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), ESG, 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 markets leader in the Asian time-zone; building upon our role as the leading venue for investing into and out of Mainland China, while increasing our international relevance to China, and our Asia relevance to the global markets. This includes acting in the interest of the public with particular regard to the interest of the investing public, 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 is 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 robust and effective risk management approaches to minimise the Group's exposure to potential losses, while maintaining 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 and compliance policies and, in conjunction with the Audit Committee, at least quarterly assessing the adequacy and effectiveness of the Group's risk management and internal control systems. The Committee's terms of reference are available on the HKEX Group website OS. The Committee comprises six INEDs whose names and biographies are set out in the Board and Committees section of this Annual Report. The Committee held four meetings in 2024. Members' attendance records are disclosed in the Corporate Governance Report contained in this Annual Report.



Summary of Work in 2024/2025

- Approved the new Group Financial Risk Management Policy
- Approved the updates to the Group Cyber Risk Management Policy, Group Business Continuity Management Policy, Group Anti-Fraud Policy, Group Business Continuity Management Guidance, and Group Incident Management Guidance
- Approved the review on Risk Assessment Matrix
- · Approved the withdrawal limit of excess cash collateral and payment in other currencies in HKEX clearing houses
- Approved the revisions to the Terms of Reference (ToR) of the Executive Risk Committee and the Clearing Risk Committee
- Endorsed the revisions of the Risk Committee's ToR and assessed the Risk Committee's compliance with its ToR
- Endorsed the Group Risk Appetite Statement updates
- Reviewed the proposed risk management arrangements for Severe Weather Trading
- Reviewed the CrowdStrike Windows global IT outage and initial lessons learned
- Reviewed the proposed change to daily settlement price methodology in HKCC
- Reviewed the Clearing Risk Committee reports
- Reviewed the cyber improvement updates, progress in geopolitical risk remediation programme and Orion Derivatives
 Platform project, risk implications for LME Group arising from US and UK sanctions on Russian metal, Principles for
 Financial Market Infrastructures (PFMI) independent model validation results, and conversion of Group Technology Risk
 Management Policy into a framework
- Reviewed the results of the Group's quarterly Group Risk Management processes covering HKEX, the LME Group, and QME, which include top risks, reporting of the risk appetite metrics, summaries of issues and incidents, and clearing house liquidity and capital adequacy
- Reviewed the management confirmation on the adequacy and effectiveness of the Group's risk management and internal control systems

Operating an adequate and effective risk management and internal control system is essential for 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. In 2024, despite global fragility and continued uncertainty in the geopolitical environment, HKEX demonstrated strength and resilience, initiating enhancements to ensure prudent risk management in its business and operations, including furthering the collateralisation of the default fund in its cash market. Additionally, backup clearing broker contingency was made mandatory. HKEX Group Risk Management continued to evolve its organisational structure and implement proactive and appropriate risk management measures to align with the Group's business priorities. The risk management and internal control systems adopted by the Group remain adequate and effective in evaluating, determining and managing significant risks that the Group may take in achieving its strategic objectives.

Risk Committee Report

Risk Governance

The Group's risk governance structure is based on a "Three Lines of Defence" model, with oversight and direction from the Board, the Risk Committee, and Group management through the Executive Risk Committee (ERiC).

ERiC is delegated by the Management Committee to oversee and manage the Group's risk management activities and report to the Risk Committee on a quarterly basis. ERiC reviews and evaluates the Group's risk profiles and the associated risks in achieving the Group's strategic objectives; reviews the Group's risk and compliance policies; monitors the effectiveness of controls across all key risk types; and fosters risk management culture across the Group. ERiC also delegates specific tasks to management sub-committees for further discussion and handling when necessary.



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 Organisation for Standardisation (ISO) 31000 Risk Management – Principles and Guidelines. The following diagram illustrates the key processes adopted under the Group Risk Management Framework.

| Phase | Phase | Phase | Phase | Phase |
|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 |
| Establish Risk Context | Risk Identification | Risk Assessment | Risk Treatment | Risk Reporting & Monitoring |
| Recognising the Group's critical financial markets role, HKEX Group Risk Management establishes common risk assessment criteria. | Divisions and departments identify the risks that potentially impact the key processes of their operations. | Divisions and departments assess and score the risks identified along with their impact on the business and the likelihood of their occurrence. | Divisions and departments assess effectiveness of existing controls and provide treatment plans where required. | 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.

| Principal Risk | Description | Key Mitigations |
|-----------------------------|---|--|
| Strategic Risk | The risk of material adverse changes to the Group's business performance, development prospects and/or ability to deliver its objectives and strategic goals, caused by changes in the business, economic, regulatory or political environments in which the Group operates | Proactive monitoring of global exchange industry trends, competitors, climate change and innovations Proactive monitoring of and preparation for global and local changes in regulations affecting the Group Responsive project controls in place to allow strategic flexibility and timely resource allocation Proactive monitoring of geopolitical developments, including impacts of sanctions |
| Model Risk | The risk of adverse consequences arising from actions and decisions taken on the basis of incorrect or miscalculated model outputs and reports and such consequences may result in financial loss, ill-advised business or strategic decisions, poor risk capital deployment or reputational damage | Embedment of Model Risk Governance Framework A combination of internal and external model validation exercises on a regular basis Implementation of a Model Risk System for managing models and related validation findings |
| Market Risk | The risk resulting from adverse movements in market rates or prices such as foreign exchange rates, interest rates, or equity prices impacting a defaulted participant's and/or member's portfolio | Backtesting of margin and collateral haircut sufficiency Default contingent market risk managed through collateral management and margin collection Adequate financial resources to cover expected uncollateralised loss in each clearing house |
| Treasury Investment Risk | The risk of financial impact on the Group resulting from the Group's treasury activities | Investment capital at risk limited by investment and risk policies, and guidelines Exposures regulated through market risk stress loss limit FX and bond investment risk control dashboard facilitates weekly monitoring by the first and second Lines of Defence |
| Credit Risk | The risk that any counterparty will not settle an obligation in full value, either when due or any time thereafter | Default management and recovery procedures in place A credit risk management function in place Stress testing of collateral and margin deposits Assessment of financial impact on the Group from counterparty defaulting |
| Liquidity Risk | The risk of being unable to settle obligations as they fall due whether relating to the Group's or HKEX's actual or modelled cash flow requirements and/or regulatory requirements under extreme but plausible market conditions | Investment policy, restrictions, and guidelines in place covering Corporate Funds, Margin Funds, and Clearing House Funds Clearing liquidity risk management requirements met through established stress testing practices |

| Principal Risk | Description | Key Mitigations |
|----------------------------|---|--|
| Cyber & Technology Risk | The risk of operational disruption, financial loss or reputational damage due to cyber incidents (including cyber attacks) resulting from malicious unauthorised access, use, disclosure, disruption, modification, or destruction of data or systems The risk of operational impact, financial loss or reputational damage due to technology failures and/or operational inefficiencies in existing technologies and IT processes as well as the threat of new emerging and potentially disruptive technologies | Defence-in-depth cyber controls including segregation of critical systems Ongoing testing and evaluation of cyber and technology risk controls Risk advice on strategic projects Low latency, highly resilient IT service design Regular system performance monitoring, active capacity planning, maintenance, and drills (including disaster recovery) Adhering to the reputable National Institute of Standards and Technology (NIST) Cybersecurity Framework for benchmarking organisational cyber resilience and maturity |
| Third Party Risk | The risk that business operations or reputation of the Group are adversely impacted by third party actions or a failure by the third party in provisioning services to the Group in line with business agreements | Annual review of Third Party Risk Management Policy and Guidance Continuous enhancement of training programmes to elevate user awareness and knowledge Enhancement on systems to embed the elevated third-party risk management requirements, ensure compliance, and streamline the process |
| Data Risk | The risk of any unexpected or underestimated adverse impact on the Group as a result of limitations to or issues arising from its ability (or that of a third party) to effectively, appropriately or lawfully process, manage and/or protect its data in its ownership or possession | Establishment of the Group Data Governance Framework and development of the Enterprise Data Platform, the implementation of which will be governed by the Data Council (a sub-committee of the Management Committee of HKEX) Adoption of updated Information Classification Standard and Data Risk Appetite as supporting capabilities to enable the data governance framework Establishment of the Data Community to support data programme implementation for promoting data literacy within the Group |
| Human Capital Risk | The risk of operational impact as a result of not being able to retain key personnel, engage employees and develop new capabilities to strengthen the talent pipeline | Enhancement of the succession planning risk measures to cover all in-scope positions across the Group Ongoing monitoring of attrition trends across the Group and the time required to backfill these vacancies to provide a holistic view to management Prioritisation of strategic workforce planning, continuous training and development, employee engagement initiatives, and compliance monitoring |

| Principal Risk | Description | Key Mitigations |
|------------------------------|--|--|
| Operational Risk | The risk of financial loss, reputational damage or inability to provide services and products to customers resulting from inadequate or failed processes | Enhancement of the Operational Risk Management Framework, which offers a comprehensive overview of the structure for managing operational risks across the group |
| | | Continuous development of understanding and documentation of evolving internal processes, risks, and controls to improve operational resilience |
| | | Enhancement of the Operational Risk Management tool to facilitate a more holistic oversight of the connections among processes, risks, controls, issues, and incidents, enabling in-depth analysis |
| | | Maintenance of a confident state of preparedness to respond to and recover from business disruptions through regular drills on crisis management of major incident scenarios |
| Legal Risk | The risk of unexpected or uncertain application of a law or regulation to the Group's business or operations | Regular monitoring of legal and regulatory developments in the jurisdictions in which the Group has business activities or operations Where appropriate, internal and/or external legal advice sought on matters (including legal review of contracts) |
| Compliance & Conduct Risk | The risk of incurring penalties, financial loss and/ or loss of operating license resulting from the Group's, and/or personnel working for or on behalf of HKEX whose, failure to act in accordance with industry laws and regulations, statutory obligations, internal policies or prescribed practices | Regular review and enhancement of the Group Compliance Policies to align with laws, regulations and industry practices Enhancement of regular and targeted training Continuous enhancement and implementation of compliance policies monitoring to assess adequacy and effectiveness of controls |

More information about the climate-related risks faced by the Group and the Group's approach to other corporate responsibility topics that are material or relevant to its business, including but not limited to information security and anti-corruption, is set out in the 2024 Sustainability Report.

CHOW WOO Mo Fong, Susan

Chairman of the Risk Committee

Hong Kong, 19 February 2025