

# Risk Management

The global energy industry is facing various risks due to rapid changes in the business environment. Investors are demanding solutions to the risk the traditional oil, gas producers and refineries are facing due to climate change. Increased social interest in renewable energy and other environmental-friendly energy as well as advances in technology can greatly influence the future of the traditional energy industry and the future profit model. SK innovation will systemize the major risks we face to create the optimal way to monitor and respond to each risk.

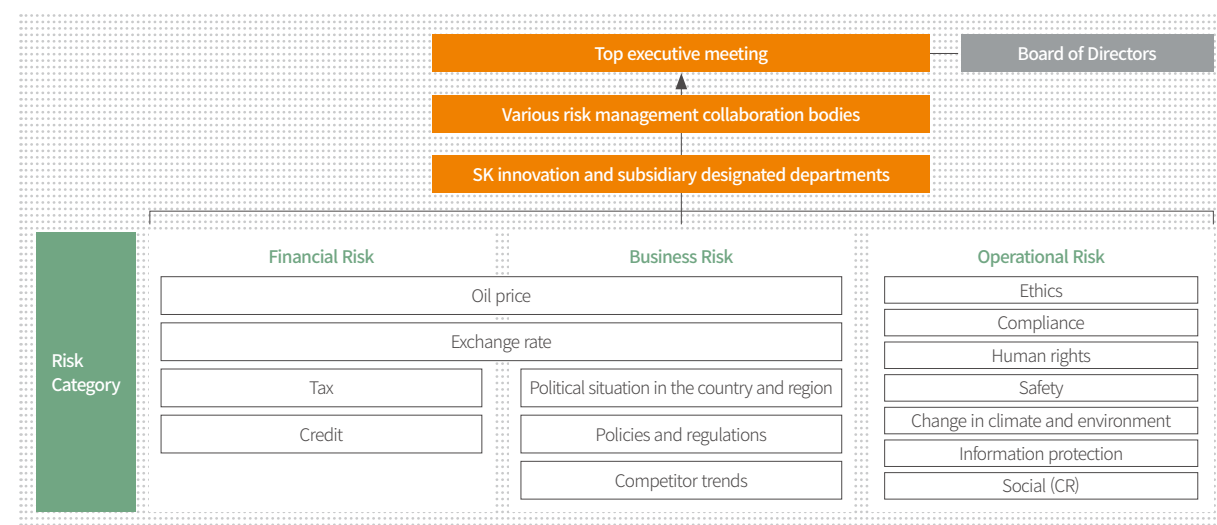
## Risk Reporting and Governance

SK innovation manages risk systematically by categorizing risk into finance, industry and operation. Designated departments of SK innovation and subsidiaries manage industry risk. Issues that require executive decision-making are discussed in the risk collaboration body where the subsidiary CEO and department executives participate. Each designated department manages operational risk including subsidiary risk of the company they belong to. When executive or subsidiary decision-making is necessary, the issue is raised during top executive meetings. Furthermore, as SK innovation and its subsidiaries are strongly connected in business operations, several major risks are discussed in top executive meetings where the CEO of SK innovation and five subsidiaries participate and necessary issues are reported to the BOD.

## Risk Monitoring

SK innovation conducts analysis and monitoring optimized to each risk factor. On financial risk such as oil price and exchange rates that immediately impact business performance, SK innovation and subsidiaries each analyze short-term direction and medium- to long-term trends based on various economy indices to set and manage a standard appropriate to the according risk factor. In addition, for industry or operational risk, we monitor relevant legislations, policy trends and opinions of relevant officials on a daily basis and share the information through our newsletter and intranet so that all our employees understand major trends and invest voluntary effort to prevent risk.

### Risk Management System



## Emerging Risk

SK innovation regularly analyzes environmental and social changes to draw long-term risk factors that influence business operations. We then go on to build and execute an effective solution.

| Emerging Risk             | Various global regulations and fluctuating oil price   | Fairness of business relations and product sales process   | Climate change   |
|---------------------------|--|--|--|
| <b>Business Context</b>   | The oil price continued to rise from early 2015 and recorded USD 76 per barrel (based on WTI) in October 2018. However, market uncertainty still lingers such as trade protectionism trend and the geopolitical situation of the Middle East. The oil price depends on the global economy as well as supply and demand which are influenced by force majeure, issues with operating business sites and other factors. The traits of regional government also play a big role. Countries like Korea rely heavily on oil imports and are easily influenced by the governments of countries that provide oil. In addition, global regulations are becoming stricter which will increase the potential impact of policies set by the governments in these regions. | Fair trade including ethical operations is a basic requirement to conduct business activities. Importance of fair trade is growing in transactions with oil companies as well as relations between oil companies and service stations and rationality in oil price setting that can arise from these relations. SK innovation holds a particular market share which results in high transaction volume and various business risks.   | Since the adoption of the Paris Agreement in December 2015, interest in climate change is growing in all sectors of the environment and society. Negative views on the use of fossil fuels which is the cause of greenhouse emissions and concerns about fine dust are resulting in more and more interest on the topic every day. The use of fossil fuels will ultimately decrease as governments and automobile companies are implementing various policies like promoting sales of electric cars and cutting sales of internal-combustion engines.  |
| <b>Risk Impacts</b>       | The oil price and production cost of petroleum products change depending on the global economy. This can lead to fluctuations in profit, cash flow and profit structure. Change in oil price since order date to receiving date can cause crucial financial influence due to heavy reliance on oil imports. Various government regulations such as oil imports and sales, or product standards for petroleum goods must be considered for business operation. Violating relevant policies such as harmful emissions can result in financial damage. Furthermore, Europe, US as well as emerging nations like China are strengthening relevant regulations which is yielding new opportunities in business sectors such as lubricants production.               | SK innovation can engage in business with its subsidiaries and various affiliates of SK Group. These transactions may ultimately violate relevant monopoly regulation and fair trade policies. Unfair support between affiliates can lead to punishment and fines which are not only a financial problem, but can be detrimental to the reputation of the business. Furthermore, the distrust consumers have towards oil price fluctuations can negatively impact brand loyalty which calls for active communication regarding this issue. | Oil refining, transporting, distributing and all relevant areas require increased investment and higher production cost in order to decrease greenhouse emissions. The World Bank has announced its termination of oil mining from 2019 and we expect other long-term financial risks to come along with climate change. Korea has also implemented the emissions trading policy resulting in emissions credit purchasing costs as well as cut in investment and increasing production costs. As the government also strengthens regulations to eliminate fine dust, investment in facilities is continuing to increase. Also, the government's policy to spread electric cars is resulting in the production of electric, hydrogen and hybrid cars which can replace gasoline and diesel cars made by automobile manufacturers. This can cause a negative impact like the continuing fall of fossil fuel sales. However, we also anticipate fast growth in the electric car battery market thanks to the rapidly growing electric car market in Korea and abroad. |
| <b>Mitigation Actions</b> | We plan to secure business competitiveness to grow into a global trading company by implementing our optimization method that utilizes market dynamics in diverse methods. In addition to building new desulfurizing facilities to meet stronger government regulations in the region, we are continuing to develop high-quality lubricants.   | SK innovation has made it mandatory for any affiliates engaging in business to cooperate with our business compliance team to regularly monitor potential for unfair support. We forecast that regulations on unfair trade acts between conglomerates and medium- to small-size companies will become stricter. In response, we are gradually strengthening our watch on cases of abusing superior authority and other unfair trade acts between suppliers.  | SK innovation has forecast risk depending on climate scenarios to design a response strategy in order to respond efficiently to emissions trading. We have created a procedure for emissions trading operation that stipulates how to comply with or respond to legal obligations regarding emissions trading which is running today. We are also securing carbon credit through external operations to improve energy efficiency in work sites, transform fuel source so that we can stably fulfill our duty to actively cut greenhouse emissions and submit carbon credit. In addition, we are increasing research and investment in developing long-distance electric car batteries and next generation batteries as well as building production facilities to respond in advance to the era of energy transformation.  |