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 organisation, and prioritise resources to manage those risks that arise. It also gives management a clear view of the significant risks facing the Company and is used to support decision making and project execution, in turn helping to deliver better business performance.

The Board, on an ongoing basis and with the assistance of the Risk Committee, oversees the Company's ERM framework, reviews the Company's top risks and emerging risks and conducts an annual review of the effectiveness of the ERM system. The duties of the Risk Committee and work performed during the year are set out in the Risk Committee Report (pages 126 to 127) of this Annual Report.

The Enterprise Risk Committee ("ERC"), which is chaired by the Legal Director & Secretary and comprises management representatives from key business functions, has accountability for the ERM framework. The ERC steers the implementation and improvement of the framework, reviews the Company's top risks and key emerging risks every quarter, and also reports the key risks to the Executive Committee and the Risk Committee, on a quarterly basis, and to the Board on a six monthly basis.

Business units establish their own arrangements for implementing a risk management process consistent with the principles of the Company's ERM framework and capture identified risks in risk registers which are reviewed regularly. Each risk is evaluated by 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), E1 being a very high risk and E4 being a low risk. The risk ratings reflect the required management attention and risk treatment effort.

The Company's risks are rigorously identified, assessed and managed. 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.

All risks are ranked and their treatment is determined by a combination of likelihood and consequence according to a risk matrix, which takes account of risk appetite.

The highest category of risks, "E1", is subject to Board, Risk Committee and Executive oversight.

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. Various risk management strategies have been established by the Board taking into account the advice of the Executive Committee to identify, assess and mitigate risks, including in the areas of construction, business operations, finance, treasury, safety, legal / regulatory, and political / reputational risks.

The Executive Committee also ensures that the Company has appropriate insurance coverage in place to transfer risks, where it is effective and cost efficient to do so.

When a new project or business venture is initiated, and as new and emerging issues are perceived to pose significant risks to the well-being of the existing business, the business units will conduct risk identification and devise corresponding mitigation measures. The ERM Team within the Legal & Procurement Division also maintains a list of running issues and risk drivers pertinent to the changing business environment and external environment, which assists the ERC to identify potential significant risks that may emerge.

The ERC, the Executive Committee and the Risk Committee review the enterprise risk profile and brainstorm emerging risks quarterly to ensure significant risks are captured. Identified significant risks are then evaluated using the risk matrix, and risk control owners are identified to follow through the implementation of risk controls.

Significant risks currently being managed include:

- **Corporate reputation and trust.** As a company which is subject to continuous public scrutiny, events such as programme delays and cost overruns on our new railway projects, train service disruptions and the enforcement of the Company's luggage size restriction all impact on the Company's reputation. An enhanced communication plan, including regular media briefings and community engagement, has been implemented to provide more timely and transparent information to stakeholders on key issues.
- **New railway projects programme and cost.** As the Company has made known to the public before, its major new railway projects in Hong Kong continue to face various challenges, including a shortage of workers and the close proximity of construction activities to the operational railway and urban developments. The programmes and costs to completion for each of the new railway projects were updated in 2015 with more certainty, other than the Shatin to Central Link, for which the review will be completed later in 2016.

- **Major railway service incidents.** In 2015, our heavy rail service experienced 13 incidents (seven incidents under the Company's control) which resulted in service disruptions of 31 minutes or more, compared to 12 such incidents in 2014 (nine incidents under the Company's control). The root causes of these delays were generally associated with isolated system issues. For individual incidents, investigations or technical studies were conducted to identify opportunities for continuous improvement.
- **System crowdedness.** The patronage on our heavy rail network has continued to grow over the years, resulting in system crowdedness. In 2015, heavy rail patronage was 1.9% higher than in 2014. Crowded trains and longer on-platform waiting times are being managed to enhance customer satisfaction. The Company has undertaken to upgrade the signaling system on many of its lines, which will allow more frequent train services to be run in the longer term. The Shatin to Central Link, when commissioned, will also help to increase capacity and to re-distribute the patronage in the network and ease the crowdedness.
- **Workforce transition and increased manpower needs.** After having operated for more than 35 years, a stream of our staff will reach retirement age in the following few years. At the same time, additional manpower will be required to prepare for the opening of the new extensions. To manage the workforce transition and tackle manpower shortages in specific scarce job disciplines, various measures, including proactive manpower sourcing, advanced succession planning, skill and competency enhancement and, where appropriate, deferred retirements will be considered.
- **System and staff safety.** The Company's continued efforts to improve safety resulted in a 6.1% reduction in reportable events on the Hong Kong heavy rail network in 2015. Escalator safety remains a focus area and promotion of passenger safe travel behaviours on escalators will continue. Our Light Rail system is susceptible to collisions with road vehicles, bicycles and pedestrians due to the sharing of the same right of way with other road users. In 2015, we had seen major improvement in the number of cases of Light Rail/road vehicle collisions compared to that in 2014. However, collisions with pedestrian in 2015 had increased. The Company has instituted different measures aiming to improve the safety performance of Light Rail, including defensive driving skills training for train and bus captains, development and implementation of more prominent signage or traffic signals at road junctions, and engineering and operational controls. Separately, the number of staff assault cases has increased over the past year and, for better staff safety protection, various measures, including wider use of body-worn video cameras, conflict management training and counselling services, have been implemented.
- **New railway projects interfacing with the operating railway.** As the major new railway projects progress, there will be more interfacing works with potential impact on the operating railway. This risk is being managed through strengthened collaboration between the Operations and the Projects teams, including the implementation of risk control measures, and surveillance and monitoring arrangements before commencement of the relevant work.
- **Asset Upgrade and Replacement.** The Company has previously announced the "Rail Gen 2.0" programme, in relation to which a number of major projects, including signaling system replacement, introduction of new trains and mixed fleet operation, will be implemented concurrently in the next ten years in order to transform the current operating railway. The Company recognises the potential aggregated risk of these major projects and has established a Works Management Office to oversee the integrated management and the combined risks of the works, with regular reports to the Board Capital Works Committee and the Board on forward-looking risks and mitigations.
- **Performance of subsidiaries and associates.** The Company has a number of subsidiaries and associates which operate independent businesses in Hong Kong, the Mainland of China and overseas. A management governance framework has been implemented to ensure an appropriate level of control and oversight as a shareholder of these subsidiaries and associates. The control and oversight is exercised in a number of forms, e.g. imposition of internal controls, requirements for consent or consultation, reporting requirements and assurance. Our financial return on investment outside of Hong Kong is also subject to exchange rate volatility.

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 Director & Secretary, who chairs the ERC, presented the ERM system effectiveness review results for the year ended 31 December 2015 to the Executive Committee, which confirmed the review results on 4 February 2016, and to the Risk Committee on 26 February 2016.

For the year ended 31 December 2015, 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 the following considerations:

- Changes in the nature and extent of significant risks and responsiveness to changes in business / external environment;
- Scope/quality of management's ongoing monitoring of risks, including "deep-dive" reviews and other presentations on selected risk areas by the relevant Members of the Executive Committee and managers;
- Extent and frequency of communication of risk monitoring results to the Risk Committee and the Board;
- Results of annual internal certification of risk management effectiveness within the Departments and Business Units;
- Results from the internal audit report on the ERM framework;
- Results of the in-house ERM 2015 survey;
- Implementation of risk management in subsidiaries and associates; and
- Benchmarking / roundtable / peer group ideas exchange.

Continuous Process Improvement

The ERC conducted a thorough review of the ERM framework in mid-2014 and identified a number of enhancement initiatives. The majority of these initiatives have been implemented in 2015, for example, the computer-based ERM training programme has been rolled out to all newly promoted or recruited managers, and a series of ERM workshops were attended by over 110 department heads and senior managers, at which the participants discussed risks relating to the Company's businesses and shared ideas in raising risk awareness. In October 2015, the Company launched its "Risk Awareness Week" for the second year to continue to promote risk awareness across all levels of the organisation. In November 2015, the ERC launched an internal ERM survey to review the general awareness and acceptance of risk management practices among 260 managers and senior supervisors and the overall results were positive, showing a high level of risk awareness and risk management acceptance.

We also keep ourselves abreast of the latest developments in risk management through reviews with users, cross-industry benchmarking and experience sharing. As part of the "Risk Awareness Week", external risk experts were invited to share best practices on risk management with executives, senior managers, members of the ERC and divisional risk co-ordinators.

Key activities undertaken in 2015 include:

- Sharing and learning of best practice in ERM implementation through the eighth UK ERM Roundtable and the seventh 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 2015 and periodic teleconference meetings; and
- Conducting regular meetings with our insurance consultant for risk analysis.