Risk Committee Report

Risk Statement

Effective risk management is important to the Group’s achievement of its strategic goals. The Group manages risk across multiple risk domains, including but not limited to financial, business and strategic, operational (including IT and cyber security) and legal and regulatory risks. Business operations are managed in line with risk appetite tolerances set by the Board.

The Group seeks to ensure it achieves its strategic goal of being the global exchange and clearing provider of choice for investors and other market participants seeking exposure in the Hong Kong, Mainland China and international markets. This includes maintaining stakeholder trust and supporting the integrity of the financial system. The Group recognises its role as a market infrastructure provider and manager of systemic risk, and that its long-term sustainability is dependent on its pursuit of strategic goals while simultaneously managing risks, having sufficient capital and liquidity, ensuring continuity of operations, and protecting its reputation.

The Group aims to maintain sufficient capital and liquidity to meet its regulatory obligations, which require it to have financial resources to cover potential losses and liquidity needs for a range of stress scenarios taking into account extreme but plausible market conditions. As a business, the Group also aims to maintain sufficient capital over and above that required to meet its regulatory obligations in order to fund its strategic development objectives while ensuring the appropriate balance between risk and shareholder returns. The Group applies risk management measures to strategic initiatives that are designed to limit the Group’s exposure to potential losses. It also seeks to maintain liquid financial resources to meet unforeseen cash outflows. The Group strives to maintain stakeholder trust by avoiding business practices that could lead to reputational damage or harm to the Group. The Group, therefore, seeks to operate within all relevant rules and regulations and to avoid disruptions to its business operations that would have a negative impact on stakeholders.

The Risk Committee

The Risk Committee is delegated by the Board to oversee the Group’s overall Risk Management Framework and to advise the Board on the Group’s risk-related matters. The Committee is also responsible for reviewing the Group’s risk policies and, in conjunction with the Audit Committee, assessing the effectiveness of the Group’s risk management and internal control systems. The Committee’s terms of reference are available on the HKEX Group website ORG. The Committee comprises five INEDs whose names and biographies are set out in the Board and Committees section of this Annual Report. The Committee held four meetings in 2018. Members’ attendance records are disclosed in the Corporate Governance Report contained in this Annual Report.

Summary of Work in 2018/2019

During the period, the Risk Committee oversaw key risk management activities including:

- Enhancements to the risk governance model including an update of the Risk Committee’s terms of reference and the establishment of additional management forums for specific risks;
- Review of the risk appetite statements and risk tolerances;
- Implementation of risk and compliance culture initiatives;
- Enhancements to the clearing house default management and margining practices;
- Continued work on LME market surveillance and the European MiFID II compliance programme to ensure compliance;
- Review of the HKEX Compliance Monitoring Programme;
- Review of the results of the Group’s quarterly Enterprise Risk Management processes including risk heatmaps and dashboards, summaries of assurance activities, emerging risks and clearing house liquidity, capital adequacy and solvency levels; and
- Review of the management confirmation on the effectiveness of the Group’s risk management and internal control systems.
Operating an appropriate and effective risk management and internal control system is essential to achieving the Group’s strategic objectives and maintaining service delivery targets. The Risk Committee is responsible for overseeing the Group’s risk management approach, policy and framework. The Group operates a consistent methodology using the Group Risk Management Framework for the identification, assessment, reporting and management of risks. Risk identification and management is the responsibility of Group Management. The Group operates a risk governance model to effectively identify and manage risk.

**Risk Governance**

The Group’s risk governance structure is based on a “Three Lines of Defence” model, with oversight and directions from the Board, the Risk Committee, and Group Management through the Executive Risk Committee.

**Group Risk Management**

The Group Risk Management Framework, approved by the Risk Committee, mandates a consistent and effective approach applied across the Group to manage the risks associated with its business and operations. The framework is based on the international standard ISO (International Organisation for Standardisation) 31000 Risk Management – Principles and Guidelines. The following diagram illustrates the key processes adopted under the Group Risk Management Framework.

**Establish Risk Context**

HKEX Group Risk Management establishes common risk assessment criteria and sets up risk reference tables for the Group.

**Risk Identification**

Divisions and departments identify the risks that potentially impact the key processes of their operations.

**Risk Assessment**

Divisions and departments assess and score the risks identified along with their impact on the business and the likelihood of their occurrence.

**Risk Treatment**

Divisions and departments assess effectiveness of existing controls and provide treatment plans where required.

**Risk Reporting & Monitoring**

Divisions and departments monitor risk mitigating activities. Risks are regularly reported at appropriate management levels within the Group and assurance is provided on the progress of treatment plans.
Principal Risks
The Group faces a number of principal risks and uncertainties that if not properly managed could create an exposure for the Group. Thorough risk assessment and mitigation help ensure these risks are well managed and governed effectively. The Group focuses on addressing the following principal risks.

<table>
<thead>
<tr>
<th>Principal Risks</th>
<th>Description</th>
<th>Key Mitigations</th>
</tr>
</thead>
</table>
| Business and Strategic Risk     | The risk of material adverse changes to the Group's business performance, development prospects and/or ability to deliver its strategy, caused by changes in the business, economic, competitive, regulatory or political environment in which the Group operates. | • Proactive monitoring of global exchange industry trends, competitors and innovations;  
  • Proactive monitoring of and preparation for global and local changes in regulations affecting the Group; and  
  • Responsive project controls to allow strategic flexibility and dedicated strategy resources. |
| Credit Risk                     | The risk that a counterparty will not settle an obligation in full value, either when due or at any time thereafter.                                                                                           | • Default management and recovery procedures in place;  
  • Established credit risk management function;  
  • Stress tested collateral and margin deposits; and  
  • Clearing market risk managed through collateral management and margin practices.                                                                 |
| Market Risk                     | The risk resulting from adverse movements in market rates or prices such as foreign exchange rates, interest rates or equity prices impacting the Group’s investment portfolio (Investment Market Risk). | • Investment capital at risk limited by investment policies, restrictions and guidelines; and  
  • Exposure to foreign exchange risk through subsidiaries limited due to HKD/USD peg.                                                                |
| Liquidity Risk                  | The risk of being unable to settle obligations as they fall due whether relating to HKEX’s cash flow requirements and/or regulatory requirements for clearing coverage confidence levels under extreme but plausible market conditions. | • Investment policy, restrictions and guidelines in place covering Corporate Funds, Margin Funds and Clearing House Funds; and  
  • Clearing liquidity risk management requirements met through established stress testing practices.                                           |
| Operational Risk                | The risk of financial or reputational loss or inability to deliver services and products due to inadequate or failed internal processes, IT systems or external events. | • ESG programmes;  
  • Low latency, highly resilient IT service design;  
  • Service delivery controls covering people, process and technology; and  
  • Site and data centre continuity arrangements.                                                                                                       |
| Cyber Security Risk             | The risk of financial or reputational loss or inability to deliver services and products due to unauthorized access, use, disclosure, disruption, modification, or destruction of organisational data and/or systems. | • IT network perimeter controls and cyber attack drills;  
  • Enhanced cyber threat prevention and detection;  
  • Enhanced real time data loss monitoring; and  
  • Cyber incident forensics and breach response controls.                                                                                           |
| Legal and Compliance Risk       | The risk of loss resulting from breach of or non-compliance with applicable laws, regulations or contractual obligations.                                                                                       | • Internal and where appropriate external legal advice sought and compliance reviews conducted on business activities and new initiatives;  
  • Legal review of contracts; and  
  • Compliance review monitoring programme.                                                                                                            |
| Listing Risk                    | The risk of reputational damage resulting from a failure on the part of SEHK to comply fully with its statutory obligations or the provisions of, or obligations under, the January 2003 MOU with the SFC. | • Existing checks and balances under three-tiered regulatory structure (including the Listing Committee);  
  • Listing Division Market Contingency Plan to deal with potential business disruption events;  
  • Monitoring of unusual movements in price or trading volume of issuers’ listed securities; and  
  • Segregation from other parts of HKEX using Chinese Wall arrangements to avoid leakage of inside information. |

Laura M CHA  
Chairman of the Risk Committee  
Hong Kong, 19 February 2019