



新光金控

Shin Kong Financial Holdings

TCFD

Shin Kong Financial Holdings

Climate-related Financial Disclosure Report

2022



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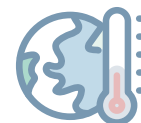


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01 Preface

1-1 SKFH Climate Mindset

According to the Global Risks Report 2023 published by the World Economic Forum in January 2023, the top three of the 10 global risks for the next decade are "failure of climate change mitigation," "failure of climate change adaptation," and "natural disasters and extreme weather events." It is evident that the impact of climate change on the planet has become a global risk tied to the flow of capital in financial markets.

In response to the trend of net-zero and decarbonization, Taiwan's National Development Council officially published "Taiwan's Pathway to Net-Zero Emissions in 2050", which based on the four major transition strategies of "Energy Transition", "Industrial Transition", "Lifestyle Transition", and "Social Transition". Transition requires technological R&D and economic growth, and both require sufficient financial support. Therefore, financial institutions have an important responsibility on the road to achieve net-zero society by 2050. It is the corporate responsibility of Shin Kong Financial Holding (hereinafter referred to as "SKFH") to make good use the power of capital to drive the industry towards a net-zero transition.

In order to enhance climate resilience, strengthen adaptability in the face of extreme climates, and reduce the operational impact caused by disasters, SKFH has introduced the Task Force on Climate-Related Financial Disclosures (TCFD) framework to disclose the financial impact of climate change on companies. In response to the trend of net zero decarbonization of countries around the world after COP26 and effectively achieve the goal of financial decarbonization, SKFH also inventoried the GHG emissions and intensity of investment and lending portfolios to understand the indirect carbon emissions we financed, and established high carbon-intensive industry management guidelines and monitoring mechanism to help the investment and lending department of the subsidiaries to manage climate risks.

SKFH Sustainable Finance Milestone

- 2016**
 - SKL signed the "Stewardship Principles for Institutional Investors" compliance statement.
- 2017**
 - SKIT signed the "Stewardship Principles for Institutional Investors" compliance statement.
- 2018**
 - SKFH officially signed in support of the Task Force on Climate-related Financial Disclosures (TCFD).
 - SKB signed the "Stewardship Principles for Institutional Investors" compliance statement.
 - MLS signed the "Stewardship Principles for Institutional Investors" compliance statement.
- 2020**
 - Rated in the management level B by the Carbon Disclosure Project(CDP).
 - Self-compliance with the Principles of Responsible Investment(PRI).
 - Self-compliance with the Principles of Responsible Banking(PRB).
 - Self-compliance with the Principles for Sustainable Insurance (PSI).
- 2021**
 - Selected as a DJSI world index's stock component.
 - Rated in the management level B by the CDP
 - SKB signed the Equator Principles.
 - Joined the Asia Investor Group on Climate Change(AIGCC).
 - Founding Member and supporting organization of the Taiwan Alliance for Net Zero Emission
- 2022**
 - Selected as a DJSI world index's stock component.
 - Rated in the leadership level A- by the CDP
 - SKFH officially signed the Science Based Targets initiative commitment letter to set science-based targets.
 - MLS, the first company in Taiwan, has developed ESG-related stock research reports.
 - First-ever publication of climate-related financial disclosure report.

1-2 Climate Metrics and Targets

► Net-Zero Carbon Emissions Commitment

Following the global trend of net-zero emissions, Taiwan's National Development Council announced the "Taiwan's 2050 Net-Zero Emission Pathway" in March 2022, promoting four major transition strategies and building two basic environments, hoping to gradually achieve a sustainable society with net-zero emissions in 2050.

To align with Taiwan's net-zero policy, in addition to reducing carbon emissions in its operations, Shin Kong has leveraged its core functions to establish climate change mitigation and adaptation indicators and targets for investment and lending, regularly tracking and implementing carbon reduction measures. The aim is to effectively manage climate risks and opportunities and support Taiwan's sustainable transition.

SKFH implements the spirit of sustainable finance, follows the national policy to plan carbon reduction strategies and action plans, and set net-zero emission targets with reference to the guidelines of the Science-Based Targets initiative to achieve the Paris Agreement controlling the global temperature increase within 2°C in the end of this century, and under 1.5°C with ambitions.

Metrics	Carbon reduction actions: Greenhouse gas emissions (Scope 1, Scope 2)	Green finance	Decarbonization of investment and lending portfolio
Base year	2022	2020	2022
Short and medium-term targets (2026)	<ul style="list-style-type: none"> By 2025, per capita greenhouse gas emissions, water consumption and waste will be reduced by 2% per year 	<ul style="list-style-type: none"> SKL: The growth rate of project investment in green energy-related businesses is 400%. SKB: Promote the project financing of solar power plants, and increase the total lending balance to the target year by NT\$ 4 billion Issuance of sustainable bonds 	<ul style="list-style-type: none"> Use the PCAF methodology to complete the inventory of financed emissions (tCO₂e), measure the amount of assets exposed to carbon-intensive industries in the investment and lending portfolio, and formulate carbon reduction strategies Sign the SBTi commitment and set SBT carbon reduction target. Establish a schedule for the phase-out of thermal coal and unconventional oil and gas -related industries Engage with investees and borrowers through questionnaires, telephone interviews, personal visits, participation in annual general meetings, and exercise of voting rights, etc., so that the engaged companies can understand the importance of setting carbon emission reduction target and take climate-related actions to achieve low-carbon transitions. Hold ESG net-zero transition customer briefing sessions to promote green lending irregularly.
Long-term targets (2031)	<ul style="list-style-type: none"> 100% carbon neutrality of all headquarters and operation locations by 2030 Accumulative carbon reduction of 34% in 2030 	<ul style="list-style-type: none"> Continue to increase ESG-themed and green-related investment and lending amount 	<ul style="list-style-type: none"> By 2030, cease direct project investment and lending of not only thermal coal as well as unconventional oil and gas projects (including new projects or expansion of existing projects) but also projects from companies which are still expanding related businesses.
Achievement in 2022	<ul style="list-style-type: none"> Greenhouse gas emissions Scope 1: 3,279.60 tCO₂-e Scope 2: 28,211.66 tCO₂-e 	<ul style="list-style-type: none"> SKL: Project investment in green energy increased by 294% growth compared with the base year. SKB: The total balance of solar power plant project financing increased by 181.55%. Undertook 4 cases applying the Equator Principles 	<ul style="list-style-type: none"> Financed absolute emissions: 2,442,865 tCO₂-e Financed Emission Intensity: 3.1 tCO₂e/TWDMM, Revenue Officially signed the SBTi Commitment Letter 76 companies have been distributed questionnaires, with a response rate of 39.5% SKB held the first customer briefing on net-zero transition in the North Taiwan

► Decarbonization strategy of investment and lending portfolios

SBT emission reduction target

SKFH is committed to sustainable finance. In 2022, we officially signed the Science Based Targets initiative commitment letter to seek validation to the net-zero 2050 target and join the international effort to reduce emissions. Following the SBT setting guidelines for financial institutions, we have developed decarbonization strategies and used the sector decarbonization approach and portfolio coverage approach to set intermediate emissions reduction target for our investment and lending portfolios with base year 2022 and target year 2030, which submitted for verification in June 2023 to achieve the Paris Agreement controlling the global temperature increase under 2°C in the end of this century.

SKFH's SBT emissions reduction target (Under review)	
Operations	<ul style="list-style-type: none"> Reduce absolute scope 1 and scope 2 GHG emission 34% by 2030 from a 2022 base year.
Investment	<ul style="list-style-type: none"> The Portfolio Coverage Approach 50% of the listed equity and bonds portfolio by invested value will have set science-based targets by 2027 from a 2022 base year.
Loans	<ul style="list-style-type: none"> The Portfolio Coverage Approach 31.6% of the corporate loan portfolio (long-term debt) by loan value within the fossil fuel, service buildings, and other long-term corporate loan sectors setting science-based targets by 2027 from a 2022 base year. The Sector Decarbonization Approach Reduce GHG emissions from the power sector within its corporate loan portfolio 40.8% per MWh by 2030 from a 2022 base year. Reduce the electricity generation project finance portfolio GHG emissions 52.1% per MWh by 2030 from a 2022 base year. Reduce the commercial real estate portfolio GHG emissions 49.8% per square meter within its corporate loan portfolio by 2030 from a 2022 base year.

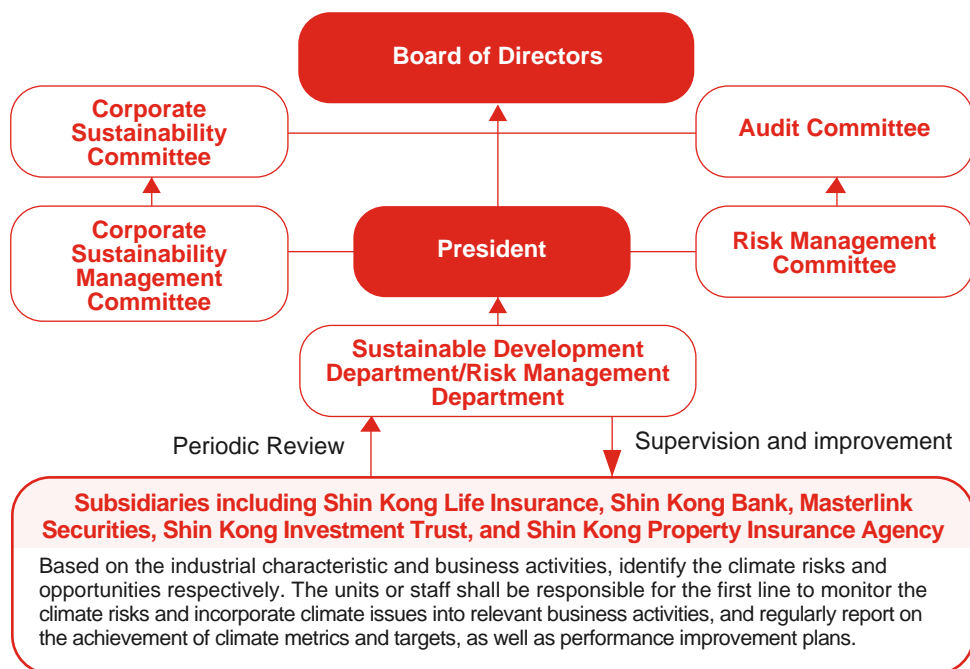


02 Climate Governance and Strategy

2-1 Climate Governance Structure

SKFH has established a comprehensive climate governance framework, with the Board of Directors serving as the highest decision-making body for climate risk governance within SKFH. A board level functional committee, the Corporate Sustainability Committee, is set up under the Board of Directors to oversee the implementation of SKFH' climate-related strategies, risks and opportunities. The Corporate Sustainability Committee is composed of all directors.

To implement climate risk management, SKFH founded the Corporate Sustainability Management Committee and the Risk Management Committee to jointly assess climate-related risks and opportunities, and formulate the overall climate risk management of the group. And the Sustainable Development Department and Risk Management Department jointly develop the SKFH's climate risk management and promote the management of climate risks with the active participation across all subsidiaries. Regular assessments are conducted to control potential impacts and protect shareholder values. The structure is as follows:



Organizations	Chair/Convener	Frequency of meetings	Role in climate governance
Board Meeting	Chairman	At least twice a year	The highest decision-making body for climate risk governance, taking the ultimate accountability of climate risk management.
Corporate Sustainability (CS) Committee	Directors or independent directors appointed by the Board of Directors after being nominated by the chairman.	At least once a year, currently twice a year	This unit is under the Board of Directors and is responsible for setting the core strategies for the Group's sustainability and climate risk management, overseeing climate change mitigation and adaptation efforts, as well as monitoring the progress of climate-related targets.
Audit Committee	Directors or independent directors appointed by the Board of Directors after being nominated by the chairman.	Quarterly	This unit is under the Board of Directors and oversees the Group's effectiveness of risk management
Corporate Sustainability Management Committee	SKFH President	At least once a year, currently twice a year	The core unit responsible for promoting and implementing corporate sustainability strategies reports to the Corporate Sustainability Committee and the Board of Directors.
Risk Management Committee	SKFH President	Quarterly	The core unit responsible for promoting and implementing climate risk management that reviews the results of climate risk assessment and analysis projects, reports to the Audit Committee and the Board of Directors, and formulates comprehensive climate risk management measures for the Group.

2-2 Relevant Measures Practices

SKFH incorporates climate risk management and implementation guidelines into the "Sustainable Financial Policy" and "Risk Management Policy", and we continue to improve the interaction between various risk management aspects of the financial industry and climate change risks, update and revise the Group's sustainable financial policies and various risk management methods, define power and responsibility units, risk identification, risk measurement and supervision and control mechanisms, to strengthen climate-related risk management.

Policy Name	Risk Management Policy	Sustainable Finance Policy	
Focus specification	<ul style="list-style-type: none"> Incorporate climate change risk into group risk management 	<ul style="list-style-type: none"> For industries with high carbon emissions, such as thermal coal and unconventional oil and gas, the negative impact of climate change on counterparties should be carefully reviewed. For the above-mentioned industries, after inspection, those included in the exclusion list shall not be allowed to add new transactions without any improvement. A goal of zero coal investment and lending by 2045 has been established. Clearly define the decision-making processes for investments, financing, and life insurance, as well as voting and engagement policies, with consideration for ESG factors. Environmental (E) factors encompass climate change, biodiversity, and environmental pollution. 	
Guideline Name	Risk Management Guideline	Financed Emissions Management Guideline	Large Exposure Management Guideline for Single Country, Region and Industry
Focus specification	<ul style="list-style-type: none"> State the definition of climate-related risks Identify, measure, monitor and control principles 	<ul style="list-style-type: none"> Regularly review the counterparties of thermal coal and unconventional oil and gas transactions every year, and the related business revenue exceeding 50% of the total revenue will be prioritized for engagement. 	<ul style="list-style-type: none"> Set the exposure limits for investment and lending positions in high carbon-intensive industries, and monitor them monthly.

2-3 Decarbonization Strategy

In order to effectively achieve the goal of financial decarbonization, apart from complying with the Principles for Responsible Investment and Equator Principles, SKFH has established high carbon-intensive industry management guidelines to help the investment and lending department of the subsidiaries to manage climate risks. The content defines the scope of high carbon-intensive industries and high climate-risk industries, investment and lending exposure limits, monitoring frequency, and early warning mechanisms. The applicable business scope includes all new and existing investments, corporate loans, and project finance. The subsidiaries shall implement “Know Your Customer” through pre-investment and pre-loan due diligence, and assess the transaction according to the carbon emissions of the counterparty and industry. After the transaction, we also shall adjust the transaction strategy based on regularly monitoring the improvements of the investee and lending companies for effectively achieving the goal of financial decarbonization.

Management Scope and Mechanisms of high carbon-intensive industries	
Restricted high carbon-intensive industries	<ul style="list-style-type: none"> Thermal coal and Unconventional Oil and Gas industries. Oil & Gas, Electric Utilities, Coal Power in the Majority, Steel, Chemical, Construction Materials, Transportation & Logistics, and Waste Management
Management mechanisms	<ul style="list-style-type: none"> Before the business unit conducts investment and lending activities, for high carbon-intensive industries, such as thermal coal, unconventional oil and gas, etc., the negative effects on climate change of the counterparties shall be carefully reviewed. The counterparties shall be encouraged to adopt related measures in order to reduce climate-related risks. New transaction maybe declined for the high carbon-intensive industries in the exclusion lists until their improvements have been approved. In addition, the counterparties in thermal coal and unconventional oil and gas industries are reviewed every year. If the counterparty’s revenue from thermal coal or unconventional oil and gas exceeds 50% of its total revenue, then engagement shall be conducted in accordance with the SKFH’s Engagement Policy. Set the exposure limits of investments and lending portfolios in high carbon-intensive industries, and monitor them monthly.

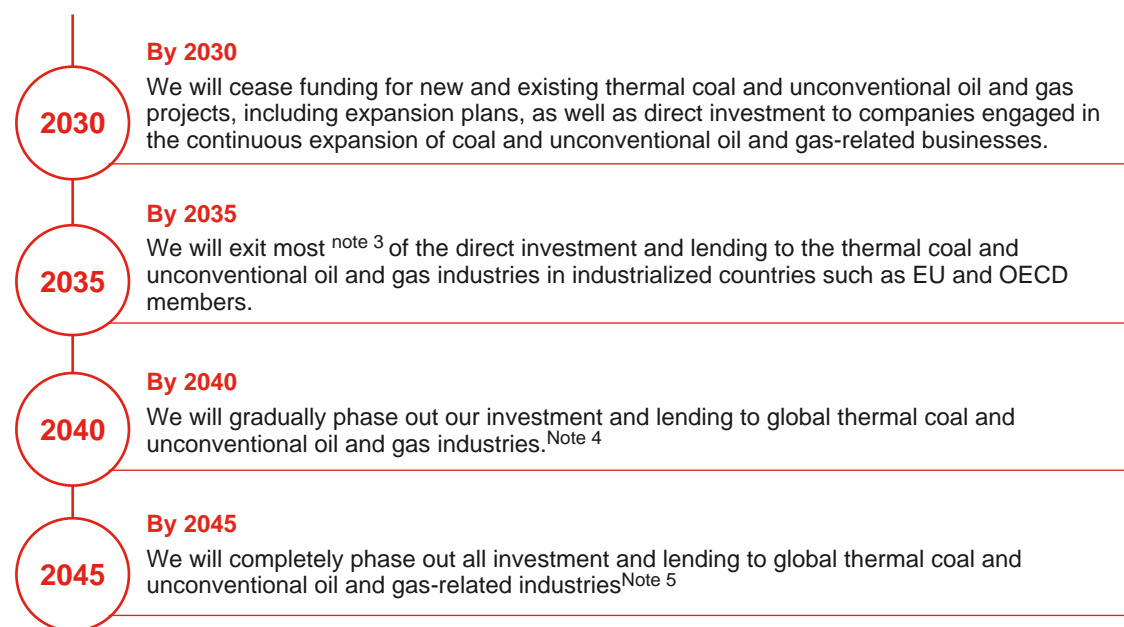
Note 1: Thermal coal and unconventional oil and gas industries, include coal mining, coal-fired power plant, coal infrastructure; refining and marketing, exploration and production, and infrastructure of tar sands, shale oil and gas, Arctic oil and gas resources, unconventional liquefied natural gas, ultra-deep-water oil and gas.

Note 2: Electric Utilities include coal-fired power plant, and electric transmission & distribution.

Note 3: Construction Materials include cement and construction aggregate.

► Schedule for phasing out coal and non-conventional oil and gas-related industries

We commit to fully exit thermal coal (note 1) and unconventional oil and gas (note 2) related businesses by 2045. This includes publicly traded equity and debt, project financing, credit lines and loans, fixed income underwriting business, as well as all active, passive, and third-party managed investment positions. Our phased commitments are:



The exclusion criteria for the aforementioned related industries are as follows: if there are specific decarbonization actions or clear transition plans, including the adoption of Science-Based Targets (SBTs), carbon capture technology to remove carbon emissions, or other decarbonization actions recognized by third-party organizations. Businesses will be evaluated on a case-by-case basis, and business relationships may be maintained with the approval of authorized department heads.

Note 1: This includes industries related to thermal coal mining, coal-related power generation, and coal-related infrastructure.

Note 2: This includes industries related to oil and gas production from oil sands, oil shale, Arctic exploration, and ultra-deep water.

Note 3: Investees and borrowers with over 50% of revenue or power generation from the relevant industries that have not presented low-carbon transition plans consistent with the goals of the Paris Agreement.

Note 4: Investees and borrowers with over 30% of revenue or power generation from the relevant industries that have not presented low-carbon transition plans consistent with the goals of the Paris Agreement.

Note 5: Investees and borrowers with over 5% of revenue or power generation from the relevant industries that have not presented low-carbon transition plans consistent with the goals of the Paris Agreement.

03 Climate-Related Risks and Opportunities

The Green Swan report published by the Bank for International Settlements (BIS) also pointed out that climate shocks will create the next systemic financial risk; the International Monetary Fund (IMF) even stated that climate change poses a serious threat to the stability of the financial system, and the climate crisis will definitely trigger a financial crisis. Therefore, predicting the impact and risks of climate change on the financial industry as a whole, and effectively gaining insight into possible financial risks, are very important for SKFH Group to adjust its risk control and operation strategies.

According to documents released by the International Financial Stability Board (FSB), climate-related risks are classified as "physical risks" related to the impacts of climate change. "Transition risks" associated with a transition to low-carbon economy, and list potential climate-related "opportunities" for mitigating and adapting to climate change.

Physical Risks



Direct or indirect losses caused by specific natural disaster events (acute) or long-term changes (chronic) in climate patterns that are caused by climate change.

Transition Risks



Transitioning to a low-carbon economy may entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change. Depending on the nature, speed, and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organizations.

Opportunities



Efforts to mitigate and adapt to climate change may bring potential opportunities such as reducing operating costs through improved resource use efficiency, adopting low-carbon energy sources, developing new products and services, entering new markets and improving supply chain resilience.

3-1 Climate-related risk transmission pathways

SKFH regularly considers climate-related risk factors, including acute extreme weather events, chronic changes in climate patterns, new policies and regulations, technological innovation, market preference, and reputational damage, etc. and apply for expert method, which is according to "occurrence" and "severity", to rank the SKFH Group's materiality issues. Based on the result, we made a climate risks matrix to assess the financial impact of the company's businesses further formulated climate response management countermeasures.

Climate-related risk transmission pathways				
Type of Climate Risks	Impact Factors	Shocked asset classes	Financial Risk Association	Management
<ul style="list-style-type: none"> Physical Risks Transition Risks 	<p>Macro impact: Impact on overall economic performance</p> <ul style="list-style-type: none"> Socioeconomic changes Changes in investor preferences Adjustment to international standards or interest rates/pricing Labor market changes <p>Micro impact: Impact on households or companies</p> <ul style="list-style-type: none"> Low-carbon policies affect asset valuations Increase in stranded assets and capital expenditures Changes in supply and demand affect cost of income or return on investment Loss of company assets and operating interruption 	<ul style="list-style-type: none"> Investment Lending Operation Real estate 	<ul style="list-style-type: none"> Credit Risk Management Corporate and individual credit default rates rise Decreased value of Collateral Market Risk Management Repricing of assets/investments Reputation Management Operating Risk Management Operational Disruption and System Downtime Increased workplace asset damage and equipment repairs Liquidity Risk Management It is difficult for the company to raise sufficient funds Prepayment /Refinancing 	<ul style="list-style-type: none"> Building consensus on the impact of group' climate risks and opportunities Collection and research of domestic and foreign climate-related risks and opportunities literature report. Make climate risk and opportunity questionnaires and rank them by significance

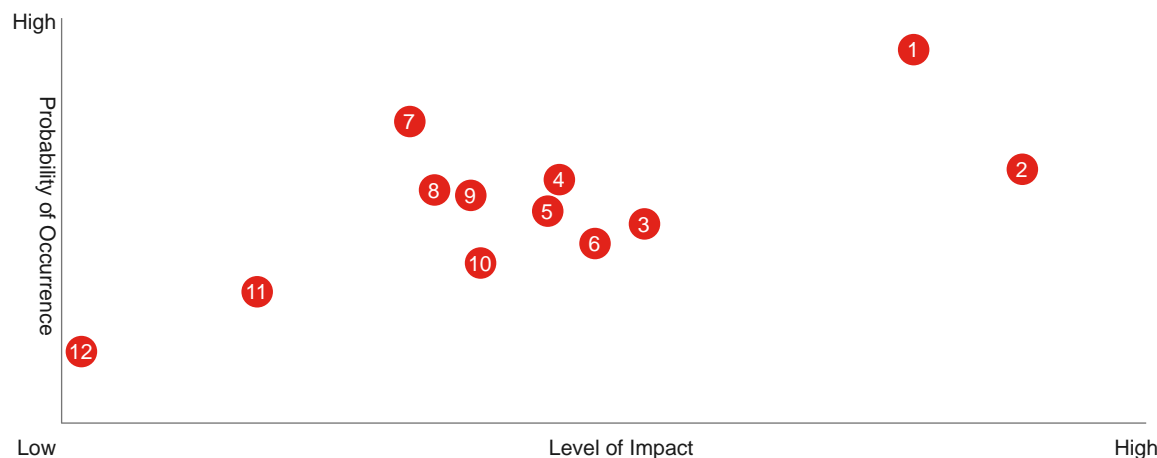
3-2 Identify the Sources of Climate-related Risks and Opportunities

In order to develop the group's climate strategy and identify climate-related risks and opportunities, SKFH has reached a consensus with its subsidiaries on short-, medium-, and long-term impact timing based on the expected lifetime of the assets and activities. We collected and studied climate-related literature and reports both domestically and internationally to establish a climate risk issue database. A climate risk and opportunity survey was created based on SKFH's business types and value chain that studied opinions from relevant departments such as sustainable development, risk management, energy and resource management, investment, and customer relations, with the internal expert method.



The survey results identified twelve climate risks (four physical risks and eight transition risks) and four climate opportunities for SKFH. And link business activities in sequence according to risk issues, quantify and rank according to "Possibility of occurrence" and "Level of impact" in order to analyze impact and extent of each climate risk factor on the SKFH's businesses. The relevant quantitative descriptions are as follows:

Climate Risk Matrix



- 1 The impact of global warming has caused a rapid increase in Taiwan's electricity demand, resulting in power outages without warning.
- 2 If the Company does not take positive and sustainable actions, Shin Kong Group may lose the favor of investors.
- 3 In response to stricter policies or the global trend of zero carbon emissions, the investment efficiency of high-carbon emission industries will be affected.
- 4 Domestic and foreign environment-related regulations and policies are becoming stricter, resulting in additional operating expenses.
- 5 Investment targets are affected by climate change disasters, causing the Shin Kong Group to face investment losses.
- 6 In response to stricter policies and the global trend of zero carbon emissions, we must give up the investments in high carbon emission industries.
- 7 Global warming may increase mortality and morbidity rates, increasing life insurance claims.
- 8 In response to the lower-carbon development trend, SKFH has improved the energy and resource efficiency standards of various assets, such as replacing high-efficiency equipment, thereby increasing operating expenses and investment costs.
- 9 Higher operating expenses are a result of increasing use of renewable energy in response to regulatory, customer preference and international initiatives.
- 10 If the Company does not take positive and sustainable actions, Shin Kong Group may lose the favor of customers and consumers.
- 11 Increased frequency and intensity of heavy rain and flooding, resulting in the disruption of operations.
- 12 Global sea level is rising and the low-lying coastal areas are flooded, resulting in assets damage.

Description of Climate-related Risks



Physical risks

Time of Occurrence / Description of risk events	Financial Impact/ Response Strategy
<p>Short-term</p> <p>Acute Risks:</p> <p>The increase in extreme weather events caused by climate change may bring huge impacts to upstream suppliers, the company's operating locations and investment and lending targets' locations, causing damage to buildings, equipment, operating assets, and collateral, and even leading to operational interruption.</p>	<p>Decrease revenue / Increase operating expenses / Decrease asset value</p> <ul style="list-style-type: none"> • In response to equipment damage caused by extreme weather events, some equipment was changed to a sub-lease mode to transfer the risk of property loss. • Adjust investment portfolios for industries with high climate risks to mitigate investment and lending uncertainty caused by extreme weather. • Establish a database of own real estate, investment property and mortgage loan for assessing potential climatic physical risks to control possible loss.
<p>Long term</p> <p>Chronic risk:</p> <ul style="list-style-type: none"> • The impact of global warming has increased the number of high-temperature days, and the company's air-conditioning power and water consumption have increased, causing the company's operating costs to increase. • Due to the impact of climate change, the incidence of infectious diseases will increase, which may increase mortality and morbidity rates, and increase the amount of life insurance claims. • Rising global sea levels could lead to flooding in low-lying coastal areas, potentially damaging assets and causing a decline in collateral values, resulting in losses for borrowers and difficulty in repayment, thus impacting the Company's interest income. 	<p>Increase operating expenses / Decrease revenue</p> <ul style="list-style-type: none"> • Shin Kong Group regularly inspects and replaces high-energy-consuming assets at each operating locations and adopts energy-saving LED lamps for improving the efficiency of energy. • In order to slow down the fluctuation of high-value claims due to weather factors, a claims research project is planned to evaluate and develop new types of commodities, and also consider related insurance risks and reinsurance assessments. • Conduct RCP2.6 and RCP8.5 scenario analysis to assess potential damage and adjust investment strategies.



Transition risks Short-term

Transition risks Middle- and Long-term

Time of Occurrence / Description of risk events	Financial Impact/ Response Strategy	Time of Occurrence / Description of risk events	Financial Impact/ Response Strategy
<p>Short-term</p> <p>Technical risks:</p> <ul style="list-style-type: none"> The rise in temperature may increase electricity consumption and cause nationwide power outage without warning. In response to the low-carbon development trend, the company has to improve the energy and resource efficiency standards of various assets. To avoid operational losses caused by power outages and to improve the energy resource efficiency of its assets, the Company needs to establish backup power, increase the proportion of self-generated electricity, and replace high-energy-consuming assets, which will lead to an increase in capital expenditures and operating costs. 	<p>Increase operating expenses / Decrease revenue</p> <ul style="list-style-type: none"> The Company has installed uninterrupted power supply (UPS) systems in the computer rooms to ensure normal operation of important information systems and data center files. The rooftops of the Company's business locations are equipped with rooftop solar panels to increase the proportion of self-generated power consumption. Among them, six branches of SKB are the first green energy self-use branches. The Company will continue to evaluate suitable business locations for installing rooftop solar panels in the future. Shin Kong Group regularly inspects and replaces high-energy-consuming assets at each operating locations and adopts energy-saving LED lamps for improving the efficiency of energy. 	<p>Middle-term</p> <p>Reputation Risk:</p> <p>The world is actively moving towards sustainable development. If Shin Kong Group does not take positive and sustainable actions, we may lose the favor of stakeholders such as investors, customers and consumers.</p>	<p>Decrease revenue / Investors are pouring less money</p> <ul style="list-style-type: none"> Following the global sustainability trend, Shin Kong Group actively participates in sustainable actions by incorporating climate risk management into its existing risk policies and revising relevant regulations on investment, lending and real estate. Actively participate in international sustainability-related initiatives, alliances, and international/domestic sustainability ratings to enhance the trust of stakeholders, and grasp domestic and international sustainability and climate change information.
<p>Short-term</p> <p>Policy and regulation risks:</p> <p>Climate Change Response Act</p> <p>In January 2023, Taiwan passed the Climate Change Response Act, which stipulates that Taiwan should achieve net-zero greenhouse gas emissions by 2050. A sub-law on carbon tax will be drafted and implemented, but the standards for carbon tax collection are still pending central government approval and will be announced after that. The standards will also be periodically reviewed and adjusted. We evaluate that if the government starts to impose a carbon tax in the future, it will increase the operating costs of the Company, the procurement costs of our suppliers, and the operating performance of our invested and financed clients.</p> <p>The Renewable Energy Development Act</p> <p>The Renewable Energy Development Act may increase the operating costs via greenhouse gas emissions control and the emissions trading. In response to regulatory requirements, customer demands, and international initiative requirements, companies, suppliers, and investment and lending targets may be affected by the imposition of carbon fees and a higher proportion of renewable energy, thereby affecting costs and profits.</p>	<p>Increase operating expenses / Decrease revenue</p> <ul style="list-style-type: none"> Perform NGFS scenario analysis to assess credit for investment and lending portfolios and market risks in response to policy and regulatory risks associated with the net-zero transition trend. We will actively engage with high carbon emitting suppliers and investment and lending targets, and urge them to make a low-carbon transition; For companies that have not taken any action to improve, we will moderately adjust our suppliers and investment strategies. To improve the efficiency of energy resources and reduce greenhouse gas emissions, SKFH and its subsidiaries inspect greenhouse gas every year. We have fully implemented ISO 14064:2018 GHG inventory standard since 2020 to further understand the greenhouse gas emissions caused by our own operations as well as upstream and downstream activities, so as to facilitate the establishment of carbon reduction strategies and goals. Actively invest in renewable energy power plants and purchase green power and green power certificates to support the development of renewable energy. 	<p>Long-term</p> <p>Technical risks:</p> <p>The Company's investment returns may be indirectly impacted by the gradual stringency of domestic and international environmental regulations, may lead to additional operational expenditures or, in cases of delayed transformation, result in reduced revenue.</p>	<p>Increase operating expenses</p> <ul style="list-style-type: none"> Conduct regular transition risk scenario analysis to evaluate the potential impacts on the asset portfolio within the context of climate change scenarios and adjust investment decisions in consideration of the outcomes. Manage market risks and credit risk mechanisms based on the nature of its business/ commodity.
		<p>Long-term</p> <p>Market risk:</p> <p>The market is transitioning towards a low-carbon economy, and high-carbon industries will be eliminated gradually. The existing investment and credit risk evaluation methods will be not applicable to the low-carbon economy market gradually, which will cause investment and lending loss.</p>	<p>Decrease revenue / Decrease asset value</p> <ul style="list-style-type: none"> The subsidiaries follow the SKFH's "Sustainable Finance Policy" in drafting ESG investment and lending guidelines. Controversial industries with high ESG risks, and high carbon emissions require ESG risk due diligence and careful evaluation with industry-specific guidelines for asset allocation adjustments as appropriate. Engage in dialogues and communication with investee companies through engagement mechanisms, tracking their progress and improvement, with a specific focus on issues related to corporate net-zero emissions and climate change mitigation and adaptation during the engagement process. Continue to identify the risks of financial product investments, as well as credit and other business operations, so as to facilitate control on the overall risks.

Description of climate-related opportunities

Resources Efficiency	
Time of Occurrence / Description of risk events	Financial Impact/ Response Strategy
<p>Short-term</p> <p>Opportunities for cost Optimization:</p> <p>Increasing the proportion of digitized products and services, implementing paperless internal documents, and inventorying of internal operating equipment further increasing the use of energy-saving equipment are expected to bring benefits in reducing operating expenses. Develop sustainable green buildings to achieve environmental friendliness and efficient resource utilization, gaining consumer trust and boosting revenue.</p>	<p>Decrease operating expenses / Increase revenue</p> <ul style="list-style-type: none"> Inventory of internal operating processes for paperless optimization, and update the equipment at self-owned operating locations in order to improve the efficiency of resources in operating activities. To enhance the environmental sustainability of our buildings, the goal is to obtain silver-level or higher green building certification for all future new construction projects. Continue revitalizing existing buildings and facilities by implementing various energy-saving measures to improve the energy efficiency of our current buildings.

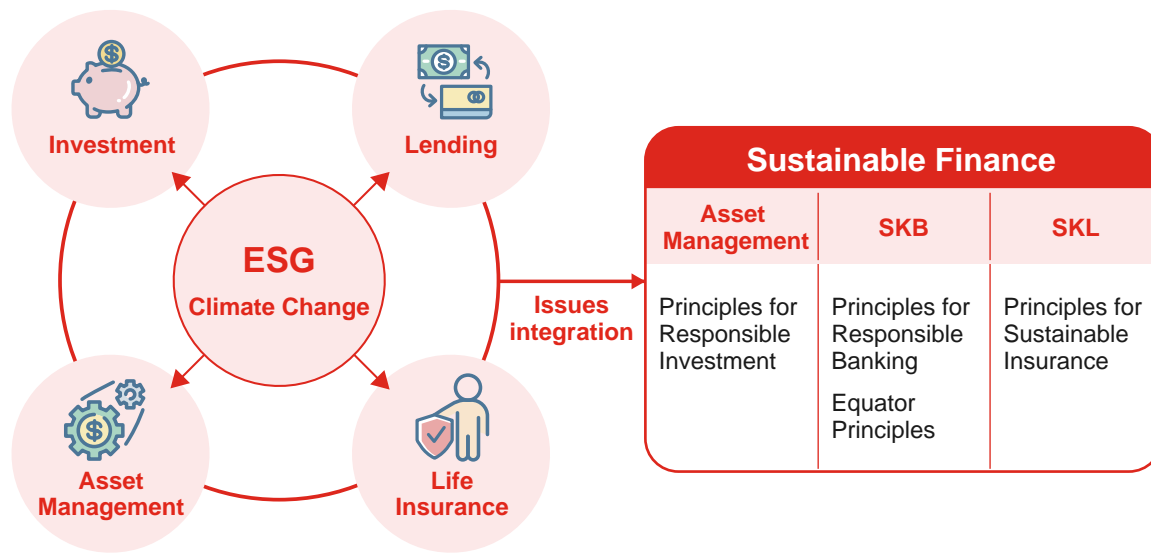


Services and Products	
Time of Occurrence / Description of risk events	Financial Impact/ Response Strategy
<p>Short-term</p> <p>Market opportunities:</p> <p>In response to the generation of secondary air pollutants caused by rising temperatures and the increase in respiratory and cardiovascular diseases, the development of related insurance products is expected to bring positive benefits.</p>	<p>Increase revenue</p> <ul style="list-style-type: none"> Subsidiary SKL has launched the "Air Pollution Policy" for diseases of the respiratory and circulatory system and will continue to develop related products to seize market opportunities.
<p>Short-term</p> <p>Market opportunities:</p> <p>By preparing corporate sustainability reports, disclosing carbon management information, and participating in sustainability assessments, we continuously refine and enhance our sustainability efforts. We also promote the concepts of sustainability and green consumption to underscore the Company's commitment to sustainable development and its brand image.</p>	<p>Increase revenue</p> <ul style="list-style-type: none"> By staying informed about ESG trends and regulatory initiatives, and garnering positive media coverage, we aim to earn the approval of the public. In doing so, we steadily progress towards sustainable operations, thereby cultivating the Company's image as a proponent of sustainable development.
<p>Short-term to Middle-term</p> <p>Market opportunities:</p> <p>Develop a range of financial products focused on environmental protection, climate change, green energy, and sustainability issues to cater to the demands of investors and clients, ultimately boosting the Company's revenue.</p>	<p>Increase revenue</p> <ul style="list-style-type: none"> Proactively identifying and seizing climate-related business opportunities to continue developing environmentally friendly products and services and assist consumers in mitigating the environmental and health impacts of climate change. Promote the development of products and explore potential opportunities in various domains to meet customers' demands, and consequently increase company revenue. Plan to develop derivative products linked to domestic ESG indices or ETFs, and incorporate green investments, guidance for green company listings, green bond underwriting amounts and quantities, and ESG-themed investments into the index tracking criteria. From 2021, green bonds and green funds have been issued and ESG sustainability linked loans have been implemented.
<p>Short-term to Middle-term</p> <p>Investment Opportunities:</p> <p>As the market transitions to a low-carbon economy, long-term investments in green finance and renewable energy industries are expected to bring positive benefits.</p>	<p>Increase revenue</p> <ul style="list-style-type: none"> Continue to observe the sustainability trends, and increase the investment in green finance and renewable energy industries.

04 Low-carbon Finance

4-1 Sustainable Finance

SKFH uses its core competencies and professionalism to fulfill the "responsible finance" spirit and contribute to the sustainable development of society. We promote SKFH, its subsidiaries, and outsourced investment institutes to include environmental, social and governance (ESG) strategies and ideas into financial operations including investment, financing, lending, insurance, and asset management. They are suggested to cooperate with customers and business partners (including suppliers) and many other stakeholders to provide responsible financial products and services. In the future, we will continue to follow sustainable development trends, gradually increase the proportion of responsible investment, and effectively keep pace with global sustainability and positive opportunities.



► The Sustainable Finance Policy

SKFH has formulated the "SKFH Sustainable Finance Policy" adhering to the United Nations PRI, PRB, PSI, and EPs. The policy regulates SKFH and its subsidiaries' financing activities such as investment, lending, and life insurance integrating ESG factors. Before making decisions, ESG risks and opportunities due diligence must be conducted and evaluated prudently. Those included in the exclusion lists should avoid dealing with each other. In addition, we also formulate asset class specific guidelines for investment, lending, and life insurance activities and sector specific guidelines for potentially controversial and carbon-intensive industries. After inspection, those who belong to the above activities and industries shall follow the guidelines as the basis for decision-making on whether to deal with or not, and only those who meet the guidelines can deal with.

In addition, in order to safeguard shareholders, employees and customers' long-term value, reduce sustainability-related risks, and seize opportunities. SKFH upholds the function of pooling market funds for investment as a financial institution and fulfills the spirit of stewardship for institutional investors to formulate engagement policies and voting policies as the stewardship behavior standards for each subsidiary. Subsidiaries need to take engagement actions based on the engagement issues that SKFH is concerned about, and continue to pay attention to the operation status and sustainable performance of counterparties, actively attend annual general meeting, exercise voting rights, and properly dialogue and interact with the management of the counterparty. If the counterparty does not make improvements, no new transactions are allowed. If the deterioration of counterparties continue, capital reduction or divestment actions should be taken.

The sustainable finance policy covers 100% of the total managed assets of all applicable responsible investment and responsible lending with merely excluding assets such as cash, deposits, and foreign exchange hedging, which is totaling about NT\$4.2 trillion. The policy also applies to outsourced investment institutions. We require outsourced investment institutions to follow the PRI principles, abide by SKFH sustainable finance policy, and incorporate the spirit of responsible investment into 100% of external management assets.

4-2 The Exposure of High Carbon-intensive Industries

To avoid aggravating climate disasters, global warming must be controlled within 1.5°C. "2050 Net Zero Emissions" has become a global target. The National Development Commission also announced the "2050 Net Zero Emissions Path" in 2022. Therefore, the market will transit to a low-carbon economy, and high GHG emitters will be gradually phased-out. The original investment and credit risk assessment methods will gradually become unsuitable for the low-carbon economy market, which may lead to the risk of loss of investment and lending income.

In view of this, SKFH examines the carbon emission situation of investment and lending portfolios in different asset classes and different industry categories, and further formulates management policies for high-carbon emission industries to assist investment and lending units of subsidiaries to control climate risks. The content covers the definition of high carbon emission industries and monitoring industries, investment and lending limits, monitoring frequency and early warning mechanism, etc. The applicable business scope includes all new and existing investments, lending and project financing, etc., Through monitoring carbon-intensive industries, we expect to effectively achieve the financial decarbonizational goal.

The financed carbon emissions of investment and lending portfolios by industry



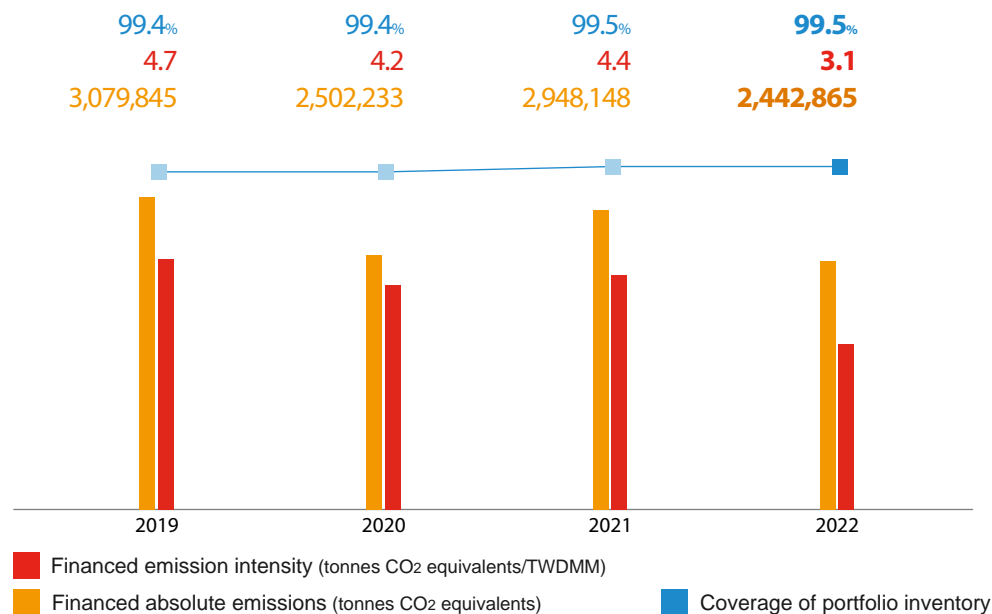
- 4.1% Oil & Gas
- 2.8% Electric Utilities
- 0.3% Steel
- 1.1% Chemical
- 0.4% Construction Materials
- 0.1% Transportation and Logistics
- 0.05% Waste Management
- 91.0% Total of non-high carbon emission industries

4-3 Financed Carbon Emissions of Investment and Lending Portfolios

► Financed carbon emissions and carbon intensity in the past four years

From 2021, SKFH has inventoried the financed emissions of its investment and lending portfolios across different asset and industry classes based on the calculation guidelines published by the Financial Stability Board, Science-based Targets initiative, Partnership for Carbon Accounting Financials and Category 15 Investment of GHG Protocol Scope 3. The total financed absolute emissions (in tCO₂e) and weighted average carbon intensity (tCO₂e/TWDMM, Revenue) are presented separately for each category, and the AA1000ASv3 Type 2 Moderate is used as the verification standard for related data.

SKFH's financed absolute emissions and financed emission intensity in the past four years



Note 1: The inventory scope is based on the required activities of the SBT target setting announced by Science Based Targets initiative(SBTi).

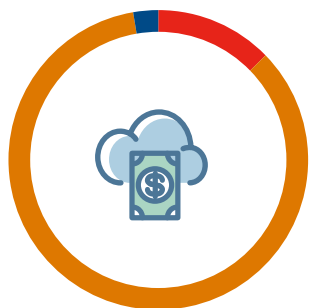
Note 2: Considering the financed emissions of commercial real estate is estimated by coefficients (converting electricity consumption and carbon emissions per unit floor area), so the above WACI calculation results do not include commercial real estate, but the calculated carbon footprint of commercial real estate is 0.75 tCO₂e/TWDMM

► The financed carbon emissions by asset class and industries in 2022

SKFH reviews the financed carbon emissions by asset class and industries within the investment and lending portfolios, which are represented as total absolute carbon emissions (tCO₂e) and Weighted Average Carbon Intensity(WACI) (tCO₂e/TWDMM, Revenue).

Due to the nature of business of SKFH and its subsidiaries, bond investment has the highest financed absolute emissions among categories, but weighted average carbon intensity is the highest in corporate Loan. SKB has set a quota for financing projects that do not involve coal-fired power plants since 2022, and has established a goal of zero coal financing by 2045. The top three high carbon-intensive industries are the Oil & Gas industry, the electric utilities (mainly coal-fired power generation) industry, and chemical industry. We have also set management standards for high carbon-intensive industries and gradually reduced the position of related risk exposure.

The financed emissions of investment and lending portfolios by asset in 2022



Proportion of investment and lending portfolios	Financed absolute emissions (tCO ₂ -e)	Weighted average carbon intensity (tCO ₂ -e/ TWDMM, Revenue)
12.7% Equity	285,076	4.2
85.0% Corporate bonds, financial bonds	1,969,392	2.8
2.4% Corporate loans	188,397	9.7
Long-term corporate loans (Non-SME)		
Fossil fuel loans		
Power supplier loans		
Power plant project loans (Non-renewable energy)		
Commercial real estate loans		
Total	2,442,865	3.1

Note 1: The inventory scope of financed emissions of corporate loan is based on the standards of the SBTi Financial Sector Science-Based Targets Guidelines, and the coverage of fossil fuel loans, power supplier loans and power plant project loans is 100%.

Note 2: Considering the financed emissions of commercial real estate is estimated by coefficients (converting electricity consumption and carbon emissions per unit floor area), so the above WACI calculation results do not include commercial real estate, but the calculated carbon footprint of commercial real estate is 0.75 tCO₂e/TWDMM.




The financed emissions of investment and lending portfolios by industry in 2022

Industry	Weighted average carbon intensity (tCO ₂ -e/TWDMM, Revenue)	Percentage of total carbon emissions
Oil & Gas	16.6	31.9%
Electric Utilities (mainly coal-fired power generation)	23.3	22.9%
Steel	37.9	5.5%
Chemical	17.3	7.2%
Construction Materials	39.5	3.2%
Transportation and Logistics	36.4	1.0%
Waste Management	170.0	1.9%
Total of non-high carbon emission industries	1.3	26.5%
Overall	3.1	

4-4 Green Finance Impact







To promote green economic development, SKB also focuses on involving in low-carbon, clean energy, climate change mitigation, biodiversity, and other aspects, creating green value for financial institutions and guiding customers to practice green consumption and living.

Unit: NT\$ 100 millions

Green Investment		
SDGs	ESG-themed investments	2022
  	Low-carbon and eco-friendly or green energy-related industries <ul style="list-style-type: none"> Green bonds Renewable energy power plants Green energy technology, new agriculture, and circular economy under the Taiwanese government's "Five Plus Two" policy 	464



(Unit: In NT\$100 millions)

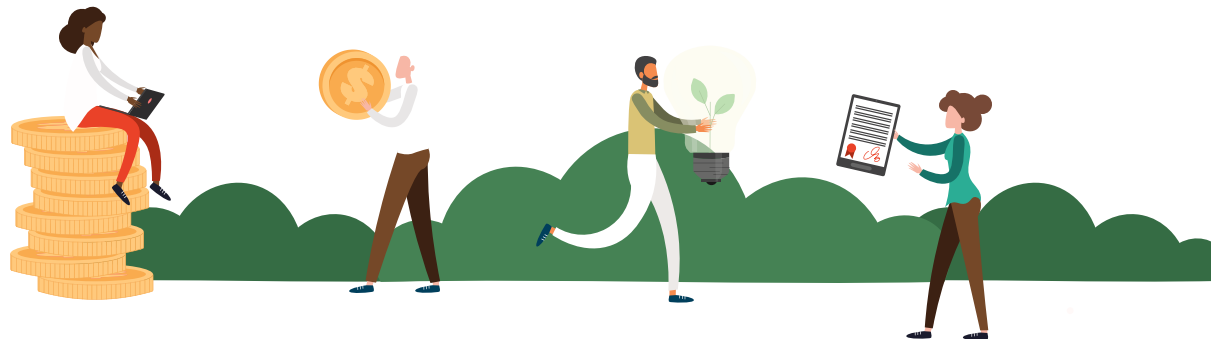
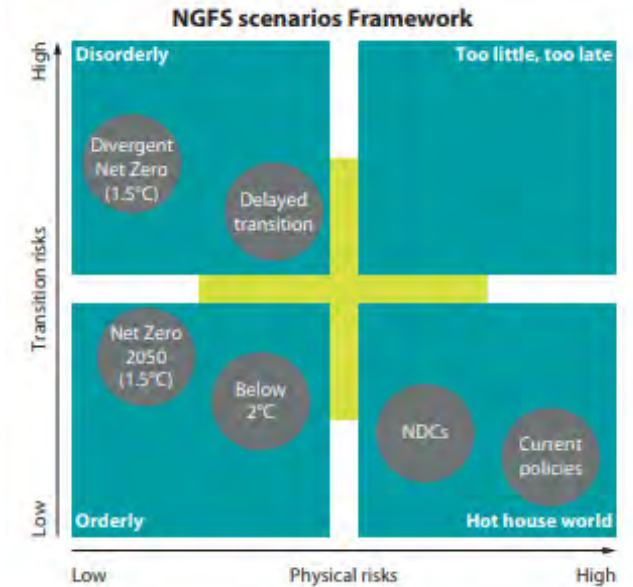
Green Lending		
SDGs	Green lending themes	Credit balance in 2022
	Renewable energy	31.4
	Clean transportation	10.7
	Green buildings	8.0
	Energy efficiency	2.1
	Pollution prevention and control	0.3
	Climate change adaptation	0.02
 	Terrestrial and Aquatic Biodiversity Conservation	0.01
Total		53.0

05 Scenario Analysis and Financial Impact

Global climate and environmental risks have become increasingly apparent in recent years. A UBS research report pointed out that if financial institutions cannot effectively manage climate risks, climate change may cause a loss of more than 17% of its asset value. As the risks of climate change increase rapidly, financial supervisory authorities in various countries have also conducted overall stress tests for the financial industry or issued guidelines to require financial institutions to assess potential losses under different climate change scenarios.

In 1998, the United Nations Environment Programme and the World Meteorological Organization jointly established the Intergovernmental Panel on Climate Changes (IPCC) to assist policymakers in various countries in formulating response strategies for climate change, and publish a comprehensive assessment report on changes related to science and technology, socio-economic cognition, climate change causes, potential impacts, and coping strategies irregularly. In 2014, IPCC proposed four representative concentration pathways (RCPs) in the Fifth Assessment Report (AR5) as future climate scenarios analysis, including RCP2.6, RCP4.5, RCP6.0 and RCP8.5. On the other hands, IPCC also proposed five Shared Socioeconomic Pathways (SSP) in the Sixth Assessment Report (AR6) in 2022. The difference between AR5 and AR6 is added two scenarios, RCP1.9 and RCP7.0, as the basis for comprehensive scenarios analysis.

In June 2021, the Network for Greening the Financial System (NGFS), established by central banks and financial regulatory authorities worldwide, released the latest climate change scenarios. These scenarios reflect global commitments to net-zero emissions and expand to include national-level macroeconomic variables. Built upon SSP2, they propose six climate change scenarios based on different degrees of low-carbon transition and implementation efficiency for consistent scenario settings to various countries.



5-1 Scenario Analysis Setting Instructions

SKFH has followed the climate change stress test framework and the methodology of the International Sustainability Initiative announced by the supervisory authorities in various countries, and refer to the IPCC Fifth Assessment Report, Sixth Assessment Report and NGFS and other climate change reports to conduct a systematic assessment process of climate physical risks and transition risk scenarios for strengthening our strategic planning and response actions.

Considering recent international climate policy trends and domestic low-carbon transition goals, SKFH selected four Representative Concentration Pathways, namely RCP 2.6, RCP 4.5, RCP 6.0, and RCP 8.5, as future climate estimation scenarios for physical risk scenario analysis. Additionally, for transition risk scenario analysis, three different climate change scenarios were selected for analysis and stress testing, aiming to assess climate impacts. Each individual scenario represents varying levels of transition risks. Carbon pricing (or carbon tax) was chosen as the primary climate risk parameter for this assessment.



Global warming

Scenario category : Current Policies

In the absence of any new carbon reduction pathways, including all relevant promised policies, even if they have not yet been implemented, the uncertainty and physical risks associated with climate change are relatively high for countries that respond to climate change based on their own conditions and measures.

Scenario category : NDCs

The scenario assumes that the nationally determined contributions (NDCs) committed by various countries have been fully implemented by 2025 and 2030, resulting in the achievement of energy and emission targets for all nations. Considering the updated NDC targets and countries' declared net-zero targets, it is anticipated that more aggressive carbon reduction levels can be achieved by 2030 compared to the original NDC goals.



Orderly transition

Scenario category : Net Zero 2050

Relative orderly pathway that achieves net-zero emissions by 2050, limiting temperature rise to below 1.5°C. However, deviations from industry-issued policies and acceleration in phasing out fossil fuels result in higher costs for achieving net-zero emissions.

Summary of scenario analysis application positions

In order to further understand the impact of the physical and transition risks of climate change on the company, climate scenario analyses were carried out for the company operating locations, investment property, upstream suppliers, and downstream products and services, such as domestic borrowers and investees, securities underwriting companies, real estate collaterals, and investment and lending portfolios. It is hoped that by understanding the exposure to different climate scenarios and actively carrying out relevant management actions and countermeasures, SKFH can enhance the climate resilience. The scenarios analyses were summarized as follows:

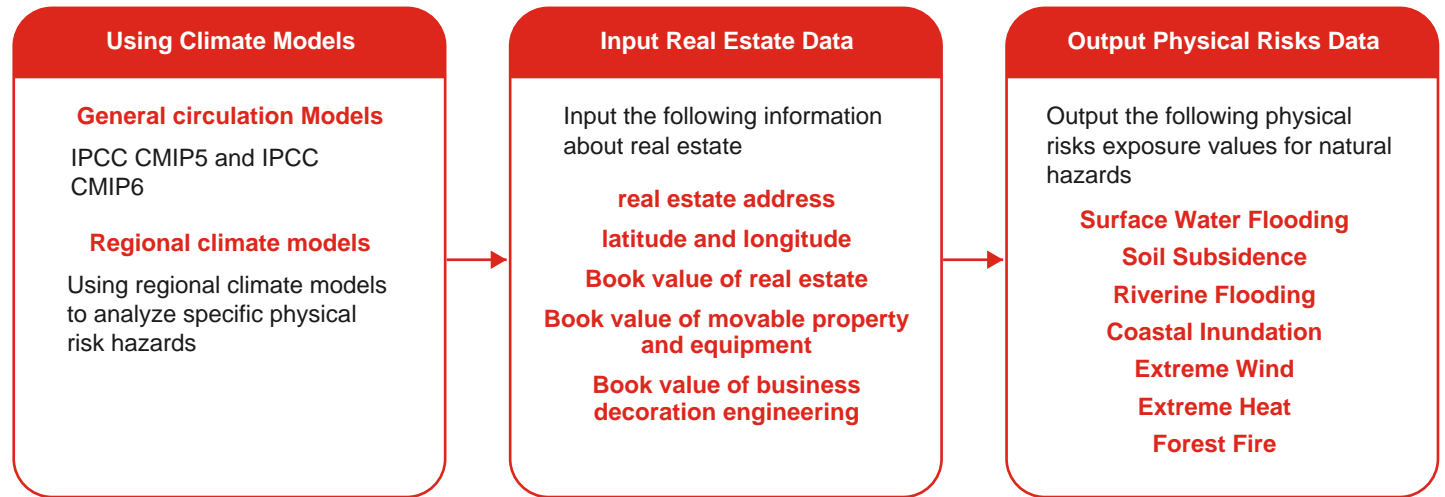
Risk Type	Application	Climate Scenario
Physical risk	Disaster risk analysis- Operating locations, investment property, domestic borrowers, investee companies, securities underwriting companies, and real estate collaterals	RCP 2.6 \ RCP 8.5
Transition risk	Market risk and credit risk analysis- Investment and Lending Portfolios	NGFS \ Net Zero 2050 \ Current Policies \ NDCs
Physical risk	Disaster risk analysis-Upstream Suppliers Location	RCP4.5 \ RCP6.0 \ RCP8.5
Transition risk	Carbon fee for market risk analysis-Upstream Suppliers	NGFS \ Net Zero 2050 \ Current Policies \ NDCs

5-2 Scenario Analysis of Physical Risks

► Disaster risk analysis for operating locations, investment property, domestic borrowers, investee companies, securities underwriting companies, and real estate collaterals

As Taiwan is an island nation in a subtropical monsoon region with complex terrain, weather changes occur frequently in different areas, and natural disasters occur from time to time. During typhoon season, Taiwan often suffers from heavy rainfall and flooding in low-lying and urban areas. Bridges and embankments can be destroyed by rising river waters. In order to understand potential operational impacts under different climate scenarios, we used two scenarios, RCP2.6 and RCP8.5, and conducted simulation analysis with international climate models.

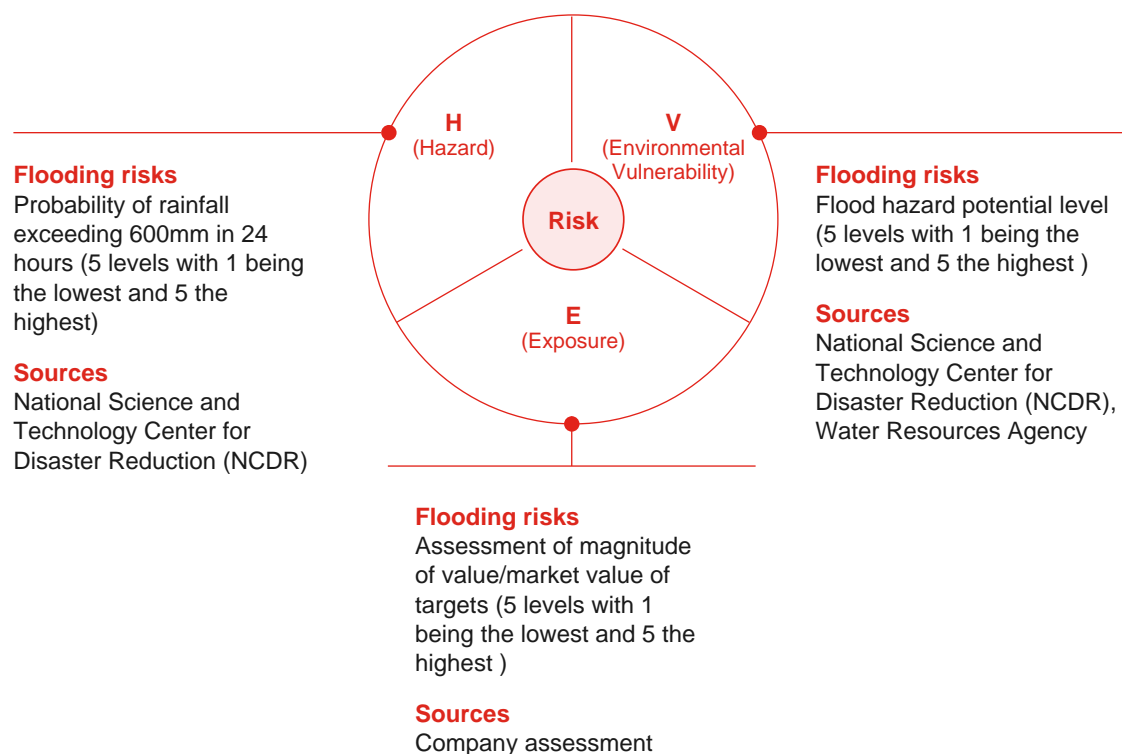
Model 1



Model 2

Taking the Intergovernmental Panel on Climate Change (IPCC) definition of climate change physical risk impact based on three factors: hazard, exposure, and vulnerability, we performed flood potential physical risk scenario analysis with NCDR's flood potential map of Taiwan's non-urban areas under RCP8.5 scenarios published on the Climate Change Disaster Risk Adaptation Platform. This helped us understand potential damage levels due to climate change impacts by the end of this century (2075-2099).

Physical Risk Scenario Analysis Process



► Analysis results of SKL's operating locations and investment properties

SKL owns a total of 200 real estate assets across Taiwan in 2022. We used two scenarios, RCP2.6 and RCP8.5, and simulated the maximum climate risk values that each location and investment property would face in different types of climate risk disasters from 2020 to 2100, with an interval of 10 years. These risks include surface flooding, subsidence, river flooding, coastal flooding, forest fires, extreme heat, and extreme winds. The analysis process and results are presented below.

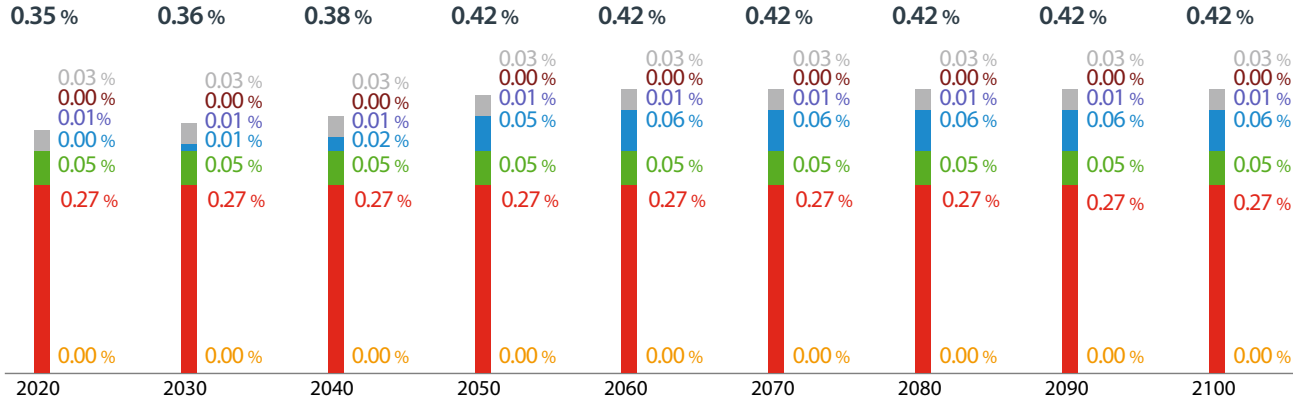
Max Climate Value at Risk (MVaR%)

The results show that regardless of the RCP2.6 or RCP8.5 scenario, land subsidence caused by drought is the most significant climate risk to real estate properties located in different counties and cities in Taiwan from 2020 to 2100. In the RCP2.6 scenario with a slower pace of global warming, the maximum climate value at risk is 0.42% in 2100. Meanwhile, in the RCP8.5 scenario with a exacerbation of warming and high greenhouse gas emissions presents 0.55 % in 2100. The financial impact is less than NT\$415 million. Neither scenario has a significant impact on the Company.

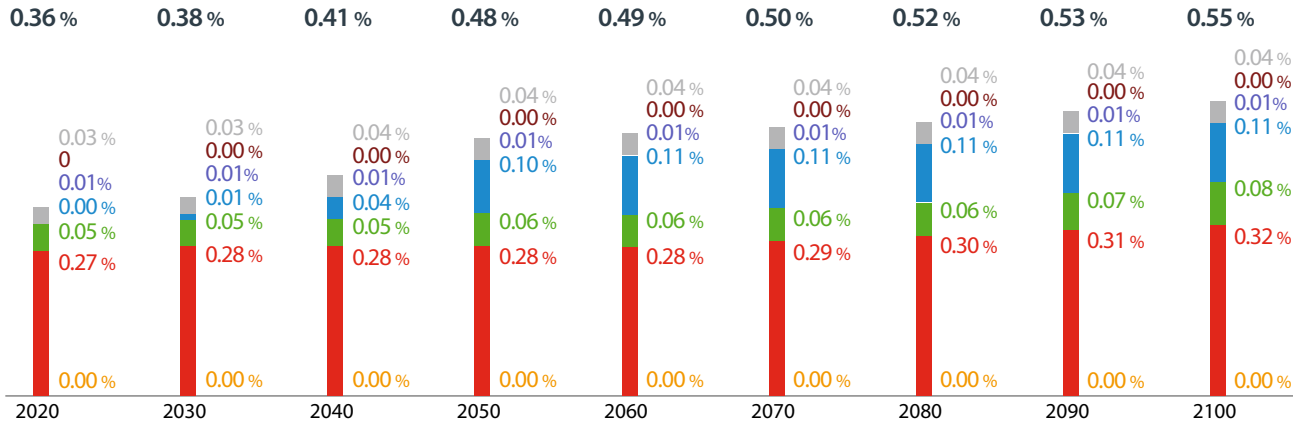
Hazard	By what standard is the impact of the disaster measured?
Riverine flooding	Annual maximum rainfall within 24-hour
Coastal inundation	Global sea level
Extreme Heat	Annual average maximum temperature
Forest fire	Forest Fire Weather Index
Wind damage	Annual maximum wind speed
Soil movement due to drought	Total annual rainfall
Freeze-thaw damage	Days of Ice melting
Surface water flooding	Total annual rainfall
Heat-related work hours lost	Total lost hours per year
Heat-related excess mortality	The number of Excess Heat Factor (EHF) under RCP2.6/8.5

The Max Value at Risk under RCP 2.6 and RCP 8.5 scenarios. (Max Climate Value at Risk%)

RCP2.6

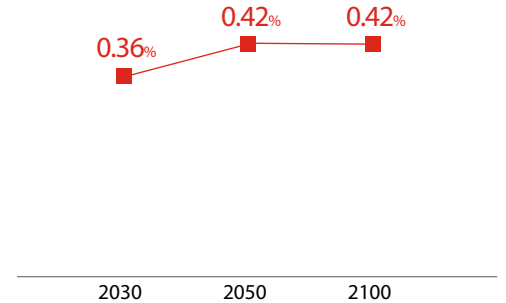


RCP8.5

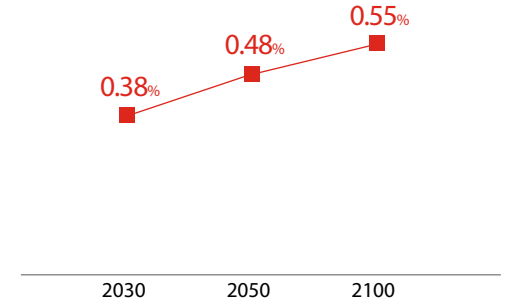


Changes in Max Climate Value at Risk under scenario simulation

RCP2.6



RCP8.5



Note 1: Climate Value at Risk, VaR%: The percentage of repair costs to asset reconstruction costs for the real estate in a single year after being damaged by climate disasters.

Note 2: Max Climate Value at Risk% means the maximum loss value caused by the type of climate disaster in that year.

Analysis of SKL's operating locations

By the end of 2022, SKL has a total of 129 building operating locations in Taiwan. After conducting the disaster scenarios analysis of physical risk on operating locations, it is found that under the climate scenario RCP8. Before 2100, there is a high risk of climate change, and the main climate factors are river flooding and surface flooding.

For overall real estate, SKL will pay close attention to the ground subsidence in the area where the operating location is located through the ground subsidence monitoring information system of the Water Resources Agency of the Ministry of Economic Affairs.

RCP2.6



2030



2050

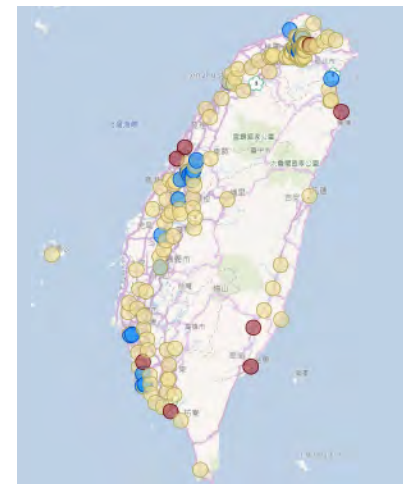


2100

RCP8.5



2030



2050



2100

MVaR% ● >1% ● 0.2-1% ● <0.2%

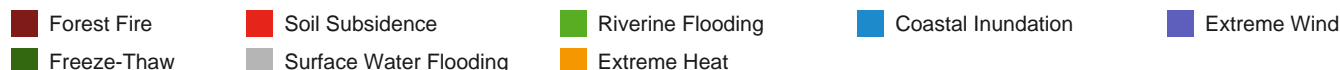
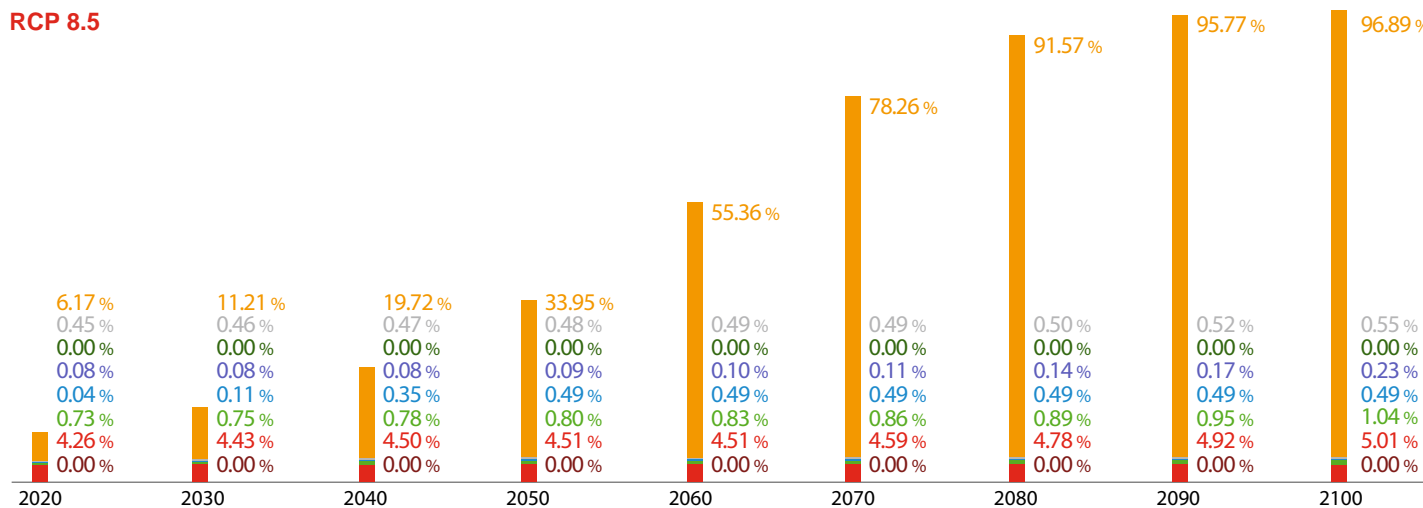
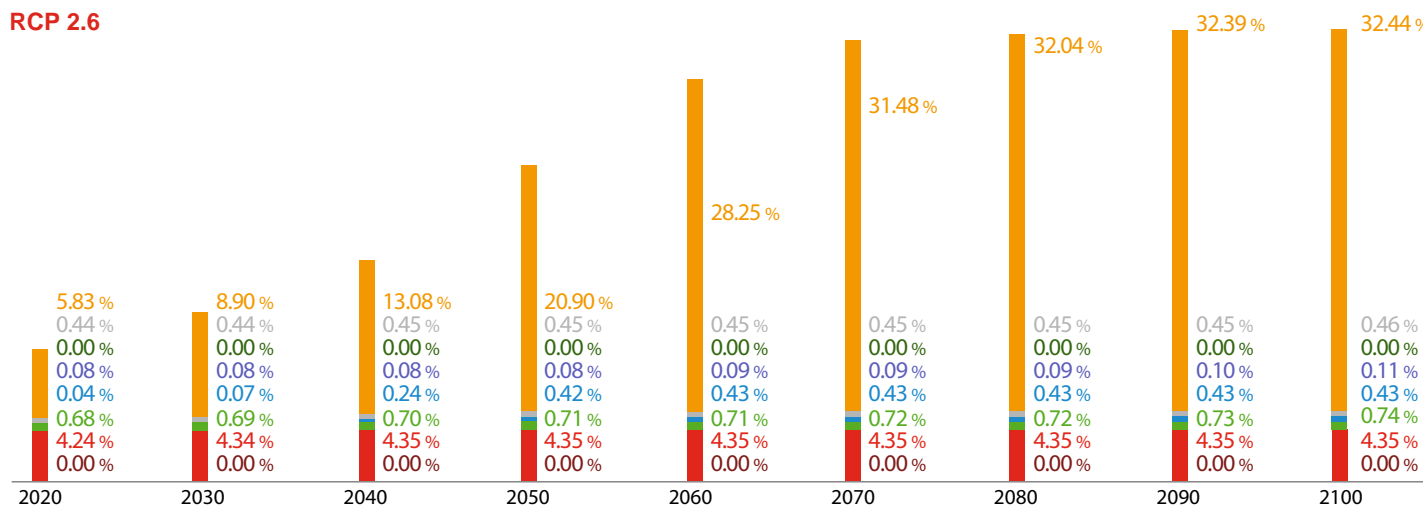
Note : The maximum climate risk value (MVaR %) is greater than 1%, which is regarded as a high climate risk area.

Probability of operational disruption (FP%)

FP% represents the probability of operational disruption of buildings due to climate disasters in a given year, evaluated with the concept of productivity loss. The underlying climate risk factors are "heat-related working hour loss" and "heat-related excess mortality."

Based on the analysis results, "extreme heat" is the major factor causing operational interruptions in both RCP2.6 and RCP8.5 scenarios. Especially under RCP8.5, extreme heat is expected to have a 96.9% probability of operational disruptions, which makes SKL pay close attention to accelerating low-carbon transition efforts. In addition, SKL estimates that under the RCP2.6 and 8.5 scenarios, the temperature may increase by 0.3°C to 4.8°C in the 21st century, increasing the likelihood of heat-related injuries, such as heatstroke, among employees. Therefore, we will pay closer attention to the occupational safety and health of employees, and provide more protective measures during extreme weather conditions to prevent related injuries from occurring.

To respond to operational disruptions, SKL has implemented and established a Business Continuity Management System (BCMS), and obtained ISO 22301 certification for BCMS in January 2022. This is to reduce the possibility or extent of operational disruptions, enhance the ability to respond to major events, and quickly recover to ensure sustainable operations of the Company, thereby safeguarding the interests of customers and all stakeholders.



► Analysis results of SKB's operating locations, domestic borrower and investee companies' registration places, and domestic real estate collaterals

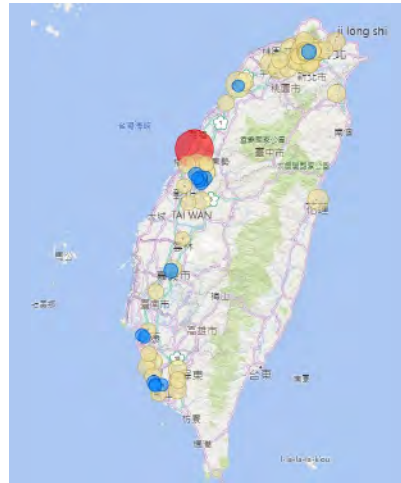
In our analysis of the maximum climate risk value (MVaR) of 104 branches of SKB located in 68 townships and cities across Taiwan, MVaR greater than 1% is regarded as a high climate risk area. The analysis shows that :

In the RCP2.6 scenarios, one branch located in Taichung City is regarded as a high climate risk area in 2030, 2050 and 2100.

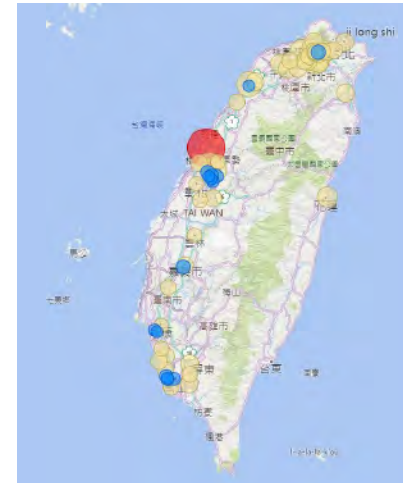
In the RCP8.5 scenarios, one branch located in Taichung City is classified as a high-risk area in 2030 and 2050. By 2100, six branches located in New Taipei City, Hsinchu City, Taichung City, and Hualien County are regarded as high climate risk areas.

In order to reduce the climate risk of our operational locations, we will strengthen flood prevention measures and develop mitigation plans for risk responses, such as regular drills, backup and restoration.

RCP2.6



2030

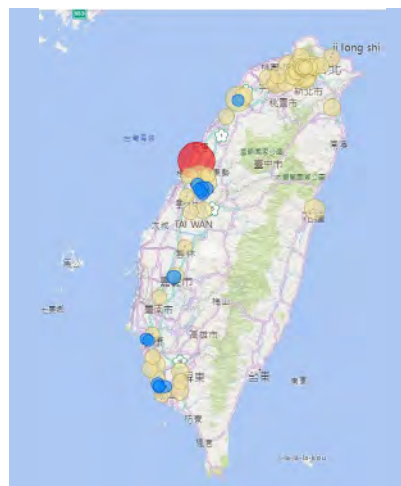


2050



2100

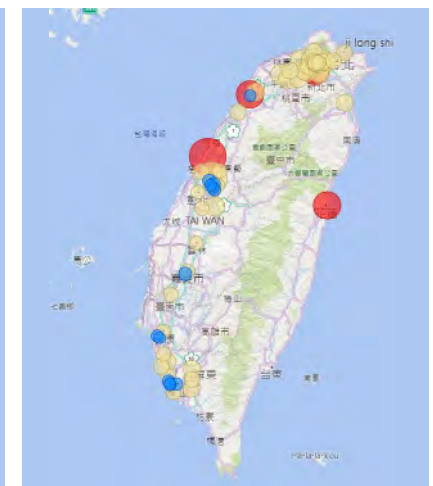
RCP8.5



2030



2050



2100

MVaR% ● >1% ● 0.2-1% ● <0.2%

Note : The maximum climate risk value (MVaR %) is greater than 1%, which is regarded as a high climate risk area.

Analysis of SKB's domestic borrower and investee companies' registration places, and domestic real estate collaterals

SKB carried out the climate change scenario analysis planned and handled by the Financial Regulatory Commission, and carried out the physical risk assessment of domestic borrower and investment companies' registration places, as well as the location of domestic real estate collaterals. The analysis results under each scenario_year combination are as follows:

Under different scenarios_year, distribution of physical risk levels of domestic borrower and investment companies' registration places					
scenario_year/ Physical risk level	Low	Middle and Low	Middle	High and Middl ^{Note}	High
RCP2.6_2030	78%	2%	9%	9%	2%
RCP2.6_2050	75%	5%	6%	12%	2%
RCP8.5_2030	77%	4%	8%	11%	0.3%
RCP8.5_2050	76%	3%	7%	14%	0.3%

Note 1: Contains OBU borrowers whose risk-immigrated country is Taiwan.

Note 2: The RCP2.6 scenarios and the RCP8.5 scenarios respectively correspond to the orderly/disorderly transition scenario and the current policies scenario in the "Domestic Bank Conducting Climate Change Scenario Analysis Operation Plan" issued by the FSC.

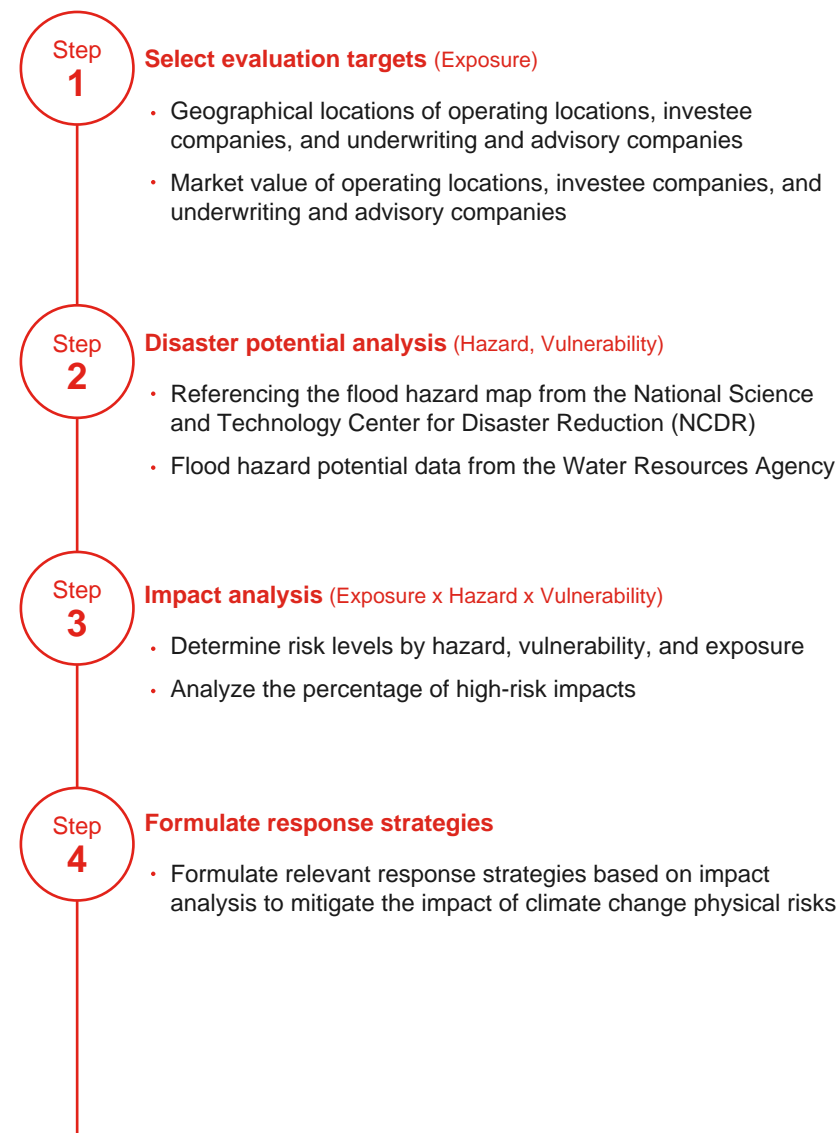
Under different scenarios_year, distribution of physical risk levels of real estate collaterals locations					
scenario_year/ Physical risk level	Low	Middle and Low	Middle	High and Middl ^{Note}	High ^{Note}
RCP2.6_2030	19%	48%	9%	12%	13%
RCP2.6_2050	11%	51%	12%	12%	15%
RCP8.5_2030	17%	45%	10%	14%	14%
RCP8.5_2050	11%	51%	12%	13%	13%

Note 1: Including Taoyuan District and Guishan District of Taoyuan City, Tamsui District and Linkou District of New Taipei City.

Note 2: The RCP2.6 scenarios and the RCP8.5 scenarios respectively correspond to the orderly/disorderly transition scenario and the current policies scenario in the "Domestic Bank Conducting Climate Change Scenario Analysis Operation Plan" issued by the FSC.

To sum up, under different scenarios_years, the physical risks faced by SKB borrower and investment companies, and the real estate collateral have limited impact on profit and value impairment. The overall financial impact on SKB is controllable.

► Results of disaster potential analysis for operating locations and investment positions of MasterLink Securities



Disaster potential analysis for operating locations of MasterLink Securities

For the physical risk scenario analysis, 45 operating locations across Taiwan were assessed by the end of 2022. The results indicate that two operating locations are situated in areas with a high risk of flooding. However, both of these locations are in well-protected flood zones within urban areas (Taipei City and New Taipei City) and are not company-owned assets. Moreover, one of these locations is positioned on a higher floor, resulting in a minor financial impact on the Company and thus having an insignificant effect.

Disaster potential analysis for operating locations		
Risk Level	Number of investees	Percentage of investees
1	18	40.00%
2	13	28.89%
3	7	15.56%
4	5	11.11%
5	2	4.44%
Sum	45	100%



Measures for operating locations

When selecting future operating locations, security and potential impact of climate physical risk on assets will be taken into account. Physical risks are regularly evaluated using climate-related scenarios to assess the expected exposure to future climate changes on the Company's operation, providing references for climate-related risk management strategies or response measures.

To enhance operational resilience and maintain uninterrupted operations, ISO 22301 Business Continuity Management Standard has been initiated in 2023. This aims to reduce the likelihood or extent of operational disruptions, strengthen responses to major incidents, and enhance rapid recovery capabilities, ultimately increasing climate operational resilience.

In addition, to mitigate the physical risk impact of operating locations due to climate change, regular reviews and updates of crisis management procedures will be undertaken. These include management procedures on scenarios involving various types of natural disasters, responsible personnel, and relevant disaster prevention information, sufficient to cope with and mitigate potential negative impacts from floods.

Disaster potential analysis for investment positions of MasterLink Securities

For the physical risk scenario analysis, 43 long-term owned investee companies (including FVOCI domestic listed stocks and unlisted stocks), 26 domestic corporate bond positions, and 34 underwriting and advisee investee companies were assessed by the end of 2022. The results indicate that only one investee company of FVOCI domestic listed stocks is situated in an area with a high risk of flooding. All others are not located in high flood risk areas. The estimated maximum possible loss amount is approximately 0.57% of the net value as of the end of 2022, causing minimal financial impact and thus not significantly affecting the Company

Measures for investment positions

Physical risks of our positions are regularly assessed using climate-related scenarios to reflect the expected impact of future climate changes on investee companies' operational exposure, and potential loss analysis was performed, providing references for climate-related risk management strategies or response measures.

Listed Equities		
Risk Level	Number of investees	Percentage of portfolio by market value
1	19	27.39%
2	11	30.49%
3	4	27.59%
4	1	6.05%
5	1	8.48%
Sum	36	100%



Domestic Corporate Bonds		
Risk Level	Number of investees	Percentage of portfolio by market value
1	14	25.16%
2	9	48.33%
3	1	5.50%
4	2	21.01%
5	0	0.00%
Sum	26	100%



Unlisted Equities		
Risk Level	Number of investees	Percentage of portfolio by market value
1	4	0.40%
2	0	0.00%
3	1	37.31%
4	2	62.29%
5	0	0.00%
Sum	7	100%



Underwriting and Pre-listing tutoring		
Risk Level	Number of investees	Percentage of portfolio by market value
1	28	23.19%
2	4	2.92%
3	2	73.89%
4	0	0.00%
5	0	0.00%
Sum	34	100%



5-3 Scenario Analysis of Transition Risks

► Market risk and credit risk analysis of SKL’s investment portfolios scenario analysis

Considering the business characteristics of SKL, which mainly invests in fixed income securities and equities, and the fact that specific high climate risk industries are expected to be the first to be affected by climate change in the future, the asset and industry class for the investment portfolio scenario analysis are mainly focused on bonds, equities and high climate risk industries. To understand the potential financial impact of the transition risk on its investment portfolio, SKL has selected the parameters published by the NGFS Scenario Explorer to establish a model that simulates and estimates the financial impact of the relevant financial indicators under the influence of transition risk scenarios. The assumptions and results of scenario analysis are described below:

Assumptions and Parameters of Transition Risk Scenario Analysis

Bonds and equities investments				
Climate Scenarios	Affected Asset Scope	Forecast Period and Interval	Input Parameters	
			Scenario Parameters	Financial Parameters
Current Policies	The bond and security investment targets, as well as long-term corporate financing loans that belong to industries with high climate risk.	2022-2050 (annually)	<ul style="list-style-type: none"> • Energy Consumption • Energy Prices • Carbon Dioxide Emissions • Carbon Prices 	<ul style="list-style-type: none"> • Balance Sheet • Income Statement • Cash Flow Statement
Net Zero 2050	The bond and security investment targets, as well as long-term corporate financing loans that belong to industries with high climate risk.	2022-2050 (annually)	<ul style="list-style-type: none"> • Energy Consumption • Energy Prices • Carbon Dioxide Emissions • Carbon Prices 	<ul style="list-style-type: none"> • Balance Sheet • Income Statement • Cash Flow Statement

Bonds			
Climate Scenario	Changes in credit ratings by climate scenarios		
	Short Term	Middle Term	Long Term
Current Policies	The average downgrade is 0-1 credit ratings.	The average downgrade is 1 credit ratings.	The average downgrade is 1-2 credit ratings.
Net Zero 2050	The average downgrade is 1 credit ratings.	The average downgrade is 1 credit ratings.	The average downgrade is 1-2 credit ratings.

Equities	
Climate Scenarios	Financial impacts by climate scenarios
Current Policies	<ul style="list-style-type: none"> • Financial Impact Indicator: : EBITDA Margin • Compared with 2022, the largest drop of EBITDA Margin of investment targets will be 3.42%.
Net Zero 2050	<ul style="list-style-type: none"> • Financial Impact Indicator: : EBITDA Margin • Compared with 2022, the largest drop of EBITDA Margin of investment targets will be 15.47%.

Climate Risk Stress Tests

Based on the simulated scenario parameters from the above analysis, Shin Kong Life Insurance has classified its existing risk positions according to credit risk and market risk. Through stress tests, the impact of expected credit losses and market risk limits on such risk exposure has been calculated as follows:



Credit risk

Through evaluating the transition risk of industries affected by high climate change risk in the NGFS scenario, the expected credit losses under stress scenarios have been estimated by measuring changes in credit ratings, Probability of Default (PD), and Loss Given Default (LGD) of collateral positions affected by physical risks.



Market risk

Based on the impact of specific transition risk in climate stress scenarios on the operations of stock and bond issuing companies, the execution method of the stress tests has estimated the extent to which the valuation results of stock and bond positions are affected under the stress scenario.

Bonds investment

Climate Scenarios	Financial Impact Estimated by Stress Tests on the Company
Current Policies	<p>Credit risk Credit losses expected to increase by 3.59% compared to the end of 2022</p> <p>Market risk Financial impact losses representing approximately 0.84% of the total value of bond investments at the end of 2022</p>
Net Zero 2050	<p>Credit risk Credit losses expected to increase by 7.48%</p> <p>Market risk Financial impact losses representing approximately 0.87% of the total value of bond investments at the end of 2022</p>

Equities investment

Climate Scenarios	Financial Impact Estimated by Stress Tests on the Company
Current Policies	<p>Credit risk Financial impact losses representing approximately 0.29% of the total value of bond investments at the end of 2022</p>
Net Zero 2050	<p>Credit risk Financial impact losses representing approximately 0.47% of the total value of bond investments at the end of 2022</p>

SKB' lending portfolios scenario analysis- credit risk analysis

SKB domestic carbon-intensive emissions industries

SKB identified 35 borrowers at the end of 2022 who are large carbon emitters regulated by the Environmental Protection Administration. We plan to use the Global Change Analysis Model (GCAM5.3) to estimate their carbon emissions at various points in time and calculate the carbon cost in different scenarios. The carbon cost will be entered into the bank's internal credit rating model to observe changes in credit ratings, calculate expected credit risk loss rates, and determine the loss amount. The main scenarios are as follows:

Financial impact under climate scenarios in 2050

Current Policies	Our large carbon emitter borrowers regulated by the Environmental Protection Administration had no credit rating downgrade and no increase in expected loss of credit risk.
Net Zero 2050	Four of our large carbon emitter borrowers regulated by the Environmental Protection Administration had their credit rating downgraded by one grade, 1 borrower was downgraded to two levels, and 1 borrower was downgraded to three levels. The expected loss amount of the increased credit risk was about NT\$ 2,374,000

Overall distribution of transition risk levels for investment and lending positions

In addition to the assessment of transition risk for carbon-intensive clients, Shin Kong Bank also performed FSC's climate change scenario analyses by counterparty industry. The results are as follow:

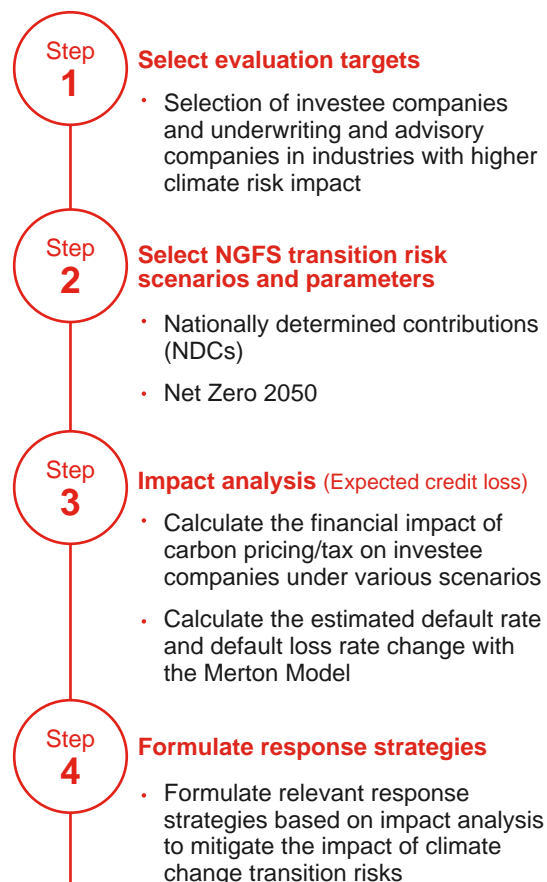
Distribution of transition risk levels for domestic and overseas credit and investment positions

Position \ Transition risk levels	Low	Medium-low	Medium	Medium-high	High
Domestic and overseas credit and investment	56%	14%	14%	8%	8%

The table above displays that Shin Kong Bank's borrowers and investee companies face limited impact on revenue loss due to transition risks. The financial impact on Shin Kong Bank remains manageable.

► Transition risk scenario analysis for MasterLink Securities

To mitigate climate impact on MasterLink's investment returns, we regularly evaluate transition risks with climate-related scenarios to reflect future climate change exposure of investee companies' operations. We also perform potential loss analysis to facilitate relevant climate risk management strategies or response measures. The Company's transition risk scenario analysis procedure is as follows:



Select assessment targets and scenarios

We select assessment targets and scenarios by screening investment targets with a market capital over NT\$100 million, which simultaneously conform to the Company's definition of investments in carbon-intensive sectors and are among the top twenty carbon emitters regulated by the EPA. We apply NGFS's climate change scenario framework and parameters with NDCs and Net Zero 2050 scenarios in analyzing industry growth rates and carbon tax/levy pressure on the probability of default (PD), loss given default (LGD), and expected increase in credit losses to estimate the transition impact on investee companies.

Sector	Investees	Proportion of overall investment portfolio in carbon-intensive emission industries (Including stock and bond investment portfolio)
Cement and aggregates	Company 1	16.84%
Integrated public utilities	Company 2	15.20%
Basic and diversified chemicals	Company 3	13.66%
Cement and aggregates	Company 4	12.16%
Basic and diversified chemicals	Company 5	7.92%
Integrated oils	Company 6	4.11%
Steel producers	Company 7	3.32%
Composition of investments in carbon-intensive sectors (including equity and bond portfolios)	-	73.22%

Note: Calculated using the investment portfolio credit risk analysis method in Appendix 8-2.

Response strategies for transition risk scenario analysis results

Transition risks that investment positions might face by 2050 were simulated with the aforementioned NGFS scenarios. The expected increase in credit losses for transition risk scenarios was calculated by evaluating changes in probability of default (PD) and loss given default (LGD). Results indicate that the loss amount under NDCs scenario and the potential change in expected credit losses generated by Net Zero 2050 are approximately 0.02% to 0.76% of the Company's net value at the end of 2022, suggesting a minor financial impact that would not significantly affect the Company.

5-4 Supply chain risk

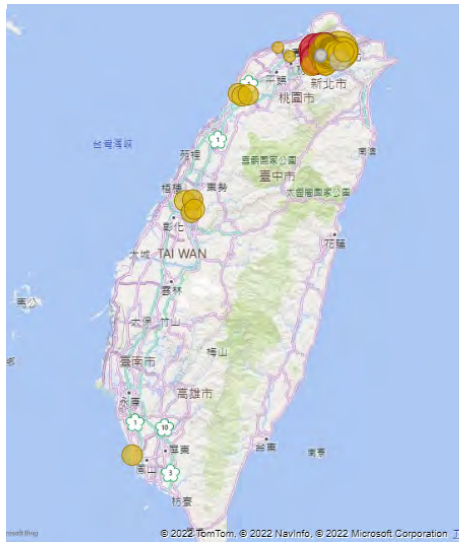
► Disaster Risk Analysis

In order to understand the operating impact of suppliers under climate change to help Shin Kong Group assess the impact on procurement management, we conduct flood and landslide disaster risk identification in RCP4.5, RCP6.0 and RCP8.5 scenarios for upstream suppliers. The analysis results show that under the scenarios of RCP4.5 and RCP6.0, the number of suppliers located in high climate risk areas is minority, and the ratio of their purchase amount to the total purchase amount is only about 1.9%. While under RCP8.5, the number of suppliers with high risk of flooding and landslides increased, and the ratio of their purchase amount to the total purchase amount rose to 9.7%. After assessment, most of the physical climate risks have no significant financial impacts on our company's upstream suppliers under the above three scenarios, and only the flooding risk under the RCP8.5 scenario has a slight impact on the Company. The Company will conduct supplier on-site audits and supplier conferences to recommend suppliers with higher flooding risks to install flood control equipment, establish business continuity planning, etc., to avoid possible losses caused by climate risks.

The ratio of the purchase amount of suppliers with high risk of flooding and landslides to the total purchase amount of SKFH under the scenario simulation.

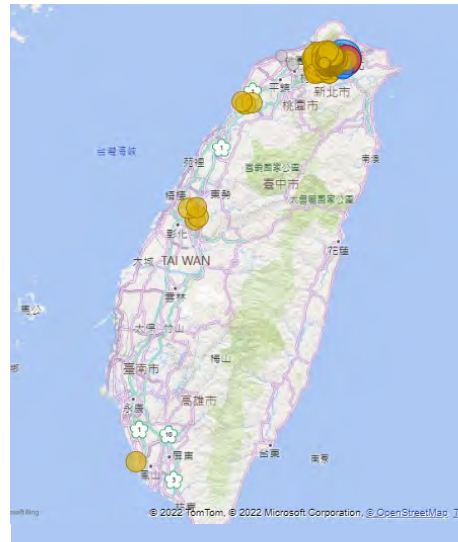
Flooding

RCP 4.5 : 0% RCP 6.0 : 1.5% RCP 8.5 : 8.5%



Landslide

RCP 4.5 : 0% RCP 6.0 : 0.4% RCP 8.5 : 1.2%



1 2 3 4

► Carbon Fee for Market Risk Analysis

In response to the international trend of promoting net zero emissions, many countries have successively indicated that they will implement a carbon pricing system in the future, and Taiwan is predicted to implement a carbon fee mechanism from 2024. In order to understand the financial impact of the suppliers that we cooperate with under the carbon tax or carbon fee collection policy in the future, and to evaluate the company's potential transition risks, we simulate the failure of major suppliers to develop new energy-saving and carbon-reduction technologies based on three scenarios of the Network of Central Banks and Greening the Financial System (NGFS). As the implementation of the policy leads to the increase of carbon costs and the increase of suppliers' operating expenses, we assume that suppliers will transfer all the carbon costs to Shin Kong Group's purchase expenses.

The analysis results show that: Taking 2050 as the year to review the increase in Shin Kong Group's purchase expenses, it can be found that if the government does not implement new active carbon reduction measures (Current Policy), we may have to pay 0.04% more of the purchase expenses. If the government follows the Nationally Determined Contributions (NDCs) commitment to transition, we may have to pay 0.42% more of the purchase expenses. If government undertakes a gradual transition to achieve net-zero emissions by 2050 (Net Zero 2050), we may have to pay 7.18% more of the purchase expenses.

Under different scenarios, the Company may not only pay higher purchase expenses due to suppliers passing on the carbon cost in exchange for the goods and services they provided, but also may face the situation of changing suppliers. For mitigating the above situation, the Company requires all suppliers to sign a letter of commitment to sustainability and conduct regular supplier risk assessments. In the future, we will continue to strengthen supplier communication, so that suppliers understand the need for low-carbon transition, so as to jointly strengthen climate governance and achieve sustainable value chain.

The increased ratio of Shin Kong Group's purchase expenses to suppliers under the NGFS scenario

Scenario	Carbon fee region	The increased ratio of purchase expenses to suppliers (%)		
		2030	2040	2050
Current Policies	TWN	0.02%	0.03%	0.04%
NDC	TWN	0.03%	0.23%	0.42%
Net Zero 2050	TWN	3.01%	4.78%	7.18%

Note 1: The data source of carbon fee region and carbon fee is the NGFS database.

Note 2: The base year for the increase in purchase expenses to suppliers is the total purchase expenses of Shin Kong Group's suppliers in 2022.

06 Conclusion

Towards a Net-zero Future

In recent years, the frequency and intensity of global extreme climate events has increased. The World Economic Forum (WEF) has listed climate action failure, extreme weather event risks and biodiversity loss as major global risks by severity. SKFH realized that climate change is an imminent risk to financial institutions, so we conducted climate sensitivity assessment of operations and investment and lending portfolios in 2020. After the internal assessment, we established climate governance mechanism and formulated short-, medium- and long-term climate strategies in 2021.

The assessment results of this report help SKFH establish a comprehensive measurement and outline for climate risk, and prompt us to raise the level of governance on climate issues. In the process of climate risk and carbon emission assessment of investment and lending portfolios, SKFH also observed that the current carbon emission data disclosure is insufficient, and the general methodology still needs to be developed. We look forward to working with stakeholders to improve the data quality and methodological research of climate change assessment, and bring more scientific and innovative thinking to the promotion of climate action in the future.





"Low-carbon", "innovation", and "common good" are the sustainable values guarded by SKFH. On the pathway of low-carbon economic transition, SKFH will continue to practice and pursue progress, and join hands with the industries to move towards net-zero society, so as to achieve the Paris Agreement. The agreement aims to limit the long-term temperature rise to no more than 1.5°C, and at the same time actively negotiate with upstream and downstream stakeholders to develop diversified ESG products and become a leader company in sustainable finance.



07 Appendix

7-1 TCFD Recommended Disclosures Index Comparison Table

According to the TCFD disclosure framework issued by the Financial Stability Board (FSB) in 2021 (revised edition), its four major aspects are oriented to the TCFD report publicly disclosed by Shin Kong Financial Holding. The comparison table is as follows

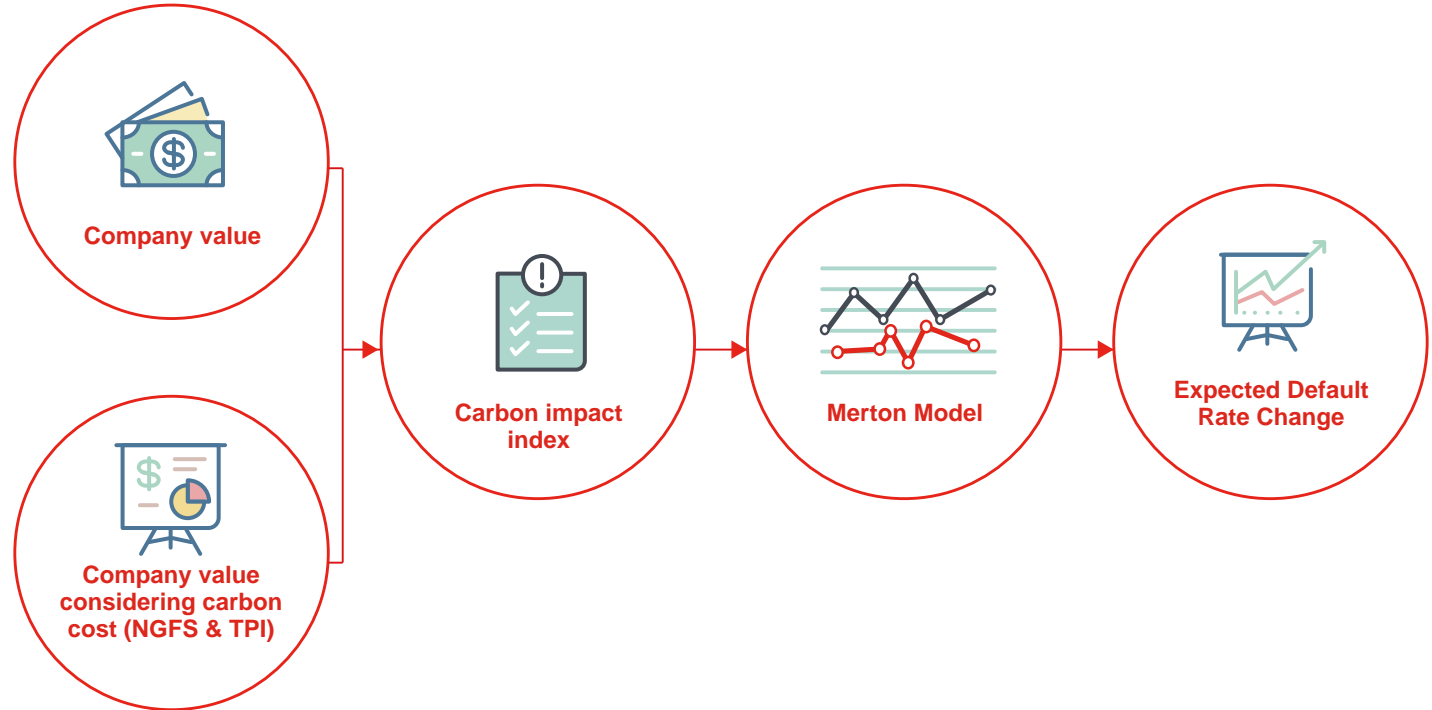
TCFD Framework	General Guidance	chapter	page
 Governance	Describe the board's oversight of climate-related risks and opportunities	CH2-1	P5
	Describe management's role in assessing and managing climate-related risks and opportunities.	CH2-1	P5
 Strategy	Describe the climate-related risks and opportunities the company has identified over the short, medium, and long term.	CH3	P9-12
	Describe the impact of climate-related risks and opportunities on the company's businesses, strategy, and financial planning	CH3	P9-12
	Describe the resilience of the company's strategy, taking into consideration different climate-related scenarios.	CH5	P17-31
 Risk Management	Describe the company's processes for identifying and assessing climate-related risks.	CH3	P8-9
	Describe the company's processes for managing climate-related risks	CH2-1	P5
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management	CH2-2、CH2-3	P6-7
 Metrics and Targets	Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process.	CH1-2	P3-4
	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 category 15 greenhouse gas (GHG) emissions, and the related risks	CH1-2、CH4-3	P3、P14-15
	Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets.	CH1-2、CH4-4	P3、P16

7-2 Investment Portfolios- Financial Risk Analysis Method

The credit risk of corporate bonds has a significant impact on the value of the investment portfolio. Changes in climate risks and carbon emission policies will affect the company's credit risk assessment, and make investment returns subject to huge uncertainties.

In order to assess the climate-related risks and opportunities under global environmental changes, we first used the discounted free cash flow model to calculate the market value of investee companies, and then adopted carbon density provided by The Transition Pathway Initiative (TPI) and carbon price provided by NGFS under three scenarios of Below 2°C, NDCs and Net Zero 2050 to recalculate the companies' market value considering the carbon cost. Based on the result to calculate the carbon impact index of each company, and bring it into the Merton Model to calculate the company's expected default rate change. The analysis results show that under the influence of carbon costs in different scenarios, the decreases in market value and increases in default rate of the investee companies are slightly. However, if the investee companies don't clearly plan the carbon reduction path, the default rate may increase significantly.

Model framework





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