furthermore, regulators need to be equipped with adequate supervision and enforcement powers to effectively discharge their responsibilities. While majority of jurisdictions reported adequate surveillance, monitoring powers and ability to maintain insiders' portfolios, some weaknesses identified above need to be addressed.

### **5.3 Corporate Governance and Accounting Requirements**

Corporate governance determines relationship between the management and other stakeholders and provides a structure through which the objectives of the institution are set, and the means of attaining those objectives and monitoring performance are determined. Accounting requirements also help to provide appropriate information to the users of financial information in a timely manner. Both good corporate governance and effective accounting requirements enhance levels of transparency within the



markets and boost stakeholder's confidence in the capital market infrastructure institutions. Corporate governance, in addition to the above also enables the board and management to pursue objectives that are in the interests of the institution. Other stakeholders also attain a better position to monitor the performance of such institutions.

The responses from the 9 jurisdictions indicate that, except for Iran, all of these jurisdictions have in place a code of corporate governance. However, manner of enforcement of said code varies in these jurisdictions. It was observed that in Pakistan and Malaysia the stock exchanges are responsible to enforce the Code of Corporate Governance, whereas, in Maldives and Turkey only the securities market regulator ensures enforcement of the Code. In UAE and Kuwait the securities market regulator along with government ministries ensures the compliance of the Code. In Cameroon the Ministry of Finance along with the sub-regional Economic Union and in Palestine the National Committee for Corporate Governance enforces the Code of Corporate Governance.

Enforcement of code of corporate governance particularly for listed companies is very important for stakeholder's confidence in the capital market. However, different practices in the different jurisdictions may lead to different results. Further, the investors of these jurisdictions have to assess level of compliance with the requirement of code of corporate governance separately for each jurisdiction. Therefore, it is important to put in place a code of corporate governance which is consistent amongst all OIC member countries and adopt standardized practices for enforcement of the harmonized Code.

### **5.4 Investor Protection**

Protection of investor's interest is crucial for the development of the trust on the integrity of capital markets operations. Investor protection promotes confidence of the investor by reassuring them that their interests are being safeguarded against market malpractices and that recourse against such malpractices is available within the legal and regulatory framework.

Therefore, the regulatory framework should ensure that sufficient protection is given in law to the interest of investors. The applicability of the framework and adequate enforcement measures under the framework will ensure growth of the investors' confidence through protection of client assets, increasing not only the size of the market but also its depth by encouraging new investors and introduction of new products.

Further, as markets are now competing to attract capital from world over, companies are gauged by investors using various factors that demonstrate a sustainable track record. The investment decisions taken by local and international investors are impacted by the governance practices in place. In order for companies to compete globally, they have to follow enhanced corporate governance standards which are accepted globally. This is an essential factor towards making capital markets transparent, protecting the rights of minority shareholders and attracting and retaining foreign investment.

Furthermore, as stated earlier in the report, in all jurisdictions, the securities market regulator has been given sufficient powers to oversee the working of the market infrastructure institutions. Similar powers have also been given to the stock exchanges to check that their operations are being conducted in

accordance with the applicable laws. However, Iran, Kuwait and Palestine have not delegated powers to the stock exchanges to impose sanctions and fines on market participants for violation of the applicable rules and regulations.

With regard to the protection of the investors/clients assets it was observed that the term “Client” has been defined in six jurisdictions excluding Kuwait, Pakistan and Turkey. However, in all nine jurisdictions, there is requirement for segregation of clients’ assets from the intermediaries’ assets. The securities regulator has the power to take enforcement actions, such as imposition of fines and suspension of trading, in case any intermediary fails to meet the said requirements. Moreover, except for Palestine, all jurisdictions require that intermediaries should get prior authority/permission required from their Clients for utilization / movement of client assets. Further, none of the jurisdictions allow creation of third party interest on clients’ assets without prior consent/permission from the client.

It was observed from the responses to the questionnaire, that in the case where market intermediaries default, only Cameroon and Palestine do not have an Investor Protection Fund (IPF) in place for this purpose, whereas, Iran, Turkey, Kuwait, Malaysia, Maldives and Pakistan have an IPF in place, which can be utilized in such situations.

On the other hand, utilization of client assets for compensating default of the market intermediary is not authorized in any of the jurisdictions. However, Cameroon stated, that such a process is at present being considered.

From the above it appears that these jurisdictions have put in place sufficient regulatory requirements to protect the assets of the clients of the intermediaries and unauthorized use of the same. However, some of the jurisdictions need to define the term “Client” and “Client Assets” in order to clear any ambiguity in the regulatory framework with regard to the protection of the client’s assets.

Furthermore, jurisdictions which do not have Investor Protection Funds should consider the establishment of the same while taking into account the overall investor protection regime and evaluate the benefits in the form of increased investor confidence and providing more reliability to the process of satisfactory investor claim settlement. Moreover, the jurisdictions which allow utilization of clients’ assets in case of default by the market Intermediary need to revamp their default settlement mechanisms and processes so as to bring them in line with the uniform globally accepted practices. Such initiative will also help enhance investor confidence and bring more stability to their respective markets.

## **5.5 Risk Management**

### **5.5.1 Credit Risk - sufficient financial resources, margins, collateral etc.**

The risk management process entails ongoing monitoring and analysis of data which must be continuously updated. Once a risk has been identified, it may be necessary to determine appropriate models to quantify the risk and/or evaluate possible ways to adjust the risk.

From a capital market perspective, credit risk is the risk of loss of principal or loss of a financial reward stemming from an investor's failure to repay its financial obligation arising out of the contract executed in the capital market. In order to ensure that financial obligations are settled by the investor in a timely manner, so as to complete the settlement process and prevent failed trades, appropriate margining regimes are put in place by the capital market infrastructure institutions. These margin requirements should be appropriately linked with the exposure taken by the investors so as to ensure that, in case of failure of any broker/investor to settle its financial obligation, the margin may be utilized to compensate the possible loss arising out of such failure.

The responses show that except for Cameroon, Iran and Palestine, systems and procedures are in place through which credit risk can be assessed and monitored. In order to mitigate risks, capital adequacy requirements have been prescribed by majority of jurisdictions along with margin requirements. In Pakistan each exchange has its own collateral management system which is integrated with the trading system of the exchanges and is used to monitor exposure of the broker and its clients, while in Maldives liquidity margins, minimum balance in the clearing shortage account and capital adequacy requirements are measures adopted to mitigate credit risk. Except for Cameroon and Pakistan, initial capital requirements are in place in order to be a broker/dealer in securities. Furthermore, in Kuwait, Malaysia, Pakistan, Turkey and the UAE, the total exposure of a broker is linked with its capital requirement. In Malaysia, Pakistan and Turkey, a maximum limit on the total exposure of a broker is also imposed to manage credit risk associated with concentration of positions.

It has also been observed that pre-trade margins are applicable in a majority of jurisdictions on a fixed percentage or percentage of order value basis, whereas, in Malaysia VAR based pre-trade margins are applied. Further, post trade margins are only applied in Malaysia, Pakistan and Turkey. In Malaysia, SPAN based margining for post trades are applicable while VAR and fixed percentage are used in Pakistan and Turkey respectively for calculating post trade exposure margins. All jurisdictions, except for Maldives and Palestine also apply Marked to Market valuation for calculation of MtM profits/losses. There is no uniform trend in assigning responsibility for calculating margins and the task is assigned to stock exchanges, clearing companies and market intermediaries across different jurisdictions. In the UAE, the market intermediaries along with the stock exchange are both responsible for calculating margins. The margin requirements are clearly prescribed in the regulations of most responding jurisdictions.

Except for Maldives and Palestine, the regulators have powers to impose additional margins if necessitated by the capital market conditions. Failures to pay/ deposit margins in most jurisdictions may lead to disciplinary action including imposition of fines and penalties on defaulting persons. Cash, listed shares and bank guarantee are most common collateral instruments accepted as margins, while in Kuwait, Pakistan and Turkey listed debt instruments and government bonds in addition to the above may also be used. For all acceptable collateral apart from cash, different methodologies for valuation of different types of instruments as collateral are in place. Only in Pakistan is the entity which is responsible for collection and maintenance of margin requirements different from the entity which carries out valuation of the collateral.

Based on review of responses from the group, there is a need for applying uniform standards across jurisdictions with regards to the capital adequacy and margin requirements. Linking the trading exposures with adequate capital requirements and placing upper limits on the trading limits can enhance efficiency and reduce risk. Most importantly a uniform set of standards needs to be developed for calculating capital adequacy requirements as opposed to varying methodologies adopted by different jurisdictions. Similarly the methodologies for calculating margins and the form of acceptable collaterals also need to be reviewed and standardized. In this regard, the degree of risk attributable to the different market segments should also be taken into account.

### **5.5.2 Liquidity Risk**

Liquidity risk is the possibility of sustaining significant losses due to the inability to take or liquidate a position quickly at a fair price. It can be difficult to measure because liquidity can appear adequate until adverse events occur. Regulators have taken the liquidity risk management into consideration and have developed significant measures to calculate and curtail liquidity risks by developing capital adequacy requirements and various systems and processes.

As per the responses received, all the jurisdictions have capital adequacy requirements in place for market intermediaries. However, in Cameroon, capital adequacy requirements are restricted to banks only. In Turkey, capital adequacy requirements are placed according to the activities in which investment firms are doing in the capital markets. On the other hand, systems and processes have been developed to assess and monitor the liquidity risk in a majority of the jurisdictions except for Iran, Palestine and Turkey.

With regards to the measures for mitigating liquidity risk, requirements differ from jurisdiction to jurisdiction, such as guarantee funds, Basel II, capital adequacy ratios and separate regulatory framework designed for this specific purpose. In Malaysia, the stockbroking companies are subject to the Liquidity Risk Management Framework (LRM Framework). They are required to manage their liquidity risk by categorizing their liquid assets into different maturity buckets, from realizable within 3 days up to 30 days.

All the jurisdictions which have replied to the questionnaire have put in place different measure in order to mitigate the liquidity risk except for Iran, thus Iran should make clear Rules and Procedures to address the same. Further, the majority of responses reflect a trend of applying capital adequacy requirements for addressing liquidity risk. However, there is a need to coordinate and develop a standard set of procedures/methodology suitable for securities markets which can be applied across all OIC member jurisdictions.

### **5.5.3 General Business and Operational Risk**

Like any other business, capital market infrastructure institutions and their participants, take various risks while undertaking their business activities. Business risks imply uncertainty in profits or danger of loss and the events that could pose a risk due to some unforeseen events in future, which causes business to fail. Operational risk is the risk of loss resulting from inadequate or failed internal processes,

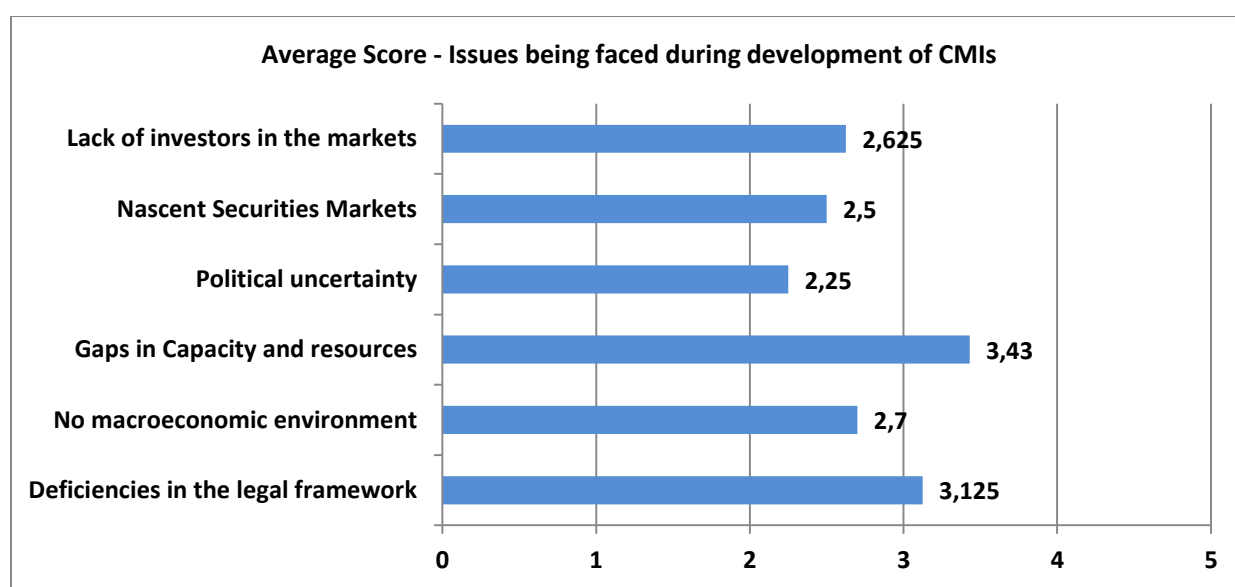
people and systems, or from external events. It is the broad discipline focusing on the risks arising from the people, systems and processes through which an institution operates. It can also include other classes of risk, such as fraud, legal risks, physical or environmental risks etc.

The responses received showed that not all jurisdictions have risk based supervision approach and no regulation periodic stress testing of clearing and settlement systems is being undertaken in most of the jurisdictions. Disclosure of relevant information to the participants of capital market appears to be sufficient, taking into account risks to participants, rights and obligations of participants, different costs and fees along with information on changes in rules or procedure. For disclosure of information, websites and notices are being used as the primary tools to disseminate information to the public on a prompt basis.

Review of the above information received from the responding jurisdictions indicates that risk based supervision and periodic stress testing of clearing and settlement systems need to be adopted by all jurisdictions. Disclosure and frequency of relevant information to the participants of capital market needs to be made more effective in the case of Iran.

**Chapter 6: Issues and Challenges for Infrastructure Development**

As mentioned earlier, the member states of the OIC exist at different stages of development; each state has its unique problems that impacts the growth of its capital market infrastructure. Some of the more recurring problems have been laid out in general terms. The chart below shows the primary issues being faced by responding OIC members with regards to development of capital market infrastructures. A higher score reflects the severity of the issue being faced. As depicted from the chart below, gaps in capacity and resources and deficiencies in legal framework are the main issues of concern towards development of capital market infrastructures for the entire group. Political uncertainty on the other hand has obtained the lowest average score and thus is not being considered as a huge hindrance by most jurisdictions.



**6.1 Gaps in capacity and resources**

Of the seven countries that responded positively to gaps in capacity or resources, Cameroon, the Maldives and Pakistan were the ones who expressed a great need to increase capacity and resources, while the issue did not merit as much significance in Kuwait, Malaysia and Turkey, all giving it an average score of 2 out of 5. The complaint stems from a general lack of basic infrastructure, absence of technological tools and primarily unskilled workforce.

The heart of the problem lies with the lack of specialization in the workforce employed in these countries. There is a lack of emphasis on higher education and there are few posts which are available to those that pursue it; nepotism reigns in these areas. Those that can afford a quality education pursue it abroad, as the government does not allocate a large number of funds to the development of the education sector.

The specialization gap could be met with increased capital or skill-training workshops; however, the latest technological know-how and capital is not available to them. These countries often have to look to international organizations and donors for assistance.

### **6.2 Deficiencies in the Economic, Legal and Institutional Framework**

Most developing countries do not have fully functioning economic systems. There are parts of the economy which cannot be fully utilized to harness their full potential as the free market system, which these countries have implemented, does not work outside of theory due to the aforementioned lack of infrastructure and supervision. Cameroon, Pakistan and Palestine are countries which currently function with a weak macroeconomic environment. In Cameroon, poverty is at extremely high levels and no policies for alleviation of poverty are currently in place.

Due to a dearth of proper infrastructure, there is a lack of investors' interest in these areas and untapped resources which could potentially contribute to the economic growth are going to waste. Existing economic policies and reforms of the country also play a major part in exploiting resources, encouraging Foreign Direct Investment and Foreign Portfolio Investment.

The macroeconomic framework relies on a number of factors which measure GDP growth, the amount of cash inflows and outflows, the liquidity of the capital market and the overall income of a country, to name a few. The highest GDP per capita was that of \$42,680 and the lowest being in the \$1000-\$2000 range. A slow moving economy or negative economic growth rates result in investors, especially speculative ones, changing markets or delaying deals, in order to gauge future profits and the state of the stock exchange.

The legal framework of a CMI acts as its skeletal support; it needs to be complete and clear and accessible to all parties. However, in Iran, the Maldives, Pakistan and Palestine the legal framework was considered to be a major issue during development of CMI's. This inadequacy may be the result of a constantly changing political scenario, the unavailability of experts, a lack of supporting legal infrastructure in order to conjure up regulations for the capital markets or a combination of these elements.

The lack of primary elements such as property rights, contractual relationships, forms of incorporation, and rights and responsibilities of participants in the market undermine the ability of the market. Another function of the legal aspect is to clearly outline the activities of the investors' in all possible jurisdictions. The absence of these can be a major risk to future investments as well as maintaining current ones especially in the existence of a conglomerate international market i.e. other countries with more appealing capital markets and ideal conditions concerning integrity and transparency.

The institutional framework has a major influence on the state of the capital market, as it dictates how the market is to function by interacting with intermediaries that provide functions such as trading, investment management, financial advisory services as well as others. A dismissal of state-owned

regulations requires a substitution with new mandates, however if they are not created at the base level, it makes difficult for the rest of the structure to function past a rudimentary stage; not only affecting investor participation and confidence but that of financial intermediaries as well.

### **6.3 Investors and Market Participants**

The market consists mainly of investors and brokers; the interviewed countries seem short of both these assets, as the number of brokers in the capital markets of the surveyed jurisdictions seems almost insignificant when compared to the investors. The concentration of brokers to investors in Pakistan was recorded at over 600 investors to 1 broker, which is superior to the remaining group. However, the number of investors to total population in Pakistan accounts for only 0.15% of the population, which is an extremely low figure. The capital market infrastructure functions as one entity as each function of the market is highly inter-dependent on the other. To increase the number of market participants, these countries would have to take measures to increase the investors' confidence and boost their own capital market ratings in order to appeal to a larger section of the public, foreign as well as domestic.

Institutional investors are a greater commodity to have than retail investors in the world's financial markets, as they help increase liquidity and market stability as well as improve market psychology. Involvement of institutional investors in the capital market complements service standards, enhances efficiency and automatically increases market outreach. Attracting such investors must be a top priority during policy-making; and openness of the markets and their accessibility play a vital role in this regard. A lack of total investors in the market was a major impediment for Iran and Kuwait, both recording high numbers, while the problem was not as stark as compared to some of the others in Cameroon and Malaysia.

### **6.4 Access to Information**

There are a number of features in individual CMIs that require disclosure to the participants for efficient functionality. In the member states this information is either being shared through electronic means, physical notices or through mass media. The participants are provided with information on the procedures, rules in place as well as the costs and fees which could potentially be incurred, though Cameroon only informs the participants of the general procedures in place of those mentioned above.

When entering a market, an investor or contributor prefers to know the risks involved as well as his/her rights and obligations. Iran, along with Cameroon, does not make such disclosure to investors mandatory; though the latter does inform participants of the risks involved in entering the market. However, most institutions are moving towards transparency policies to increase ease of access and encourage external interest. Greater access to information and transparency in dealings boosts the stakeholders' confidence in the institution, thus ensuring future dealings and transactions as well as possible clients through the snowballing effect. In general access to information was not a major concern for the responding group as a whole.



## **6.5 Trading Platforms and Mechanisms**

Trading platforms and mechanisms, including exchanges, electronic trading venues, confirmation or matching platforms, and third-party service providers amongst others add to the efficiency of the capital market structure through providing a software that allows investors and traders to place trades and monitor accounts. None of the member countries have Trade Repositories at their disposal, aside from Turkey and the UAE whose stock exchange functions as one, although the availability of a separate repository can increase the efficiency of the market. In some cases trading platforms are not implemented over concerns of the stability of the financial system, which poses as friction for potential as well as current investors. Establishing sufficient trading platforms could lead to fewer short-term investments based on speculation which lead to fluctuations in the market and threaten the stability of the capital market.

The lack of technological skill available in many developing countries acts as a hindrance towards developing trading platforms. Electronic trading platforms available in many markets are designed to cater to the requirements of various types of investors and make it convenient for investors to trade, analyze and participate in the markets. This can significantly enhance participation within markets and is seen by many developed nations as a significant contributing factor in this regard.

### **Chapter 7: Conclusions and Recommendations**

A top priority among the OIC member states should be the development of their capital markets. Although the aim is the harmonization and integration of the market structure, each market has its own characteristics and needs to maintain the balance between financial stability and advancements in the field. The policymakers and regulators responsible for deciding the role the capital market in the country's economy as a whole, should consider every aspect affecting economic growth and development when making decisions which could affect it.

Using a top-down approach, the changes in policy should be implemented on a smaller scale and in phases, as frequent and hurried policy changes can lead to confusion and increased compliance costs for participants of the capital market. After observing the consequences of the implementation; modifying and refining the policy, it can be applied on a larger scale. At this stage, transparency is critical as it ensures trust and builds on the image of the capital market.

The recommendations presented in this section of the report cover a number of significant areas such as the gap between capacity and resources, a lack of investors, the macroeconomic environment, and the structural, legal and regulatory framework on which the capital market stands.

#### **A. Structural Framework**

##### **1. Market infrastructure institutions**

Most of the markets surveyed for the purpose of the report fulfill functions of several different capital market institutions without having separate institutions for each. OIC members should focus on developing different institutions to carry out the functions of depositories, clearing and settlement rather than keeping most of these functions within the role of the exchanges.

##### **2. Central Counterparties and Trade Repositories**

As witnessed within the survey not many jurisdictions currently include CCPs and TRs as part of their capital market infrastructure. However, best practices as suggested by IOSCO and the Financial Stability Board are focusing on developing separate institutions as a CCP or TR. Establishing CCPs will lead to a reduction in overall counterparty credit risk along with facilitating the regulator through providing greater transparency and easier supervision of risks. TRs on the other hand maintain a centralized electronic record of OTC derivatives transaction data. As TRs play a key role in increasing transparency in the OTC derivatives markets by improving the availability of data to authorities and the public, their establishment will aid in maintaining proper handling and use of data.

##### **3. Over-the-counter market**

OTC markets can be used to manage financial risks associated with volatility in interest rates, foreign exchange rates, equity and commodity prices. As there is no centralized exchange and little regulation, greater competition exists between different providers to attract the most traders and trading volume to their firm. Due to this transaction costs are normally lower in OTC markets when compared to similar products that trade on an exchange. However, regulators should focus on minimum entry capital for OTC markets as well as develop a framework encompassing investor protection measures due to relatively lenient regulatory measures.

#### 4. SME Board/Exchange

Regulators in collaboration with stock exchanges should work on introducing a Small and Medium Enterprises (SME) Exchange. The exchange can function as either a separate exchange or as a part of the existing exchanges in place. The exchange can provide an avenue where small and medium companies can raise money as it can become cumbersome for them to raise capital from banks due to their small size. This will generate greater activity within the markets and add to transparency and documentation within an economy.

#### 5. Demutualization

All jurisdictions amongst the OIC members should focus on the demutualization of exchanges. Demutualization leads to corporatization of exchanges in to public limited companies and brings in added benefits of improved governance, cost efficiency, enhancement of trading activity and through better access to economic and human capital.

### ***B. Legal and Regulatory Framework***

A well-established capital market must have legal protection of ownership and property rights. Its foundations should be based on clear rules and regulations, fairness as well as transparency in dealings and adequate enforcement.

Investors, brokers and market participants should feel comfortable and familiar with the regulatory regime and that is not possible without full disclosure/access to the regulatory framework, clarity regarding the extent of powers of the entities involved and continuous efforts for increased transparency in all spheres of capital market activities. Outlining the different rights and responsibilities of the various market participants is the first step to streamlining the entire system. Similarly, clear-cut laws are required for addressing issues related to property rights, insolvency and bankruptcy codes, non-fulfillment of contractual obligations, procedures for default and arbitration and so forth. There are of course capital markets which are functioning without these ideal conditions, however, with growing size and complexity their sustainability is bound to be challenged.

More specifically the legal and regulatory framework should at least account for the following:

1. Clearly defined capital market parameters with well-defined roles and responsibilities of the apex and frontline regulators

The legal framework needs to expressly define the capital market and all activities that would fall within its ambit to provide adequate regulatory cover to capital market activities. The law and where support is required the subsidiary legislation should be able to deliver requisite guidance to regulators, issuers, market intermediaries, investors and other market participants on any and all areas that require clarity. This would of course necessitate constant evolution of the regulatory regime. Regulators can therefore seek support from powers in the primary legislation enabling issuance of circulars, directives and guidelines. However, dedicated efforts towards proper dissemination, availability and record of such alternate routes that elucidate regulation of market activity would also become increasingly important.

2. Separate dedicated framework for market infrastructure institutions

While at the same time as providing guidance regarding the role of market regulators and self-regulatory organizations, it is essential that dedicated legislation should be available for each and every category of market infrastructure institution i.e. stock and commodity exchanges, depository company, clearing company and trade repositories. Legal frameworks may also need to provide dedicated frameworks for ready and futures exchanges where such segregation of exchange functions has been adopted. It needs to be considered that despite an overarching regulatory framework for all institutions, the unique role and customized set of activities that each market infrastructure institution provides needs to be catered for separately to avoid any regulatory gaps and risks. Such dedicated legislation would also lead to reduced regulatory overlaps and chances of misinterpretation of regulatory provisions.

3. Requirements for licensing/registration

In congruence with the above requirement of having dedicated frameworks for dealing with each type of market infrastructure institutions, the legal framework should adequately cover registration and licensing requirements for any activities associated with the capital markets. The onus of safeguarding public funds merits that all capital market institutions fulfill strict licensing/registration regimes. As we have seen, although these requirements can vary amongst jurisdictions and be further refined/customized by market regulators, some of the common considerations such as minimum capitalization levels, regulatory capacity, independence from the market participants, technological capabilities, how the organization aims to ensure investor protection and business continuity planning need to be borne in mind.

4. Protection of ownership and property rights

As has also been covered in earlier sections of the report, it is imperative that principles governing the ownership and property rights of firms, individuals, intermediaries and other market participants are explicitly defined. Guidance in the matter can be sought from various IOSCO and BIS recommendations

which emphasize the need for such rights to be expressly elucidated within the regulatory framework to cover overriding arrangements for cases of insolvency, procedures to be followed in cases of default and in other cases having high probability of contractual or regulatory obligations being evaded by market participants. For e.g. the CPSS - BIS and IOSCO Committee on Payment and Settlement Systems in its April 2012 report on Principles for Financial Market Infrastructures provides that *“An FMI should consider, in particular, the actions that would need to be taken in the event of a participant’s insolvency. A key question is whether transactions of an insolvent participant would be honoured as final, or could be considered void or voidable by liquidators and relevant authorities.”*<sup>7</sup>

### **C. Governance and Transparency**

There is a strong need for establishing high standards of governance across the capital markets and involving market participants to follow the best practices, in order to generate greater investor confidence. The following areas merit consideration for ensuring that governance and transparency standards are designed to fulfill international benchmarks:

#### **1. Ownership & Governance of Market Infrastructure Institutions**

There is continuous debate regarding the most appropriate ownership structures that should be allowed for market infrastructure institutions to function efficiently and effectively. Specifically with respect to ownership structures of exchanges, IOSCO in its report regarding exchange evolution provides that most developed countries *“have not placed restrictions on any specific type of ownership of exchanges. However, many have various powers in respect of controlling or influential shareholders, ranging from notification, to fit and proper approval requirements.”*<sup>8</sup>

In developing and frontier markets, this debate often focuses on how institutions and persons with requisite market knowledge and expertise can be engaged in controlling affairs of a market infrastructure institution without any conflict of interest. This problem, as has also been clarified earlier, can arise due to a limited pool of human capital with the requisite skills and knowledge. Lack of depth of the financial sector further compounds this problem. Governance and transparency norms dictate that whatever the model followed, it should give preference to managing any conflicts of interests.

In the absence of a “one size fit all” solution, institutions may consider adopting the concept of independent directors on the boards of the market infrastructure institutions; delineate the ownership structures to ensure independence of the Board, financial autonomy and operational freedom; ensure sufficient oversight to address any governance issues; and aim for a management that is not linked to market participants. Adoption of “Fit and Proper Criteria” for directors on the board of the market

---

<sup>7</sup> CPSS-Bank for International Settlements, OICV - IOSCO “Principles for Financial Market Infrastructures” April 2012

<sup>8</sup> Regulatory Issues arising from Exchange Evolution, Report of the Technical Committee of IOSCO, November 2006.

infrastructure institutions is just one example of how conflict of interest and independence issues can be addressed at the board level.

### 2. Role of demutualization in segregating commercial and regulatory functions

The shift from mutualized structures to corporatized and demutualized structures is a global norm which is internationally acclaimed for its benefits towards improved governance of exchanges. However, over time it has become evident that demutualization brings with it new challenges one of the foremost of which is creating a balance between the regulatory and commercial interests of an entity entrusted with safeguarding public money. Commercially motivated exchanges can start pursuing purely business interests while neglecting their regulatory roles, adopt unnecessarily stern regulatory stances for increasing regulatory income (which stifle market activity and development) or apply a discriminatory regulatory approach both in regulatory development and enforcement actions for profit incentive.

IOSCO while realizing these risks recommends that *“An important element in ensuring that an exchange’s regulatory responsibilities are not compromised by its commercial interests is the maintenance of organisational arrangements that place divisions between the commercial and regulatory functions.”*<sup>9</sup> This of course is the broader principle and should be applied in conjunction with the detailed debate and explanations by IOSCO in relation to the same.

### 3. Code of corporate governance

The importance of corporate governance lies in its contribution both to business prosperity and to accountability. Enhanced corporate governance standards are a major factor in making capital markets transparent, protecting rights of minority shareholders and attracting and retaining foreign investment. Governance standards should be dynamic and changing with the development of constantly evolving corporate sector and financial markets. This calls for a constant review of governance frameworks to keep pace with globally set benchmarks. With investors competing in the context of global markets, it is essential to exhibit the highest levels of governance and transparency to attract and retain investment.

As indicated in earlier sections of the report, OIC countries may consider harmonizing their differing code of corporate governance practices to avoid incomparable governance benchmarking by the investors amongst the OIC member jurisdictions. Needless to say that any OIC member jurisdictions without sufficient corporate governance arrangements should immediately take measures to devise and adopt minimum requirements of the code of corporate governance prior to embarking towards harmonization of the same with other OIC members.

### 4. Minimum disclosure requirements

---

<sup>9</sup> Ibid.

The Code of Corporate Governance prescribes various disclosure requirements. However, these requirements cannot be construed to be complete in the absence of the more fundamental requirements of full, timely and accurate disclosures of both financial and non-financial information. Disclosure requirements can extend from disclosures of voting decisions, change of control transactions, disclosures of accounting policies and standards to, in more developed markets, the disclosure of any information that may be material to investors' decision. While such disclosures benefit more organized development of the corporate sector and the capital markets, IOSCO in its methodology for "Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation" provides the following benefits that a comprehensive disclosure regime may have for the investors:

*"Full disclosure of information material to investors' decisions is the most important means for ensuring investor protection. Investors are, thereby, better able to assess the potential risks and rewards of their investments and, thus, to protect their own interests. As key components of disclosure requirements, accounting and auditing standards should be in place and they should be of a high and internationally acceptable quality."*<sup>10</sup>

Member jurisdictions need to review their frameworks to assess the level of development and quality of their disclosure standards and initiate exercises to incorporate those measures which enhance disclosure requirements to bring the same on par with international benchmarks. During the exercise, jurisdictions may also heed IOSCO's advice that safeguards must be in place to protect any such information from inappropriate use or disclosure.<sup>11</sup>

### **D. Risk Management**

Global banking and financial institutions have greatly improved risk management practices through representation in even the comparatively less developed markets, by introducing latest technologies, standards and practices. However, for the purposes of this mandate risk management cannot only be limited to market intermediaries and specific institutions and countries should be focusing on assessing sufficiency of the entire risk management framework more holistically, from the perspective of the entire capital markets, the capital market infrastructure institutions, the market intermediaries and the investors. Some pressing areas which regulators and market participants need to consider for guaranteeing basic sufficiency of their risk management regimes are as follows:

#### 1. Risk-based Capital Adequacy Regime

As detailed in earlier sections of this report, capital adequacy is at the core of addressing credit risk, liquidity risk and systemic risks associated with capital market activities. Capital adequacy regimes should be closely linked to the levels of risk that each market institution is facing. Clearing houses when progressing to the model of central counterparties would for instance, in the absence of sufficient pools

---

<sup>10</sup> IOSCO Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation, September 2011.

<sup>11</sup> Ibid.

of guarantee funds for ensuring settlement, require far better capitalization as compared to when they were functioning in their previous structure. Capital adequacy regimes also need to evaluate what qualifies as sufficient capital and the levels of capitalization that can be safely classified as sufficient.

Specifically for market intermediaries, guidance can be sought from the IOSCO report titled “Guidance to Emerging Market Regulators Regarding Capital Adequacy Requirements for Financial Intermediaries” which very aptly clarifies that *“the purpose of capital adequacy, as a general guideline, is that capital must be sufficient to protect a financial organization’s customers and counterparties from various risks, like; market risk, settlement/counterparty risk, credit risk, operational risk, liquidity risks etc. Additionally, an efficient capital adequacy structure can also send timely warning signals to intermediaries to re-focus on their risk management, as a decline in the capital base can expose the intermediary to significantly higher levels of risks.”*<sup>12</sup>

The report also provides that *“in order to ensure efficient functioning of stock markets it is imperative for all participants to have confidence in each other’s stability and the ability to effectively manage risk. The inability of any one intermediary to honor his commitment may call into question the financial solvency of other market intermediaries, leading to serious market disruption and decline in investor confidence.”*<sup>13</sup> It can be seen that these principles for market intermediaries can apply to the entire market and all institutions comprising its infrastructure.

The capital adequacy regimes for market intermediaries should be based on the concept of liquid capital and valuation methodologies to assess more accurate capitalization levels. Jurisdictions may consider following models which segregate trading members and clearing members through capital adequacy requirements and assign additional capitalization levels based on custody of investor assets with the intermediaries. Intermediaries participating in different market segments can also be subjected to varying requirements based on the degree of risk attributable to each segment. Most importantly and as highlighted earlier, a uniform set of standards needs to be developed for calculating capital adequacy requirements as opposed to varying methodologies adopted by the different OIC member jurisdictions.

## 2. Margins and Valuation of Collaterals

As also stated in earlier parts of the report, margin requirements should be appropriately linked with the exposure taken by the investors. The BIS and IOSCO Committee on Payment and Settlement Systems recommendations should be considered that *“A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.”*<sup>14</sup>

---

<sup>12</sup> IOSCO report on Guidance to Emerging Market Regulators Regarding Capital Adequacy Requirements for Financial Intermediaries, December 2006.

<sup>13</sup> Ibid.

<sup>14</sup> CPSS-Bank for International Settlements, OICV - IOSCO “Principles for Financial Market Infrastructures” April 2012.



Risk based margin regimes necessitate that jurisdictions migrate from fixed pre-trade margining systems to VaR based pre-trade margins which would more account for risk of a particular security. Post trade margining systems also need to move from fixed percentage mechanisms to VaR based margin regimes. In case of jurisdictions with more developed derivatives markets comprising high volumes the aim should be risk assessment and margin collection based on the entire portfolio through margining systems such as SPAN. Risk management models, in periods of market activity showing increased levels of risk, should allow for imposition of additional margins by the regulators. The margining systems also need to be closely linked to the capital adequacy of the market intermediaries and the capacity of the individual investors.

The BIS and IOSCO Committee on Payment and Settlement Systems also provides valuable recommendations in relation to valuation of collateral. It is recommended that *“An FMI that requires collateral to manage its or its participants’ credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.”* Some key considerations provided in the report which need to be assessed include:

1. *An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.*
2. *An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.*
3. *In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.*
4. *An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.<sup>15</sup>*

### 3. Marked to Market Calculations

Collection and payment of mark-to-market losses/gains results in reducing exposure and having to account for only the residual risk in the event that one or more participant defaults.<sup>16</sup> The practice involves revaluing securities and financial instruments by referencing the same to prevailing market prices. While most of the surveyed jurisdictions have MtM arrangements in place, it is recommended that all OIC member jurisdictions should be aiming to adopt such basic risk mitigating arrangements to appeal to a larger and more globally diverse investor base.

## **E. Investor Protection**

### 1. Protection of client assets

---

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

In almost any institution that deals with clients, protection of their assets are given the highest regard, because the relationship with the client is based on trust. Similarly, the integrity of the capital market depends on the safety and security of its clients' assets. If investors feel their assets are protected, they feel confident enough to invest increasingly large amounts of capital into the market, as they are sure of profitable returns. Most jurisdictions have not defined client assets, thus as a starting point a definition for the same needs to be created within a jurisdiction. Proper client identification measures and maintenance of securities is critical to ensure that the interest of the ultimate beneficial owners is duly protected. In this regard, it is essential to prevent any misuse on part of the intermediary operating the account such as the broker, to ensure that the assets of the intermediary are segregated from their clients. This segregation should be clearly defined in the account structure that exists with the CSD. Proper identification and documentation to distinguish the ownerships should be in place, including Unique Identification Numbers. The confidence boost will not only be apparent in the investors' behavior but will reflect in the business of the capital market itself through a greater clientele and increased investment within the markets.

### 2. Investor protection funds

Allowing the constituents of the capital market to deal in protection funds lowers the risk involved in investment. Therefore, to protect investors from default or bankruptcy of the intermediary, jurisdictions should have investor protection funds in place which compensate investors in such cases. Investor protection funds thus promote investor confidence by reassuring them that their interests are being safeguarded against market malpractices and that recourse against such malpractices is available.

### 3. Complaint Management Systems

To foster a healthy macroeconomic environment for the capital market, the regulatory bodies should be aware that policy-making is a two-way street. Investors should be encouraged to provide feedback and offer suggestions on any and every change that takes place in the capital market. Regulators and SRO's shall ensure that centralized systems for handling complaints and queries received through various mediums such as email, telephone or letters which will help in increased efficiency through reduced turnaround time are in place within the jurisdiction.

### 4. Investor Protection Corporations

Regulators should look to set up corporations for the sole purpose of insuring investors' securities in the case of bankruptcy, or any other financial hindrances. Such corporations act as the first line of defense in the event a brokerage firm fails owing customer's cash and securities that are missing from customer accounts through attempting to compensate investors by providing them back with cash or securities within certain limits. A safety net like this grants investors the confidence to divest large sums of money into investments within the capital markets.

### 5. Arbitration and Dispute Resolution Mechanisms

Alternate Dispute Resolution aims to settle disputes informally with the help of a neutral third party to reach a settlement between the disputants. The mediation process is quick, effective, confidential and inexpensive and aims to produce long-term solutions and focus on strengthening relationships that help individuals address or even avoid conflict in the future. Regulators may also choose to provide a mechanism for dispute resolution as an option available not only to parties whose cases are pending before a court/ judicial forum, but also to disputants who have as yet not taken any recourse to formal judicial or quasi-judicial proceedings.

### ***F. Increasing Market Outreach***

#### **1. Retail and Institutional Investor Base**

An appropriate infrastructure for the capital markets needs to be supported by a developed retail and institutional investor base. Individual investors and those with the backing of an institution have different aims in mind, and thus are susceptible to different types of information. Where a retail investor is interested in the past and projected future profits of an individual corporation, the institutional investor is interested in the success of the capital market as a whole, its future and current projects, the number of investors etc. These differences necessitate the regulatory bodies employ diverse means towards targeting both kinds of investors.

Regulators should look towards developing policies which focus on educating retail investors to increase their participation while also focusing on significant macroeconomic targets such as fiscal incentives, enhanced product offering and distribution channels as well as a balanced regulatory framework in an attempt to increase participation by institutional investors.

#### **2. Investor education and awareness**

The education of investors is of primary importance not just for existing investors but also for potential investors. The idea is to inform and educate consumers of financial products to make effective choices as well as attract new consumers of financial products and services. Investors should feel comfortable with the system, and that is not possible without full disclosure of how the capital market functions, the extent of regulatory and legal power bestowed on the regulator and other intermediaries and complete transparency in its dealings with the participants of the capital market. Outlining the benefits of various financial products within the capital markets, explaining the regulatory framework in place, and highlighting different rights and responsibilities of the participants leads to a smoother, more effective system.

To reach this state, the regulatory and policy-making bodies need to promote the activities and limitations of the investors in all jurisdictions, through a variety of means such as pamphlets, advertising space in newspapers, through the webpage of the regulatory body and other SRO's. A series of conferences should also be arranged, focusing on different segments of the market, in which officials from regulatory bodies as well as investors, brokers and other stakeholders participate.

#### **3. Increasing distribution channels and promoting listing of companies**

The capital market regulators should promote participation in the distribution channels as these at present in most jurisdictions are dominated by banks. Diversified channels of distribution such as securities firms and financial advisers are necessary in order to provide healthy competition, ensuring a good lower cost and sustained standards.

The number of registered companies can be increased by decreasing the number of compliance costs and taxes incurred while obtaining a license. Fiscal incentives such as a lower tax rate should be applicable to companies that apply for listing through an Initial Public Offering. Further, by lowering and simplifying the number of procedures required for registering a company, incentives are provided to several companies for approaching the capital markets as an alternate form for financing. However, a balance between regulation and de-regulation needs to be kept by the regulator.

Listing on capital markets however is mostly applicable to companies with large capital while most companies within almost all jurisdictions are made up of small and medium enterprises. As described earlier, formation of an SME Board or a separate SME exchange should be given importance by regulators in a bid to move away from banking centric financial sectors and encourage alternate forms of investment.

#### 4. Role of market intermediaries and SROs in increasing outreach

Regulatory bodies are believed to be exclusive in their duty to preach the rules and policies governing the capital market. That is not the case, as the main regulatory bodies merely supervise the distribution of information; deciding on who the information is given to and how much. The role of the SROs and the market intermediaries is to spread the appropriate information to those who require it. The information given to the SROs is both accurate and sensitive in nature; they are trusted to work towards the benefit of the entire market and issue the data as they see fit.

Market intermediaries have become an essential part of the diffusing data cycle. They interact with people at various levels of the system, a circumstance the regulatory bodies should take full advantage of. Providing an incentive such as a decreased income tax, or an easing on compliance costs, market intermediaries can be persuaded to house pamphlets and other sources of information, as well as direct interested parties in acquiring more information online or directly from the regulatory bodies.

### ***G. Product and System Development Initiatives***

#### 1. New products adapted to local market conditions

Regulators should from time to time introduce new products within their markets to suit the profile of different investors and market conditions within their jurisdictions. New equity as well as debt products should be brought in to the market from time to time. Regulations for such products need to be created only after taking in to account the demand for such products within a particular jurisdiction. In addition government securities which are mostly traded in the open market can be brought to the capital markets to provide a single trading platform for both corporate and government debt.

Properly developed and active derivatives trading system in places can provide sufficient liquidity so that inherent risks in a market can be curbed. This would also go a long way towards attracting foreign investments, and offer local investors the opportunity to take positions on their short term and long term views on the market.

Further, markets for commodities can be further developed and regulators should attempt to bring as many products to the exchange for more efficient price discovery and transparency which can be traded not just in the futures markets but also in spot markets. For OIC members, it is essential to develop a well-functioning Islamic Capital Market due to the high demand of such products within OIC member states.

### 2. Automated mechanisms

Automation and trading speed are increasingly important aspects of competition among financial markets. There is a need to automate capital market mechanisms such that the production and processing of every kind of trade and relationship document between an investor and intermediary as well as between various infrastructure institutions is managed electronically. By doing so, this enables accelerated execution and timely confirmations, and simplifies reporting procedures enabling obligations to be met in a timely manner. Automation procedures within SRO's and regulators should also target disaster recovery plans, including backup systems of information.

### 3. Monitoring and surveillance software

Due to the changing nature of markets and large scale frauds, regulators need flexible, robust technology to keep pace with exploding volumes of trading data, ongoing market structure changes, enhanced market complexity and with traders themselves. To develop an efficient, effective and transparent stock market and to inculcate integrity and fairness in the trading activity, regulators need to work upon a comprehensive strategy to identify any abusive, manipulative and irregular trading practices and take subsequent measures.

In order to maintain confidence within the markets, regulators and SRO's should have surveillance software's in place, which along with the provision of real-time and historical data also facilitate the detection of market manipulation, price distortion and other market abusive activities such as front running and insider trading. Further, surveillance systems must incorporate robust monitoring and analysis tools and provide clear visualizations to simplify the monitoring process and to provide clear-cut guidance to potential abuse scenarios. A single consolidated view of trading data across any number of markets and asset classes is essential.

## ***H. Capacity Building and International Cooperation and Collaboration***

### 1. Capacity Building

The foundation of a burgeoning capital market is controlled by the people working within it. The regulator and other intermediaries must continue to build on efforts to strengthen capacity. Steps need

to be taken to further enhance the internal talent pool available within the market, and to attract new talent with the relevant skills, aptitude and experience. As the role of regulators transforms, becoming more sophisticated and complex in line with the markets being overseen, it is of utmost importance that the regulator itself is committed towards upgrading its human resource and augmenting its infrastructure. In order for the capital market to work towards its full capacity, it requires improving infrastructure and latest technological advancements in order to compete globally.

In addition establishing standards of ethical conduct for the market participants through certifications is essential for the well-functioning of the capital markets. A certification institute for the capital markets focusing on the development of regulations to train and certify market intermediaries, with an eventual aim to mandate such programmes for all persons providing services in the capital markets should be created.

### 2. International Cooperation and Contribution

Regulators should aim towards continuous commitment and strong contributions to global regulatory policy-making efforts and initiatives. This process has become even more critical given the growing role of Asia in the international financial system, and the need for a more balanced debate on international regulatory reforms to ensure that the outcomes are inclusive and relevant. Regulators and CMIs should closely follow international regulatory developments, and take necessary steps to keep the organization and its policymaking efforts relevant and aligned with the best global practices such as following standards created at COMCEC and IOSCO forums.

Furthermore, strong cross-border collaboration is another important aspect which could potentially provide tangible benefits to industry development. Regulators should focus on entering in to arrangements international counterparts, focusing on areas such as cross border supervision as well as technical assistance, paving the way for learning and understanding from counterpart regulators which have or are facing the same issues towards developing an appropriate infrastructure for capital markets. Additionally, cross border collaboration can also lead to an expansion of intermediaries' activities across financial markets along with other developments. These arrangements are also critical to ensure appropriate investor protection and effective oversight of related intermediaries and their cross-border activities.

Summary of Recommendations

**Recommendations**

<b>A. Structural Framework</b>	<ol style="list-style-type: none"><li>1. Market infrastructure institutions</li><li>2. Central Counterparties and Trade Repositories</li><li>3. Over-the-counter market</li><li>4. SME Board/Exchange</li><li>5. Demutualization</li></ol>
<b>B. Legal and Regulatory Framework</b>	<ol style="list-style-type: none"><li>1. Clearly defined capital market parameters with well-defined roles and responsibilities of the apex and frontline regulators</li><li>2. Separate dedicated framework for market infrastructure institutions</li><li>3. Requirements for licensing/registration</li><li>4. Protection of ownership and property rights</li></ol>
<b>C. Governance and Transparency</b>	<ol style="list-style-type: none"><li>1. Ownership &amp; Governance of Market Infrastructure Institutions</li><li>2. Role of demutualization in segregating commercial and regulatory functions</li><li>3. Code of corporate governance</li><li>4. Minimum disclosure requirements</li></ol>
<b>D. Risk Management</b>	<ol style="list-style-type: none"><li>1. Risk-based Capital Adequacy Regime</li><li>2. Margins and Valuation of Collaterals</li><li>3. Marked to Market Calculations</li></ol>

**E. Investor Protection**

- 1. Protection of client assets**
- 2. Investor protection funds**
- 3. Complaint Management Systems**
- 4. Investor Protection Corporations**
- 5. Arbitration and Dispute Resolution Mechanisms**

**F. Increasing Market Outreach**

- 1. Retail and Institutional Investor Base**
- 2. Investor education and awareness**
- 3. Increasing distribution channels and promoting listing of companies**
- 4. Role of market intermediaries and SROs in increasing outreach**

**G. Product and System Development Initiatives**

- 1. New products adapted to local market conditions**
- 2. Automated mechanisms**
- 3. Monitoring and surveillance software**

**H. Capacity Building and International Cooperation and Collaboration**

- 1. Capacity Building**
- 2. International Cooperation and Contribution**



References:

- CPSS-Bank for International Settlements, OICV - IOSCO “Principles for Financial Market Infrastructures” April 2012
- OECD project on Long Term Investment ([www.oecd.org/finance/lti](http://www.oecd.org/finance/lti)), identifying a set of criteria for long-term investment by institutional investors
- “Development and Regulation of Institutional Investors in Emerging Markets” – IOSCO, June 2012
- <http://www.world-exchanges.org/insight/views/role-central-counterparties-financial-crisis-recovery>
- “THE IMPORTANCE OF LEGAL INFRASTRUCTURE FOR REGULATION (AND DEREGULATION) IN DEVELOPING COUNTRIES” - Anthony Ogus, June 2004
- “Development of Capital Markets and its Institutions in Estonia” - Alar Kein
- “The Regulation of Capital Markets, Market Manipulation and Insider Trading” - Michael J. Watson Q.C
- The Capital Markets of Emerging Europe: Institutions, Instruments and Investors - Silvia Iorgova and Li Lian Ong, WP/08/103
- IOSCO Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation, September 2011.
- “Regulatory Issues arising from Exchange Evolution”, Report of the Technical Committee of IOSCO, November 2006.
- IOSCO report on “Guidance to Emerging Market Regulators Regarding Capital Adequacy Requirements for Financial Intermediaries”, December 2006.

**Annex - A**

**COMCEC Task Force on Market Development**

**Terms of Reference**

**Development of Capital Market Infrastructures**

**Background**

Market infrastructure refers to institutions and mechanisms that facilitate the recording, clearing, and settlement of transactions and support the trading function by disseminating prices, bringing buyers and sellers together, ensuring that financial obligations are efficiently discharged, and providing the regulatory environment within which all participants operate. Capital market infrastructures can strengthen the markets they serve and play a critical role in fostering financial stability; however, if not properly managed, they can pose significant risks to the financial system and be a potential source of contagion, particularly in periods of market stress.

The quality of the capital market infrastructure plays a crucial role in the ability of any market to attract international investors. If risks or costs are high, investors will be deterred, liquidity will be lost, and the market will not develop as rapidly as it could. The presence of a Central Counter Party (CCP) reduces risks for investors. A Central Securities Depository (CSD) on the other hand amongst other services offers delivery of securities against payment of cash by investors, hence reducing both costs and risks for investors. Therefore, it is in the interests of both local market participants looking to attract international capital, and international investors attracted to local market investment opportunities, that the market infrastructure in place operates to international standards.

The capital market development in many OIC countries is being hampered by lack of investor protection and transparent securities trading as well as due to inadequately developed market infrastructure. OIC jurisdictions need to implement internationally recognized regulatory standards in a manner that serves the needs of their investors and market structure. In this regard, Implementation of global standards for market infrastructures is essential in enhancing safety and efficiency in payment, clearing, and settlement arrangements, and more broadly, to limit systemic risk and foster transparency and financial stability.

**Objectives**

Smooth functioning of securities market infrastructure is vital for the proper functioning of the market, economies and the stability of financial systems. In this context, the COMCEC CMRF's objective for the mandate to provide guidance to OIC capital market regulators for the development of market infrastructure is to;

- iv.) ensure that the design and operations of capital market infrastructure in the member jurisdictions are sound, safe, and efficient,
- v.) promote efficiency and competition in the capital markets that would reduce the transaction costs, and
- vi.) ensure market fairness, i.e., all investors have a reasonable opportunity to trade at the best price available for their transaction size.

These objectives foster creation of an integrated securities market infrastructure for the OIC securities market. The ultimate goal is that investors within the OIC should face similar costs and conditions whether they are settling a domestic trade transaction or an OIC wide trade transaction.

Keeping in view the objectives mentioned above, the emphasis of the mandate will be:

- (1) to assist the members of the COMCEC Capital Markets Regulators Forum understand different practices and regulations concerning capital market infrastructures in place in member jurisdictions;
- (2) to identify useful regulatory elements that could be adopted by members, that may intend to improve their regulatory frameworks and infrastructure in the capital markets; and
- (3) to develop recommendations or best practices for appropriate infrastructure development that would lead to enhanced investor protection, reduced bottlenecks and better functioning of the capital markets as a whole.

The focus will be on development of a harmonized regulatory framework for COMCEC member countries which will facilitate regional financial integration and lead to broadening and deepening of capital markets in COMCEC member states.

### **Scope of Work**

The work will primarily focus on two different aspects of developing an appropriate capital market infrastructure. The first aspect would be to highlight different market infrastructure institutions such as exchanges (both exchange trading and Over the Counter), depositories, clearing and settlement institutions that exist in COMCEC member states and the linkages between these institutions which make the capital markets function in an efficient and orderly manner. Furthermore, the study will also focus upon ownership and governance structures of these institutions.

The second aspect will assess how the COMCEC member regulators have worked to develop solutions, from more pre- and post-transaction transparency, to central clearing and greater use of electronic platforms for transaction execution. Here the aim would also be to map prevailing market infrastructure in OIC jurisdictions with global regulatory standards.

The following issues will be studied in detail by the task force:

- Different capital market institutions that exist in COMCEC member states and role of each institution in the overall capital market framework
- Ownership structures and governance of capital market infrastructure institutions
- Regulatory frameworks providing pre conditions of securities markets institutions including bifurcation of regulatory responsibilities between the apex regulator and the self-regulatory capital market infrastructure institutions
- Internal controls in place within these institutions
- Level of autonomy the institutions enjoy
- Investor Protection measures in place generally and in case of insolvency of the institutions
- development of uniform model standards for the capital market institutions of COMEC members related to market operations including trading platforms, risk management, market surveillance, market integrity and enforcement

- Problems encountered within the current systems
- Measures to make enhanced use of technology for greater transparency and lower transaction costs
- Recommendations or guidelines on development of capital market infrastructures for COMCEC member jurisdictions

**Intended Approach**

To carry out the mandate, the ToR of the mandate will be shared with all members and the project team of approximately 3 to 4 COMCEC members will be formed through voluntary participation. The team will be led by the Chair of the Task Force and supported by the Vice-Chair on all deliverables. All coordination aspects of the task force will be managed by the Chair of the Task Force with the assistance of the Capital Market Regulatory Forum Secretariat.

A survey questionnaire will be created by the task force. After analyzing the information provided by the members responding to the survey, the task force will produce a comprehensive report providing analysis and, as appropriate, recommendations for developing an appropriate capital market infrastructure.

**Timeline**

<b>Deliverables</b>	<b>Date</b>	<b>Responsibility</b>
<b>Development and Approval of Terms of Reference for the mandate</b>	<b>4<sup>th</sup> week January 2013</b>	<b>SEC Pakistan</b>
<b>Formulating a Working Group from member states to work on the mandate</b>	<b>1<sup>st</sup> Week February 2013</b>	
<b>Development of Survey Questionnaire</b>	<b>February 3<sup>rd</sup> Week 2013</b>	<b>Working Group Members</b>
<b>Deadlines for responses to the Survey Questionnaire</b>	<b>March 3<sup>rd</sup> Week 2013</b>	
<b>Analysis of responses</b>	<b>March – April 2013</b>	<b>Working Group members</b>
<b>Finalization of Report</b>	<b>April – May 2013</b>	<b>SEC Pakistan and SEO Iran</b>
<b>Conference for member jurisdictions and 2<sup>nd</sup> meeting of the taskforce (approval of final report)</b>	<b>End May 2013</b>	
<b>Creating database for researchers</b>	<b>June 2013</b>	
<b>2<sup>nd</sup> Task Force Meeting, Evaluation of the Output (Report &amp; Database)</b>	<b>September, 2013</b>	<b>COMCEC CMR Forum Secretariat</b>
<b>Discussion on the next steps in accordance with the findings of the 2013 work</b>		<b>SEC Pakistan and SEO Iran</b>

Annexure – B



STANDING COMMITTEE FOR ECONOMIC AND COMMERCIAL  
OPERATION (COMCEC)

CAPITAL MARKET  
REGULATORS FORUM

Market Development Task Force

SURVEY QUESTIONNAIRE

Development of Capital Market Infrastructures

***Prepared by:***

<b><i>Chair</i></b>	<b><i>Securities and Exchange Commission Pakistan</i></b>
<b><i>Vice-Chair</i></b>	<b><i>Securities and Exchange Organization Iran</i></b>

Country:

*Name of the Authority:*

*Name of contact person:*

*Phone number:*

*Email address:* Email:

## **INTRODUCTION AND BACKGROUND**

As Chair of the Task Force, Securities and Exchange Commission of Pakistan in co-operation with Task Force Vice-Chair, Securities & Exchanges Organization of Iran and the CMR Forum Secretariat, Capital Markets Board of Turkey aims to support the capital markets of the COMCEC CMR Forum members to operate effectively for the best interests of investors and market participants. The Task Force recognizes the heterogeneous nature of capital markets conditions in OIC local capital markets and agrees that OIC markets integration into the world financial system entail establishing an effective legal system and robust domestic market infrastructure that conform to international standards and best practices

### **Background**

Market infrastructure refers to institutions and mechanisms that facilitate recording, clearing, and settlement of transactions and support the trading function by disseminating prices, bringing buyers and sellers together, ensuring that financial obligations are efficiently discharged, and providing the regulatory environment within which all participants operate. Capital market infrastructures can strengthen the markets they serve and play a critical role in fostering financial stability; however, if not properly managed, they can pose significant risks to the financial system and be a potential source of contagion, particularly in periods of market stress.

The capital market development in many OIC countries is being hampered by lack of investor protection and transparent securities trading as well as due to inadequately developed market infrastructure. OIC jurisdictions need to implement internationally recognized regulatory standards in a manner that serves the needs of their investors and market structure. In this regard, Implementation of global standards for market infrastructures is essential in enhancing safety and efficiency in payment, clearing, and settlement arrangements, and more broadly, to limit systemic risk and foster transparency and financial stability.

### **Objectives**

Smooth functioning of securities market infrastructure is vital for the proper functioning of the market, economies and the stability of financial systems. In this context, the COMCEC CMRF's objective for the mandate to provide guidance to OIC capital market regulators for the development of market infrastructure is to;

- i. ensure that the design and operations of capital market infrastructure in the member jurisdictions are sound, safe, and efficient,
- ii. promote efficiency and competition in the capital markets that would reduce the transaction costs, and
- iii. ensure market fairness, i.e., all investors have a reasonable opportunity to trade at the best price available for their transaction size.

These objectives foster creation of an integrated securities market infrastructure for the OIC securities market. The ultimate goal is that investors within the OIC should face similar costs and conditions whether they are settling a domestic trade transaction or an OIC wide trade transaction.

### **Scope of Questionnaire**

The questionnaire primarily focuses on two following areas for developing an appropriate capital market infrastructure:

- **Existing capital markets in OIC member jurisdiction**
- **Responsibilities of market regulators, and other relevant authorities for capital market infrastructures (CMI)**
- **Existing capital market infrastructure in place in OIC member countries**
  - **Structure**
  - **Risk management, Settlement and Default management**
  - **Central securities depositories and settlement systems**
  - **Access to CMI, system Efficiency and effectiveness and Transparency**
- **Identification of issues in infrastructure development**
  - **Gaps in capacity and resources**
  - **Deficiencies in the legal, institutional and risk management framework**

## **IMPORTANT DEFINITIONS OF TERMS & EXPRESSIONS**

### **Capital Market Infrastructure (CMI)**

CMI is defined as a multilateral system among participating institutions, including the operator of the system, used for the purposes of clearing, settling, or recording securities, derivatives, or other financial transactions.

### **Central securities depositories**

Central securities depository is the capital markets institution that provides securities accounts, central safekeeping services, and asset services, which may include the administration of corporate actions and redemptions.

### **Securities settlement systems**

Securities settlement system enables securities to be transferred and settled by book entry according to a set of predetermined multilateral rules. Such systems allow transfers of securities either free of payment or against payment.

### **Central counterparties**

A central counterparty interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensuring the performance of open contracts.

### **Trade repositories**

A trade repository is an entity that maintains a centralized electronic record (database) of transaction data.



## Questions for COMCEC Questionnaire

### A -Existence of Capital Markets and Regulatory Structure

A1.Do Capital markets exist in your jurisdiction?

Yes            No

A2.Do you have a clearly defined mandate as a regulator? Explain

A3.Please explain the enforcement powers you have over capital markets in your jurisdiction?

A4.Do you have legal independence as a regulator?

Yes            No

A5.What level of autonomy does the authority responsible for securities regulation have in relation to framing of securities regulation?

- a. Full Autonomy
- b. Partial Autonomy
- c. No Autonomy
- d. Other\_\_\_\_\_

A6.How is the authority responsible for securities regulation governed?

- a. Board
- b. Commission
- c. Commission + Board
- d. Managerial Structure
- e. Government
- f. Other\_\_\_\_\_

### B. Macroeconomic and Capital Market Indicators

B1. Key macroeconomic indicators in your jurisdiction

GDP	
Population	
GDP per capita	
Literacy Level	

B2. Capital Market Indicators (million US\$ where applicable)

Total Market Capitalization	
Total Market Capitalization as % of GDP	
Annual Stock Trading Volume	

## Development of Capital Market Infrastructures

Return of the Main Index (3 year average)	
Number of Listed Companies	
Number of Registered Brokers	
Total Number of Investors in the capital markets	

### B3. Do the Following Institutional Investors Exist in your Jurisdiction?

Securities Companies	Yes	No
Mutual Funds	Yes	No
Insurance Companies	Yes	No
Pension Funds	Yes	No
Hedge Funds	Yes	No
Private Equity Funds	Yes	No
Endowment Funds	Yes	No
Other		

## C. Structure of the Capital Market Infrastructure in Place

### C1. Is there a definition for a Capital Market Infrastructure Institution in your jurisdiction

- a. Yes
- b. No

If yes, please provide the definition

### C2. What infrastructure institutions are in place in your jurisdiction

Stock Exchanges	Yes	No
Central Securities Depositories	Yes	No
Clearing Companies	Yes	No
Settlement Companies	Yes	No
Central Counterparty	Yes	No
Trade Repositories	Yes	No

### C3. Who is responsible for regulation and supervision of capital market infrastructure institutions in your jurisdiction?

- a. Separate Securities Regulator
- b. Central Bank
- c. Government Institution
- d. Other

### C4. Is there a separate exchange for Commodities within your jurisdiction?

- a. Yes                      b. No

**C5. Is there a separate Clearing and Settlement institution in your jurisdiction?**

- a. Yes                      b. No

**C6. Is there separate clearing for commodity exchange transactions?**

- a. Yes                      b. No

**C7. If answer to the above is no, which entity is responsible for performing Clearing and Settlement functions in your jurisdiction?**

- a. Stock Exchange
- b. Central Counterparty
- c. Securities Depository(ies)
- d. Clearing House/Clearing Company
- e. Other, please specify \_\_\_\_\_

**C8. Is there a separate Central Securities Depository (ies) in your jurisdiction?**

- a. Yes                      b. No

**C9. If answer to the above is no, which entity is responsible for performing depository functions in your jurisdiction?**

- a. Stock Exchange
- b. Market Intermediary
- c. Securities Depository(ies)
- d. Clearing House/Clearing Company
- e. Other, please specify \_\_\_\_\_

**C10. Is it mandatory for Market Participants to be registered in your jurisdiction?**

- a. Yes                      b. No

**C11. Is certification of Market Participants mandatory in your jurisdiction?**

## **D. Cooperation**

**D1. What is the frequency of cooperation/coordination pertaining to information sharing amongst infrastructure institutions?**

- (a) Daily
- (b) Weekly
- (c) Monthly

- (d) Quarterly
- (e) Annually
- (f) Other \_\_\_\_\_

**D2. Does the level of cooperation between financial market regulators / stakeholders address the following? If Yes, Please explain briefly**

Emerging risks to the capital markets	Yes	No
Systemic risks caused by the capital markets	Yes	No

**D3. Is there a process of regulatory integration with international best practices on regulations or developments of systems/processes?**

Yes No

### **E. Regulation and Supervision of Capital Market Infrastructures**

**E1. Are there clear and separate regulations in place for establishment and operations of infrastructure institutions**

Stock Exchanges	Yes	No
Central Securities Depositories	Yes	No
Clearing Companies	Yes	No
Settlement Companies	Yes	No
Central Counterparty	Yes	No
Trade Repositories	Yes	No

**E2. Is legislation for operation and conduct of the following activities in place in your jurisdiction?**

Stock Exchanges	Yes	No
Central Securities Depositories	Yes	No
Clearing Companies	Yes	No
Settlement Companies	Yes	No
Brokers	Yes	No

**E3. What regulatory powers do Self-Regulatory Organizations have in your jurisdiction?**

- (a) Full regulatory powers
- (b) Approval of main financial sector regulator required
- (c) No regulatory powers only consultative
- (d) Other \_\_\_\_\_

**E4. Is/Are the stock exchange(s) in your jurisdiction demutualized?**

Yes No

**E5. What is the ownership structure of all infrastructure institutions?**

Institution	Government	Public	Private
Stock Exchanges			
Central Securities Depositories			
Clearing Companies			
Settlement Companies			
Central Counterparty			
Trade Repositories			

**E6. How are infrastructure institutions governed in your jurisdiction?**

- (a) Board
- (b) Management
- (c) Board + Management
- (d) Other \_\_\_\_\_

**E7. What are the numbers of Independent directors on the Board of infrastructure Institutions?**

Institution	Independent Directors
Stock Exchanges	
Central Securities Depositories	
Clearing Companies	
Settlement Companies	
Central Counterparty	
Trade Repositories	

**E8. Does the regulatory framework in your jurisdiction address or in process of the following: Explain briefly?**

- (a) Control over securities markets and its participants to ensure public confidence?  
Yes No
- (b) Investor Protection (prevention from fraud and manipulation)?  
Yes No
- (c) Prevention of failures in the market?  
Yes No

**E9. Is there a Code of Corporate Governance for Listed Companies in your jurisdiction?**

- a .Yes
- b. No

E10. If the answer to the above is yes, who enforces the Code?

- (a) Securities Regulator
- (b) Stock Exchange
- (c) Other \_\_\_\_\_

E11. Does the apex regulator have the following powers in relation to?

- (a) Surveillance of Price movements focusing on unusual activity  
Yes No
- (b) Regular Monitoring of Companies activities  
Yes No
- (c) Investigating Insider Trading  
Yes No
- (d) Regular Monitoring of Compliance of securities market rules and regulations by market intermediaries  
Yes No
- (e) Maintaining portfolios of insiders and monitoring execution of trades by insiders  
Yes No
- (f) Applying sanctions and Fines  
Yes No

E12. Does the stock exchange have the following powers in relation to?

- (a) Surveillance of Price movements focusing on unusual activity  
Yes No
- (b) Regular Monitoring of Companies activities  
Yes No
- (c) Investigating Insider Trading  
Yes No
- (d) Regular Monitoring of Compliance of securities market rules and regulations by market intermediaries  
Yes No
- (e) Maintaining portfolios of insiders and monitoring execution of trades by insiders  
Yes No
- (f) Applying sanctions and Fines  
Yes No

## **F. Credit and Liquidity Risk Management:**

Credit risk: - sufficient financial resources, margins, collateral etc.

F1. Are there any systems and processes in place through which credit risk can be assessed/monitored in your jurisdiction?

- a. Yes
- b. No

Elaborate on the system and processes

-----

F2.What measures have been put in place for mitigating credit risk in your jurisdiction?

---

F3.Do the Brokers / Dealers in your market have requirements such as initial capital requirements?

- a. Yes                      b. No

If yes, then what is the initial capital requirement (In US Dollars)?

---

F4.Is the exposure taken by the Broker / Dealer in the market related to the Capital Requirement / Net Capital Requirement? (Basis for calculating the exposure for the brokers)

- a.Yes                      b. No

If yes then specify the exposure requirements related to the Capital Requirement / Net Capital Requirement?

---

F5. Is there any exposure upper limit?

- a. Yes                      b. No

## G. Margin: - risk based

G1. Are pre-trade margins mandatorily applicable in your jurisdiction?

- a. Yes                      b. No

If yes, how are pre-trade margins calculated in your jurisdiction?

- a. Percentage of order value
- b. Fixed percentage/amount
- c. VaR based
- d. Other, please specify \_\_\_\_\_

G2. Are post-trade exposure margins applicable in your jurisdiction?

- a. Yes                      b. No

If yes, then which methodology is used for calculating the applicable post-trade exposure margins (please check more than one if applicable)?

---

- a. Slab-based
- b. VaR based
- c. SPAN based
- d. Other, please specify \_\_\_\_\_

**G3. Is the valuation of Margins Marked to Market?**

- a. Yes                      b. No

**G4. Which entity is responsible for calculating margins?**

- a. Market Intermediary
- b. Stock Exchange
- c. Clearing House/ Clearing Company
- d. Other, please specify \_\_\_\_\_

**G5. Are all types of margin requirements clearly prescribed under the regulatory framework?**

- a. Yes                      b. No

**G6. Does the regulatory framework empower the frontline or apex regulators to impose additional margins in case of exceptional circumstances?**

- a. Yes                      b. No

**G7. What actions/procedure is followed in case of failure to deposit margins?**

- a. Imposition of fine/penalties
- b. Suspension of trading
- c. Declaration as defaulter
- d. Other, please specify \_\_\_\_\_

## **H. Collateral**

**H1. What types of collateral are acceptable against margin requirements (please check more than one if applicable)?**

- a. Cash
- b. Listed shares
- c. Listed debt instruments
- d. Bank Guarantee
- e. Units of collective investment
- f. Government bonds
- g. Other, please specify \_\_\_\_\_

**H2. In case collateral is acceptable in any form other than cash, does your jurisdiction apply any methodologies for valuation of such collateral?**



- a. Yes                      b. No

H3.If yes, are different methodologies applied for valuation of different types of acceptable collateral?

- a.Yes                      b. No

H4. Is the entity which is responsible for collection and maintenance of margin requirements different from the entity which carries out valuation of the collateral?

- a. Yes                      b. No

If yes, please clarify \_\_\_\_\_

### **I. Liquidity risk:- sufficient liquid resources**

I1. Are there any ongoing capital adequacy requirements for market intermediaries in your jurisdiction?

- a. Yes                      b. No

If yes, please specify \_\_\_\_\_

I2.Are there any systems and processes in place through which liquidity risk can be assessed / monitored in your jurisdiction?

- a. Yes                      b. No

I3.What measures have been put in place for mitigating liquidity risk in your jurisdiction?

---

### **J. Settlement**

Settlement finality:- certainty, rules and procedures

J1.What is the usual settlement cycle for the ready market trades in your jurisdiction?

- a. T+1
- b. T+2
- c. T+3
- d. Weekly
- e. Other, please specify \_\_\_\_\_

J2. What is the usual settlement cycle for the Futures market trades in your jurisdiction?

- a. T+30

- b. T+60
- c. T+90
- d. Other, please specify \_\_\_\_\_

J3. Are the clearing and settlement processes automated?

- a. Yes
- b. No

J4. Are there any defined procedures and/or regulatory requirements governing the clearing and settlement process?

- a. Yes
- b. No

J5. Onus of settlement of a particular trade is ultimately placed on?

- a. Client/Investor
- b. Intermediary
- c. Stock exchange
- d. Clearing house

J6. In case of failed settlement is the market intermediary held responsible for ensuring the settlement?

- a. Yes
- b. No

If otherwise, please specify \_\_\_\_\_

J7. Do Market practices, regulations or rules provide incentives for counterparties to settle their obligations on the contractual date?

- a. Yes
- b. No

If yes, please specify \_\_\_\_\_

## **K. Physical delivery:-handling of physical securities**

K1. Are securities maintained in the form of physical certificates or in electronic book-entry form?

- a. Physical
- b. Book entry
- c. Both

K2.If answer to above is c. approximately what percentage of total securities exists in book entry form? \_\_\_\_\_ %

K3. Are there any regulatory requirements governing the time and manner for the transfer of ownership of physical securities?

- a. Yes
- b. No

If yes, please specify the time normally taken for such transfer of ownership

---

**K4. Which entity (ies) is/are involved in the process of transferring ownership of physical securities?**

---

**K5. Are penalties imposed for failing to settle?**

- a. Yes                      b. No

**K6. Are there specific rules and procedures to address the settlement process?**

- a. Yes                      b. No

**K7. Are there any steps, if any, taken to mitigate the risks of fails?**

- a. Yes                      b. No

**K8. Are fails required to be marked to market?**

- a. Yes                      b. No

## **L. Central securities depositories**

**Central securities depositories:- rules and procedures for safekeeping and transfer**

**L1. Please specify the entity which regulates the functions of Central Depositories (CSD).**

**L2. Are securities issued or maintained in a dematerialized form?**

- a. Yes                      b. No

**L3. What percentage of securities is dematerialized?**

**L4. Are the processes at the depository fully automated?**

- a. Yes                      b. No

**If no, please specify the extent of manual intervention**

---

**L5. Who is entitled to open an account with the CD**

- a. Market intermediaries  
b. Market intermediaries and individual investors

**L6. Are there any defined procedures and/or regulatory requirements governing the functions of the depository?**

- a. Yes                      b. No

**M. Default management:**

**M1. Please clarify what constitutes default of a market intermediary in your jurisdiction (Please check as many options as applicable)?**

- a. Settlement Failures
- b. Failure to deposit margins
- c. Failure to maintain minimum capital adequacy
- d. Non-resolution of investor complaints
- e. Other, please specify \_\_\_\_\_

**M2. Does your regulatory framework provide for any specific procedures to be followed in case of default of a market intermediary?**

- a. Yes                      b. No

**M3. Which assets of the market intermediary can be utilized for settlement of claims in case of default?**

---

**M4. What is sequence of utilization of the assets of a defaulter?**

---

**M5. Are there any market protection funds available in your jurisdiction which can be utilized in case of default?**

- a. Yes                      b. No

If yes then please provide the extent/limit this fund can be used (USD)

**M6. Is utilization of client's securities allowed for compensating default of the market intermediary?**

- a. Yes                      b. No

**N. Segregation: - client assets and participants assets**

**N1. Is the term "Client" a defined term in your jurisdiction?**

- a. Yes                      b. No

---

If yes, how is it defined? \_\_\_\_\_

If no, please provide any alternate meanings generally implied or assumed for this term in your jurisdiction:

**N2. How does your jurisdiction define the term "Client Assets"?**

\_\_\_\_\_

**N3. Are there any regulatory requirements for segregation of the Client Assets from the Intermediaries Assets?**

a. Yes                      b. No

**N4. Is prior authority/permission required from the Client for utilization / movement of Client Assets?**

a. Yes                      b. No

**N5. If yes, which of the following type of authority from the Client is required in your jurisdiction for allowing movement of Client Assets?**

- a. Blanket Authority for all Transactions
- b. Specific Authority for any one transaction or type of transactions
- c. General Authority
- d. Other \_\_\_\_\_
- e. Any one or all of the above, Please specify:

\_\_\_\_\_

**N6. Can any third part interest on the Client Assets be created without prior consent/permission from the Client?**

a. Yes                      b. No

**N7. Can enforcement actions be taken against an intermediary if it fails to comply with requirements for Client Asset segregation?**

a. Yes                      b. No

If yes, please specify: \_\_\_\_\_

**N8. If a client has a debit balance, does the Regime permit the Intermediary to deduct such balance in determining its segregation?**

a. Yes                      b. No

## **O. Efficiency & Effectiveness**

**O1. Do you agree with the view that market efficiency is likely to be best served for exchange traded investments when all significant venues for price formation in those investments operate to common transparency standards**

- a. Yes                      b. No

**O2. Do you see business profile of OIC's exchanges changing materially during next 5 years?**

- a. Yes                      b. No

**O3. If you have answered "Yes" to question above, do you believe those changes might have a significant impact on exchange markets (for example, on role of the exchanges as regulators, on efficiency and competition)**

- a. Yes                      b. No

If yes, how? \_\_\_\_\_

## **P. Communication**

**P1. Which of the following is mostly used as a mode of communication between FMI and the participants**

- a. E-mail      b. Fax    c. Telephone    d. Mail    e. Other

**P2. FMI's having cross border activities largely, use:**

- a. Internationally accepted communication procedures  
b. Use them when required

## **Q. Access**

**Q1. Are access rules/criteria objective and clearly disclosed to all potential applicants?**

- a. Yes                      b. No

**Q2. Are the same rules applied regardless of the identity, type and location of the applicant?**

- a. Yes                      b. No

If not, what variations apply and why?

**Q3. Can differential restrictions on access to the system be justified in terms of the need to limit risks to the system operator or to other users?**

a. Yes                      b. No

**Q4. Who is responsible to assess that a member meets the minimum criteria for access?**

**Q5. Is there any mechanism for continuous monitoring of compliance with minimum requirements / criteria?**

a. Yes                      b. No

**Q6. Does the regime allow limiting/restricting the access of members to certain market segments permanently or for a limited period if it fails to meet access criteria?**

a. Yes                      b. No

**Q7. Under what conditions can participants terminate their membership?**

**Q8. What arrangements does the system have in place to facilitate the exit of members who no longer meet the participation requirements?**

## **R. Disclosure, General Business and Operational Risk**

**R1. Is risk based supervision applied in your jurisdiction?**

Yes    No

**R2. Do you undertake periodic stress testing of clearing and settlement systems?**

Yes    No

**R3. Do the infrastructure institutions disclose the following to participants?**

Rules	Yes	No
Procedures in Place	Yes	No
Costs and Fees	Yes	No
Risks to participants	Yes	No
Rights and Obligations of participants	Yes	No

**R4. In what form in disclosure mandated?**

Website	Yes	No
Notices	Yes	No
Media	Yes	No

**R5. How frequently is market data/information disclosed to the participants?**

- a. Immediately                      b. Within a week                      c. Within a month                      d. Other

## S. Issues and Challenges

S1. What are the major issues you have faced in developing capital market infrastructures? Rank on a scale from 1 -5.

Deficiencies in the legal framework	
No macroeconomic environment	
Gaps in Capacity and resources	
Political uncertainty	
Nascent Securities Markets	
Lack of investors in the markets	

S2.If not already in place, do you plan on expanding the scope of the regulatory framework to include capital market infrastructure institutions?

----- End of Questionnaire -----

Thank you for your contribution to this survey questionnaire. Your valuable input will certainly help us successfully accomplish the mandate.

If you have any inquiry or need any further assistance regarding this survey questionnaire, please contact Mr. Salman Hayat at the Securities & Exchange Commission of Pakistan, by email ([salman.hayat@secp.gov.pk](mailto:salman.hayat@secp.gov.pk)) or by phone (+92-51-9218593).

Kindly submit the completed questionnaires to Ms. Khalida Habib ([Khalida.habib@secp.gov.pk](mailto:Khalida.habib@secp.gov.pk)) and Mr. Salman Hayat ([salman.hayat@secp.gov.pk](mailto:salman.hayat@secp.gov.pk)) at Securities and Exchange Commission of Pakistan, Mr. Nasser Emami ([n.emami@seo.ir](mailto:n.emami@seo.ir)) at the Securities and Exchange Organization, Iran and copy the same to ([secretariat@comceccmr.org](mailto:secretariat@comceccmr.org)) by April 25, 2013.