Risk Management

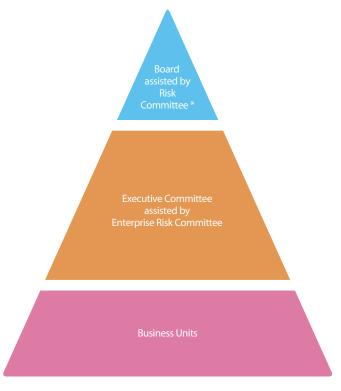
System Features

Business units across the Company embrace the Company's Enterprise Risk Management ("ERM") framework that underpins their day-to-day business activities. The framework provides a simple and effective management process to:

- Identify and review risks across all business units of the organization
- · Prioritise resources to manage risks
- Give management a clear view of the significant risks facing the Company
- Support decision making and project execution for better business performance

Enterprise Risk Committee ("ERC"), is overall accountable for the ERM policy and system implementation and continuous improvement.

The Company's risks are rigorously identified, assessed and managed. Each risk is evaluated on the basis of the likelihood of the identified risk and the consequence of the risk event, taking into consideration the control measures in place. A risk matrix is used to determine risk ratings (E1 – E4), with E1 being a very high risk and E4 being a low risk. The risk ratings reflect the required management attention and risk treatment effort, and take into account the Company's risk appetite. The highest category of risks, "E1", is subject to Board, Risk Committee and Executive Committee oversight.



See the Risk Committee Report (pages 152-153 of this Annual Report) for duties and work performed by the Committee in 2016

- Exercise ongoing risk oversigh
- Establish appropriate risk management strategies
- Oversee the ERM framework
- Review top risks and emerging risks
- Conduct annual review of ERM system effectiveness
- Executive Committee is overall accountable for ERM framework implementation and improvement
- Enterprise Risk Committee
 - Chaired by Legal and European Business Director
 - Comprises representatives from key business functions
 - Steers framework implementation and improvement
 - Reviews Company's top risks and key emerging risks
 - Reports to Executive Committee and Risk Committee quarterly, and to Board six-monthly
- Establish arrangements and implement risk management process consistent with the Company's ERM framework and policy
- Capture identified risks in risk registers for regular review and monitoring

The Board, with the assistance of the Risk Committee, oversees the Company's ERM framework and top risks, whereas the Executive Committee, with the support of the

While risk taking is inevitable in the course of business, the Company's appetite for risk varies, but is particularly low in certain areas, such as in relation to safety and the provision of a reliable transport service.

Management Process for Significant Risks

The Company takes proactive measures to identify, evaluate and manage significant risks arising from its recurrent and growth businesses and from the constantly changing business environment. Risk management strategies are developed for different areas including but not limited to construction, operations, finance, treasury, safety and insurance.

The ERM Team within the Legal and Secretarial Division maintains a list of running issues and risk drivers pertinent to the changing business and external environments, which is used to assist the ERC in identifying potential risks that may emerge. In addition, the ERC, the Executive Committee and the Risk Committee review the Company's enterprise risk profile and brainstorm emerging risks quarterly to ensure that key risks and those cutting across different areas of the business are captured.

Identify Risk*

- Existing businesses
- Changing external environment
- New projects or business ventures
- New and emerging issues or trends which may pose significant risks
- List of running issues and risk drivers for brainstorming
- Change in laws and regulations

Evaluate Risk

- Evaluate risk by estimating likelihood and consequence of the risk event
- Determine risk rating using the risk matrix (E1-E4)

Treat Risk*

- Take into account risk appetite
- Avoid risks where no appetite and possible to do so
- Mitigate review controls in place to evaluate adequacy and effectiveness and ensure owners in place to implement
- Transfer take out insurance to transfer risks where cost effective and efficient
- Accept once mitigated to an appropriate level

Report and Monitor Risk

- Capture risks in risk registers
- Periodic ERM reports to
 - Enterprise RiskCommittee
 - Executive
 Committee
 - Risk Committee
 - Board

^{*} Areas below are not exhaustive

Significant risks currently being managed by the Company include:

New railway and property projects	
Key Challenges	 Shortage of contractor workers Close proximity of construction activities to operating railway and urban developments Management of interfaces with different parties Adherence to the programme and cost of the projects Additional funding for Shatin to Central Link project
Key Controls	 Work with Government to facilitate recruitment of workers and applications for labour importation Close coordination with parties involved in interfacing activities and enhancement of design and construction methodology Training for contractor workers and staff on railway safety Stringent control of contingency funds
Major railway service incidents	
Key Challenges	In 2016, heavy rail and light rail experienced eight incidents within the Company's control (due to isolated system issues) which resulted in service disruptions of 31 minutes or more, the same as in 2015
Key Controls	Investigations / technical studies conducted on individual incidents to identify opportunities for continuous improvement
System crowdedness	
Key Challenges	Increase in passenger numbers by 31% since the merger with Kowloon-Canton Railway Corporation ("KCRC") in 2007
Key Controls	 Enhanced crowd management plans in place Signalling systems being upgraded to allow more frequent train services to be run in the longer term
Workforce transition	
Key Challenges	 Stream of staff reaching retirement age in coming years after MTR train service has been in operation since 1979 Manpower shortages in several job types
Key Controls	Proactive manpower sourcing and succession planning Skills and competency enhancement
System and staff safety	
Key Challenges	 Heavy Rail – escalator incidents remain the major contributor for passenger injuries on Heavy Rail Light Rail – operations sharing the same right of way with other road users
Key Controls	 Continue with escalator safety campaign More prominent signage or traffic signals at Light Rail road junctions in collaboration with Government
Asset upgrade and replacement	
Key Challenges	The "Rail Gen 2.0" programme is delivering a number of major concurrent projects, including the signalling system replacement and the introduction of new trains, to transform the current operating railway
Key Controls	A Works Management Office has been established to oversee the integrated management of the combined risk of these works

Process of System Effectiveness Review

On behalf of the Executive Committee, the ERC evaluates the effectiveness of the ERM system at least annually. The Legal and European Business Director, who chairs the ERC, presented the ERM system effectiveness review results for the year ended 31 December 2016 to the Executive Committee, which confirmed the review results, on 9 February 2017, and to the Risk Committee on 22 February 2017.

For the year ended 31 December 2016, the Risk Committee, with delegated authority from the Board, evaluated the effectiveness and adequacy of the Company's ERM system and concluded that it was effective and adequate, based on a number of review areas.

Factors considered during the review

- Areas suggested in the Corporate Governance Code for the Board's annual review of the risk management system
- Annual internal certification of risk management effectiveness by Department Heads and Heads of Subsidiaries / Associates
- Follow-up actions in light of the results of the 2015 ERM system effectiveness review
- Risk management of Subsidiaries and Associates
- Benchmarking / roundtable / peer group ideas exchange
- Results of the external review on the ERM system conducted in 2016 and the improvements identified
- Risk management training and promotion activities held in 2016



Conclusion

effective and adequate for the year ended 31 December 2016

Continuous Process Improvement

Key improvements in the ERM system implemented within 2016 include:

- Quarterly ERM Newsletters published to promote risk management over the year
- · Risk management knowledge sharing platform and support resources promoted at corporate and divisional levels
- Annual review of risk management system effectiveness of subsidiaries established, and extended to cover operating
 associates in Mainland China and overseas
- Computer-based training programme (English and Chinese) rolled out for general staff and supervisors on corporate ERM policy, risk management principles and staff behaviours conducive to a proactive risk management culture
- Risk Awareness Week event held for the third year to promote risk awareness across all levels of the organization, including half-day risk management workshops attended by 120 supervisors / managers

We keep ourselves abreast of the latest developments in risk management through reviews with users, cross-industry benchmarking and experience sharing through various channels:

- Sharing by external risk experts during the annual Risk Awareness Week
- · Sharing and learning of best practice through the ninth UK ERM Roundtable and the eighth HK ERM Roundtable meetings
- Cross-learning among risk managers from different business units, including subsidiaries and associates in the Mainland of China and overseas, through the in-house "Audit & Risk Forum" held in Hong Kong in June 2016 and periodic teleconference meetings