The Board of Bursa Malaysia is committed to maintaining a sound internal control and risk management system. Each business unit/functional group has implemented its own control processes under the leadership of the Chief Executive Officer ("CEO"), who is responsible for good business and regulatory governance. The following statement outlines the nature and scope of the Group's internal control and risk management in 2015.

#### **BOARD'S RESPONSIBILITY**

The Board affirms its overall responsibility for the Group's system of internal control and risk management and for reviewing the adequacy and integrity of the system. The system of internal control covers governance, risk management, financial, strategy, organisational, operational, regulatory and compliance control matters. The Board recognises that this system is designed to manage, rather than eliminate, the risks of not adhering to the Group's policies, and achieving goals and objectives within the risk tolerance established by the Board and Management. Therefore, the system provides reasonable, but not absolute, assurance against the occurrence of any material misstatement, loss or fraud.

In 2015, the adequacy and effectiveness of internal controls were reviewed by the Audit Committee ("AC") in relation to the internal audits conducted by the Group Internal Audit ("GIA") during the year. Audit issues and actions taken by Management to address the issues tabled by GIA were deliberated on during the AC meetings. Minutes of the AC meetings which recorded these deliberations were presented to the Board.

The Risk Management Committee ("RMC") provides oversight on risk management matters relating to the activities of Bursa Malaysia as an exchange holding company and of its subsidiaries in accordance with Section 22 of the Capital Markets and Services Act 2007 ("CMSA"), to ensure prudent risk management over Bursa Malaysia's business and operations. At its scheduled meetings in 2015, the RMC had reviewed, appraised and assessed the efficacy of the controls and progress of action plans taken to mitigate, monitor and manage the overall risk exposure of the Group. The RMC also reviewed proposals for new products, monitored the progress and status of risk management activities, as well as raised issues of concern and provided feedback for Management's action.

Internal control and risk-related matters which warranted the attention of the Board were recommended by the AC and RMC to the Board for its deliberation and approval and matters or decisions made within the AC's and RMC's purview were escalated to the Board for its notation.

#### **KEY INTERNAL CONTROL PROCESSES**

The Group's internal control system comprises the following key processes:

## 1. Separation of Commercial and Regulatory Functions

a. The Group's commercial and regulatory functions are segregated to ensure the proper discharge of Bursa Malaysia's regulatory duties. Both these functions operate independently of each other to ensure that business units are not in a position to unduly influence any regulatory decision made by the Regulation unit. It is Bursa Malaysia's statutory duty to always act in the public interest, with particular regard for the need to protect investors. As such, the Board of Bursa Malaysia, which includes Public Interest Directors, is responsible for upholding public interest in its decision making.

To this end, Regulatory Committees have been set up to deliberate on and decide regulatory matters to ensure Bursa Malaysia upholds its obligation to safeguard the public interest. These committees, apart from Board members, comprise independent individuals with significant and relevant industry experience.

b. Processes are established and set out in the Guidelines for Handling Conflict of Interest ("COI") to deal with any possible COI which may arise in the course of Bursa Malaysia performing its commercial or regulatory role.

### 2. Authority and Responsibility

 Certain responsibilities are delegated to Board Committees through clearly defined Terms of Reference ("TOR") which are reviewed annually.

- The Corporate Authority Manual is reviewed periodically to reflect the authority and authorisation limits of Management in all aspects of Bursa Malaysia's major business operations and regulatory functions.
- c. The Group's Management Governance Framework, comprising two committees for the governance function and two committees for the business operations function, has clearly defined TOR to enable good business and regulatory governance.

## 3. Planning, Monitoring and Reporting

- a. An annual planning and budgetary exercise is undertaken requiring all divisions to prepare business plans and budgets for the forthcoming year. These are deliberated on and approved by the Board before their implementation.
- b. The Board is updated on the Group's performance at the scheduled meetings. The Group's business plan and actual vs budget performance for the year are reviewed and deliberated on by the Board on a half-yearly basis. Financial performance variances are presented to the Board on a quarterly basis.
- c. There is a regular and comprehensive flow of information to the Board and Management on all aspects of the Group's operations to facilitate the monitoring of performance against the Group's corporate strategy, business and regulatory plans. The Board also reviews and approves the Annual Regulatory Report, which informs the Securities Commission ("SC"), under Section 16 of the CMSA, of the extent to which Bursa Malaysia and its subsidiaries have complied with their duties and obligations under Sections 11 and 21 of the CMSA.
- d. The Director of Corporate Services, who is also the Chief Financial Officer ("CFO") is required to provide assurance to the AC that appropriate accounting policies have been adopted and applied consistently, the going concern basis applied in the Annual Financial Statements and Condensed Consolidated Financial Statements is appropriate, and that prudent judgements and reasonable estimates have been made in accordance with the requirements set out in the Malaysian Financial Reporting Standards ("MFRSs") and the International Financial Reporting Standards ("IFRSs"). The CFO also assures that adequate processes and controls are in place for effective and efficient financial reporting and disclosure under the MFRSs, IFRSs and Bursa Malaysia Securities Berhad Main Market Listing Requirements ("MMLR"), and that the Annual Financial Statements and the quarterly Condensed Consolidated Financial Statements give a true and fair view of the financial position and the financial performance of the Group and do not contain any material misstatement.

#### 4. Policies and Procedures

- a. Clear, formalised and documented internal policies, standards and procedures are in place to ensure compliance with internal controls and relevant laws and regulations. A list of identified laws and regulations applicable to Bursa Malaysia is documented and maintained to facilitate compliance. Regular reviews are performed to ensure that these documentations remain current and relevant. Common Group policies are available on Bursa Malaysia's intranet for easy access by employees.
- b. GIA conducts system readiness reviews to assess the progress of project implementation according to the pre-determined timelines, milestones and objectives of the projects and also to ensure that due process has been complied with prior to the implementation or launch of significant systems development and enhancement projects. Post implementation reviews are also conducted after a predefined period of time to assess the realised benefits of the implemented significant systems and projects.

#### 5. Audits

 Audit engagements are carried out based on the annual audit plan that is developed taking into consideration several key factors that include corporate risk profiles, divisional risk profiles and emerging risks.

At the engagement level, the divisional risks, existing control design and its risk indicators' performance are taken into consideration during the risk profiling stage. After which, key engagement areas are identified for the audit scope. GIA assesses the internal controls and risk management practices of the areas under the audit scope in regards to compliance/conformance with the approved standard operating policies & procedures, recognised standards/guidelines, laws & regulations and/or best practices accordingly.

For any significant gaps identified in governance, risk management and control during the engagement, GIA provides recommendations to Management to improve their design and/or effectiveness where applicable.

b. In addition, GIA assesses and reports on the adequacy and effectiveness of the Group's governance, internal control and risk management system using the Committee of Sponsoring Organisations of the Treadway Commission ("COSO") Internal Control - Integrated Framework.

The adequacy and effectiveness of the Group's governance, internal control and risk management system are assessed and reported according to the following five interrelated COSO components:



- c. In 2015, GIA had also carried out a review to assess the adequacy and effectiveness of Bursa Malaysia's risk management functions, as well as to assess the conformance between the existing risk management governance, framework and processes and the recognised standards and guidelines. The outcomes of the reviews highlighting areas of enhancement and corresponding recommendations were provided to Management.
- d. Annual on-site regulatory audits are conducted by the SC on the Group's operations to ensure compliance with its duties and obligations under the CMSA, as well as its policies and procedures.
- e. The yearly certification for the Information Security Management System ("ISMS"), MS ISO/IEC 27001:2013 was carried out by CyberSecurity Malaysia. The ISMS scope covered the management, operation and maintenance of the information system assets and information systems of Bursa Malaysia and its subsidiaries.
- f. The Auditor Independence Policy requires the external audit engagement and quality reviewing partners to be subject to a five-year rotation with a five-year cooling-off period. An annual plan, comprising planned statutory audits, recurring non-audit services and other anticipated non-audit services by the External Auditors, requires prior approval by the AC. The AC's approval is also required for unplanned non-audit services obtained from the current External Auditors.
- g. The GIA team is required to conduct quarterly assessments of the internal control system pertaining to the processes of the relevant business units/functional groups which have a bearing on the financial information of Bursa Malaysia, to ensure the reliability and integrity of such information. The Senior Executive Vice President, GIA, who is also the Head of GIA, is required to confirm the effective operation of process controls which support the preparation of the financial statements.

h. In addition to the annual audit, the External Auditors are engaged to conduct limited reviews on the quarterly financial results together with the cumulative quarters in accordance with the International Standard on Review Engagements 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity".

## 6. Risk Management

a. The Group has in place an established risk management framework for managing risks affecting its business and operations. In order to ensure that our risk management framework and process remain sound and are in conformance with an internationally recognised standard, we have reviewed and enhanced our risk management framework and process this year by benchmarking against the ISO 31000:2009 Risk Management – Principles and Guidelines. One of the key features of our risk management framework is a risk management structure comprising three lines of defence with established and clear functional responsibilities and accountabilities for the management of risk.

### **THREE LINES OF DEFENCE**



- b. Senior Management, which includes Management Committee members and Divisional Heads, are the first line of defence and are accountable for all risks assumed under their respective areas of responsibility based on the Risk Management Principles & Framework and Risk Management Process & Guidelines manuals. This group of personnel is also responsible for the continuous development of the risk management capabilities of employees and ensures that risk management is embedded in all key processes and activities.
- c. The second line of defence is provided by the Corporate Risk Management team, with oversight by the RMC. The Corporate Risk Management team is responsible for monitoring the risk management activities of the Group and ensuring compliance with, as well as effective implementation of, the risk management framework and process. The TOR of the RMC were revised to enable the RMC to fulfil its primary purpose and various responsibilities in enhancing the effectiveness of the risk management framework for the Group.

- d. The third line of defence is provided by the GIA. The GIA reports directly to the AC and provides independent assurance of the adequacy and reliability of governance, internal control and risk management processes.
- e. Within the framework, we have an established and structured process for the identification, assessment, communication, monitoring as well as continual review of risks and effectiveness of risk mitigation strategies and controls at the divisional and corporate levels. The analysis and evaluation of our risks are guided by approved risk criteria. The Group also has a risk management system with adequate features and functionalities to support the risk management process and reporting.
- f. Our level of risk tolerance is expressed through the use of a risk impact and likelihood matrix with an established risk tolerance boundary demarcating those risks that are deemed to have "exceeded risk tolerance" and those which have not. We have clear risk treatment guidance on the actions to be taken for the relevant risks.
- g. The management of the significant risks identified for the financial year 2015 is outlined below:

SIGNIFICANT RISKS for the financial year 2015	
RISK 1	BUSINESS INTERRUPTION RISK
RISK 2	CYBER ATTACK RISK
RISK 3	TALENT MANAGEMENT RISK
RISK 4	INCREASING COMPETITION RISK
RISK 5	CENTRAL COUNTERPARTY CREDIT RISK
RISK 6	MARKET REGULATION RISK

#### i. Business Interruption Risk

Appropriate systems with adequate capacity, security arrangements, facilities and resources are in place to mitigate risks that could cause interruption to the Group's critical business functions. The Group also has a comprehensive Business Continuity Plan ("BCP"), including a Disaster Recovery Plan which is tested annually to ensure continuity of our business and technology operations.

We conducted two industry-wide BCP exercises in 2015, one for the Derivatives Market and the other for the Securities Market. The Islamic and Bond Markets were tested together with the Securities Market. This is to provide assurance that in the unlikely event that Bursa Malaysia encounters major business interruption, its alternate site and backup systems

can be successfully activated to resume its critical business operations. In 2015, Bursa Malaysia did not face any major business interruption.

A BCP exercise for the Derivatives Market was conducted on 25 April 2015 between Bursa Malaysia Derivatives Berhad's ("BMD") primary site and CME Group Inc's ("CME") disaster recovery ("DR") site in New York City. BMD successfully resumed all its critical functions namely trading, clearing, surveillance and risk management within the target recovery time objectives. The critical success factor was for the market participants to successfully establish/switch the connectivity to BMD's primary site for clearing operations and to CME's DR site for trading operations.

A BCP exercise for the Securities, Islamic and Bond Markets as well as Bursa Malaysia's other key supporting functions and systems was conducted on 12 September 2015 and all test objectives were met. We successfully simulated the intraday failure at the primary site and the recovery and resumption of all critical functions/systems namely trading, clearing, depository and surveillance within the target recovery time objectives from our DR site for these three markets.

In addition, Bursa Malaysia also facilitated two BCP exercises for the market participants, one on 23 May 2015 and the other on 8 August 2015. The primary objective was for the market participants to test and ensure that they could switch/connect to Bursa Malaysia, BMD and CME's primary sites' systems from their backup sites/systems.

Continuing from 2014's initiative to align Bursa Malaysia's business continuity practices with the requirements of ISO 22301:2012 Business Continuity Management Systems, the Business Continuity Management ("BCM") team conducted further comprehensive reviews with key interested parties (i.e. all BCP recovery teams) and made the necessary changes to Bursa's BCP Policy and Procedure Manual. The BCP Policy and Procedure Manual was renamed Bursa Malaysia's Business Continuity Management System ("BCMS"), together with ISO 22301:2012 (BCMS Requirements) and ISO 22313:2012 (BCMS Guidance), and will serve as a comprehensive guide for the Group's BCM related processes and activities.

The BCMS is all encompassing as it includes all necessary resources such as business continuity policy, BCP, business and technology infrastructure and facilities, people with defined responsibilities, and relevant business continuity management processes such as leadership, business planning, implementation, support, operation, performance monitoring, management review and continual improvement. The BCMS has been put into effect in 2015.

#### ii. Cyber Attack Risk

In order to ensure that our systems are secured, Bursa Malaysia has invested in and set in place adequate IT security tools and mechanisms to detect, protect against and respond to cyber security threats that are constantly evolving and emerging globally. These tools and mechanisms include:

### **TOOLS AND MECHANISMS**

- i. FIREWALL AND INTRUSION PREVENTION SYSTEM
- ii. CLEAN PIPE SERVICES
- iii. APPLICATIONS AND SYSTEMS SEGMENTATION
- iv. ANTI-VIRUS AND ANTI-MALWARE
- v. ROUND-THE-CLOCK CYBER THREATS MONITORING

We will continue to review and enhance these tools and mechanisms to address new and increasingly sophisticated cyber threats.

## iii. Talent Management Risk

In 2015, we further strengthened our 2014 initiatives to focus on talent management, developmental growth for employees and diverse engagement programmes by:

- Refining our Succession Management Framework and development plan to accelerate the successors' readiness for critical positions.
- Focusing on several learning approaches to support employees' development interventions to ensure consistent progress in their Individual Development Plan.
- Implementing initiatives and programmes to sustain and improve levels of engagement at corporate and divisional levels as part of our talent retention strategy.

#### iv. Increasing Competition Risk

Our Blueprint, established in 2012 together with the strategic intents, remains relevant in guiding Bursa Malaysia towards the desired end state of becoming Asia's Leading Marketplace. In the face of increasing competition, we have refined our 2014-2016 strategy to reflect the state of overall

progress and to enable greater focus and alignment to our aspirations to:

### **OUR ASPIRATIONS**

- i. BE A DYNAMIC NATIONAL EXCHANGE THAT PROPELS ECONOMIC GROWTH AND CAPITAL MARKET DEVELOPMENT
- ii. HAVE A CLEAR NICHE IN ISLAMIC
  CAPITAL MARKETS, SUSTAINABILITY AND
  COMMODITIES
- iii. HAVE A DEEPER AND WIDER ASEAN FOOTPRINT

#### v. <u>Central Counterparty Credit Risk</u>

Bursa Malaysia has in place robust risk management processes and procedures to manage counterparty/settlement risks and prevent any systemic impact on the market. Bursa Malaysia Securities Clearing Sdn Bhd and Bursa Malaysia Derivatives Clearing Berhad act as the central counterparty for equities and derivatives trades respectively, and thus are subject to counterparty credit risk. The processes and procedures of these two clearing houses are in line with the Principles for Financial Market Infrastructures ("PFMI") issued by the Committee on Payment and Settlement Systems ("CPSS"), Technical Committee of the International Organisation of Securities Commissions ("IOSCO"), which include the following:

- Daily mark-to-market positions, initial and variation margin requirements and collateral management;
- Monitoring Trading Clearing Participants' ("TCP") and Clearing Participants' ("CP") capital requirements and adequacy;
- Managing credit exposures via price, trading, single client, equity and position limits;
- Monitoring monthly the financial health of the clearing settlement banks via the risk weighted capital ratio ("RWCR") and credit ratings. The concentration risk is also monitored based on the TCP or CP total trade settlements with the relevant clearing settlement banks;
- Maintenance and stress-testing of the Clearing Guarantee Fund ("CGF") and the Clearing Fund for equities and derivatives trading, respectively to ensure that they are sufficient to protect the Clearing Houses under extreme but plausible market scenarios; and

 Conducting annual default drill exercises by simulating default scenarios to test the effectiveness of the Default Management Procedures to ensure they remain robust and relevant in the face of the uncertain market environment.

In 2015, there were no settlement defaults by any TCP or CP and neither the CGF nor the Clearing Fund was called upon.

In order to further strengthen the Group's credit risk controls, in 2015 we enhanced our credit stress testing and risk monitoring functions to include reviewing the risk exposures and collateral policies according to the risk standards set by the IOSCO.

In line with international best practices, Bursa Malaysia Derivatives Clearing Berhad has published its Disclosure Framework (http://www.bursamalaysia.com/market/derivatives/disclosure-framework/bmdc-disclosure-framework/) in accordance with Principle 23 of the PFMI issued by the CPSS, IOSCO.

We will continue to review and enhance the above processes and procedures in accordance with best practices and standards to ensure that they are viable and robust.

## vi. Market Regulation Risk

The Group, as a securities and derivatives exchange in Malaysia, has a statutory duty to ensure an orderly and fair market and to ensure that we act in the public interest, having particular regard to the need for investor protection. In order to address any risks that could affect or emanate from our front-line regulator role, we have put in place adequate mechanisms and processes for monitoring, supervision and oversight of the trading activities in our markets, intermediaries of our markets and the listed issuers.

h. Towards the end of 2015, we revisited all our existing significant risks together with any relevant inherent and emerging risks to assess their effect on the Group for the upcoming year and we recognised that the above significant risks will remain relevant for 2016.

## 7. Performance Measurement

a. Key Performance Indicators ("KPIs"), which are based on the Corporate and Divisional Balanced Scorecards and Individual KPI and Behavioural Competencies, are used to track and measure employees' performance.  Yearly employee engagements and customer satisfaction surveys are conducted to gain feedback on the effectiveness and efficiency of stakeholder engagements for continuous improvement.

### 8. Employees' Competency

Hiring and Termination Guidelines are in place, while training and development programmes are conducted to ensure that employees are kept up to date with the necessary competencies to carry out their respective duties in achieving the Group's objectives.

### 9. Conduct of Employees

a. Bursa Malaysia's corporate culture is founded on the following core values which are continuously inculcated in employees during their service to Bursa Malaysia and its stakeholders:

#### **CORE VALUES**

**BUILDING RELATIONSHIPS** 

**UNITED TO ACHIEVE** 

**RESPONSIBILITY** 

SIMPLICITY

**AGILITY** 

- A Code of Ethics is established for all employees, which defines the ethical standards and conduct of work required at Bursa Malaysia.
- c. Bursa Malaysia has a Whistleblower Policy and Procedures ("WPP") to provide an avenue for employees or any external party to report any breach or suspected breach of any law or regulation, including business principles and the Group's policies and guidelines, in a safe and confidential manner. An employee who makes a report of improper conduct in good faith shall not be subject to unfair dismissal, victimisation, demotion, suspension, intimidation or harassment, discrimination, any action causing injury, loss or damage or any other retaliatory actions by the Group. The AC has the overall responsibility in overseeing the implementation of the WPP for Bursa Malaysia Group.
- d. A Securities Transaction Policy is established to govern the securities transactions of the Group's employees. The policy prohibits employees from using unpublished price sensitive information obtained during the course of their work for personal gain or for the gain of other persons. All employees (including principal officers) are also not allowed to trade in the securities of Bursa Malaysia during the closed period, which is 30 calendar days preceding the announcement of the Group's quarterly and annual financial results.

- e. A Corporate Fraud Policy is established to aid in the detection and prevention of fraud and to promote consistent organisational behaviour and practices.
- f. A Confidentiality Policy is established to manage, control and protect confidential information used by the Group to avoid leakage and its improper use.
- g. Management and employees at Grade E6 and above are required to declare annually and provide an update on assets acquired or disposed of during the year.
- Segregation of duties is practised whereby conflicting tasks are assigned to different members of employees to reduce the scope for error and fraud.

#### 10. Insurance

Sufficient insurance coverage and physical safeguards on major assets are in place to ensure the Group's assets are adequately covered against any mishap that could result in material loss. A yearly policy renewal exercise is undertaken by Management to review the coverage based on the current fixed asset register and the respective net book values and "replacement values", i.e. the prevailing market price for the same or similar item, where applicable. There is also a yearly exercise to ensure the adequacy and renewal of the Group's professional indemnity insurance coverage.

#### **REVIEW OF THIS STATEMENT**

Pursuant to paragraph 15.23 of Bursa Malaysia Securities Berhad MMLR, the External Auditors have reviewed this Statement for inclusion in the 2015 Annual Report, and have reported to the Board that nothing has come to their attention that causes them to believe that the Statement is not prepared, in all material aspects, in accordance with the disclosures required by paragraphs 41 and 42 of the Statement on Risk Management and Internal Control Guidelines for Directors of Listed Issuers, nor is the Statement factually inaccurate. This Statement was approved by the Board on 2 February 2016. GIA has reviewed this Statement and reported to the AC that, while it has addressed certain individual lapses in internal control during the course of its internal audit assignments for the year, it has not identified any circumstances which suggest any fundamental deficiencies in the Group's internal control and risk management system.

#### CONCLUSION

The Board is of the view that the system of internal control and risk management in place for the year under review, and up to the date of approval of this Statement, is sound and sufficient to safeguard the Group's assets, as well as the shareholders' investments, and the interests of customers, regulators, employees and other stakeholders.

The Board has received assurance from the CEO and CFO that the Company's internal control and risk management system is operating adequately and effectively, in all material aspects, based on the framework adopted by the Group.