

TYPES OF RISK AND MANAGEMENT METHOD

Telkom identifies and manages social and political, macroeconomic, disaster and other macro risks in Indonesia. Besides, Telkom also identifies and manages operational, financial, legal and compliance risks, regulations, inherent risks in the fixed and cellular telecommunications business. Besides, Telkom conducts quantitative and qualitative disclosures of market risk. The risks managed by Telkom can be seen as follows.

Type of Risk	Risks That Is Faced	The Impact on Telkom	Mitigation/ Risk Management
a. Risks Related to Indonesia			
Political and Social	The disruption of political stability and social instability to specific issues.	Have negative impact to the business, operation, financial condition, business proceeds and prospect as well as market price for securities.	<ol style="list-style-type: none"> 1. Monitoring of the influence of social political instability to the disruption of operational/ service. 2. The maintenance of awareness through the improvement of safety & Security functions.
Macro Economy	<p>The change of global, regional, or Indonesian economic activities.</p> <hr/> <p>The fluctuation of Rupiah Exchange rate.</p> <hr/> <p>The increase of loan interest rate.</p> <hr/> <p>The decrease of Government or Company's credit rating.</p>	<ol style="list-style-type: none"> 1. Have the impact on the business, financial condition, business result or business prospect. 2. Have a material adverse effect to the business, financial, condition, business proceeds or business prospect. 	<ol style="list-style-type: none"> 1. Monitoring of the influence of macroeconomy to the change to increase the expense through Cost Leadership program. 2. To look for the opportunity to increase the spending of APBN according to the government focus (Maritime, Tourism, Energy, Transportation, etc).
Risk of Disaster	Flood, thunder, storm, earthquake, tsunami, volcano eruption, epidemic, fire, drought, power shut down and other event beyond Telkom's control.	Disrupting its business operations and give negative impact to the financial performance and profit, business prospect as well as market price of securities.	<ol style="list-style-type: none"> 1. Transfer of risk by using the insurance of assets to anticipate the natural disaster and fire. 2. Coordination with ASKALSI (Indonesian Sea Cable Association) to secure SKKL. 3. Preventive & corrective action by preparing the disaster recovery plan and crisis management Team.

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Other Risks	<p>Indonesian corporate information disclosure standard is significantly different than what is implemented in other countries including the United States of America.</p> <p>The difference in the regulation of dividend determination.</p> <p>The issue on the legal certainty in Indonesia and United States of America including the implementation of law.</p> <p>The possibility on the difference in the interest of controlling shareholders with the interest from other shareholders.</p>	Disrupting its business operation and giving the negative impact to the financial performance and profit, business prospect as well as market price of securities.	The use of a competent legal consultant that has experience with the issues on corporate law in other countries particularly the United States of America.
b. Business Related Risks			
Operational Risk	<p>The failure in the sustainability of network operation, main system, gateway on Telkom's network or other operator's network.</p> <p>Threat of physical and cyber security, such as theft, destruction, or other action.</p> <p>Risk regarding internet service.</p>	<p>Has the negative impact to the business, financial condition, proceeds from the operation and business prospect.</p> <p>Has the negative impact to the business, financial condition, result from the operation materially.</p> <p>May face a lawsuit and damage the reputation.</p>	<ol style="list-style-type: none"> 1. Implementation of BCM, BCP, and DRP. 2. Certification of Integrated Management System (IMS) for infrastructure management. 3. The upgrade of Preventive Action in the form of Vulnerability Assessment and Penetration Test periodically. 4. Monitor and Identify all types of attacks in the real-time as well as to choose and conduct a necessary action immediately. 5. Preparing the recommendation to handle cyber attack based on the historical incident analysis. 6. Intensive coordination with relevant parties to handle the cyber attack. <p>To be more prudent in the preparation of contract with content provider partner.</p>

Theme	Highlight Telkom	Report of The Board of Commissioners and Directors	About Telkom	Management Discussion and Analysis
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Type of Risk	Risks That Is Faced	The Impact on Telkom	Mitigation/ Risk Management
	Leak of revenue due to the internal capability weakness or external factor.	Has a negative impact to Telkom's business result.	<ol style="list-style-type: none"> 1. Acceleration of leak detection time and revenue indicated as an external fraud in real-time. 2. Monitoring the critical point of the leak of revenue especially on the rejected billing call.
	New technology.	Has an impact on the competitive power.	<ol style="list-style-type: none"> 1. The preparation of Technology Roadmap by taking into account future technologies and the possible implementation of the competitor's technologies. 2. Acceleration of IDN (Indonesia Digital Network) program to support future services.
	The limit of operation period, damage or ruin, delay or failure to launch, or the revocation of Satellite license.	Can create loss to financial condition, operation result and capability to give services.	<ol style="list-style-type: none"> 1. The planning to change the Satellite of which operation period will be immediately expired. 2. The insurance of Satellite operation during the active period. 3. Insurance for Manufacturing and Launching of new Satellite. 4. Developing the understanding with Regulator concerning the Satellite operation by Telkom.
Financial Risk	Interest Rate Risk.	Has an adverse effect to the business, financial condition and result from the operation.	Interest rate swap contract from the float interest rate to become the fix interest rate upon certain loan term.
	Foreign exchange rate risk.	Has negative impact on the financial condition or result from the operation.	Placement of time deposit and hedging to cover the fluctuation risk of foreign exchange.
	The limit to fund capital expenditure.	Has a material adverse effect to the business, financial condition, operational performance, and business prospect.	Maintaining and improving the Company's performance to obtain the trust from National or Global fund institution/source.

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Legal and Compliance Risk	Penalty/fine by KPPU concerning the price-fixing and the occurrence of class action.	Reducing Telkom's revenue and has negative impact to the business, reputation, and profit.	Strengthening Legal Review towards corporate action plan or certain contract.
Regulation Risk	The change of Indonesian or International Regulation.	Has the impact on the business, financial condition, operational performance, and business prospect.	<ol style="list-style-type: none"> 1. Analysis on the impact of the regulation plan towards the industry in general and Telkom in particular. 2. Giving inputs so that the regulation that will be stipulated will give positive impact to the Company and industry.
The risk concerning Fix and Mobile Telecommunication Business	Losing the cable phone customers and revenue from the service of cable phone voice call.	Has a material adverse effect on the result from the operation, financial condition, and Telkom's business prospect.	<ol style="list-style-type: none"> 1. Improving QoS - Quality of Service for cable phone customers. 2. Giving Value Added Service.
	Competition on the internet service (Fixed Broadband).	Has a negative impact on the business, financial condition operational performance and business prospect.	<ol style="list-style-type: none"> 1. Strengthening the perception and quality of IndiHome as New Digital Life Style. 2. Acceleration on the launching of the infrastructure for fixed broadband service.
	The competition on mobile service.	Has a negative impact on the business, financial condition operational performance and business prospect.	<ol style="list-style-type: none"> 1. Acceleration of the launch of the infrastructure for 4G service. 2. Improving QoS - Quality of Service.

RISK MANAGEMENT SYSTEM'S REVIEW ON THE EFFECTIVENESS

During the reporting period, the implementation of Telkom's risk management system was effective in managing various risks to support every policy and business process at Telkom and its subsidiaries. Telkom uses applications (tools)/risk management information systems as supporting infrastructure for the effectiveness of risk management systems, including:

1. Generic Tools Enterprise Risk Management Online (ERM Online) which is used by all units to manage Risk Assessment.
2. Specific Tools for certain risk management such as:
 - a. Fraud Management System (FRAMES) application is used as an early detection system for the possibility of Customer Fraud.
 - b. i-Library application managed by the Service Operation Division and to be used to manage the documentation system of the Integrated Management System.
 - c. SMK 3 Online application managed by the Security & Safety Unit for Health and Safety documentation management.