

# TCFD

Yuanta Financial Holdings  
Climate-related Financial  
Disclosures Report 2022

# Overview

With the sustainability vision of "Become an International Sustainability Benchmarking Company to Actively Promote a Better Future for Future Generations", the Group has an obligation to disclose the climate risks it faces and adopt proactive strategies as a member of the financial system the society relies on in tackling one of the biggest challenges mankind faces in this century, namely the impact of climate change. The Group aims at leveraging the influence of fund providers and managers to drive the low-carbon transformation of the value chain towards the ultimate goal of net zero carbon emissions.

This report describes the Group's management of climate-related risks and opportunities through the following four aspects to demonstrate its commitment to mitigating and adapting to climate change.

## Governance

Set up a comprehensive climate governance structure with the board of directors as the highest governing body under which the risk management committee and the sustainable development committee exist to oversee and manage climate-related risks and opportunities, as well as promoting the overall climate strategies and policies (Chapter 1)

## Metrics and Targets

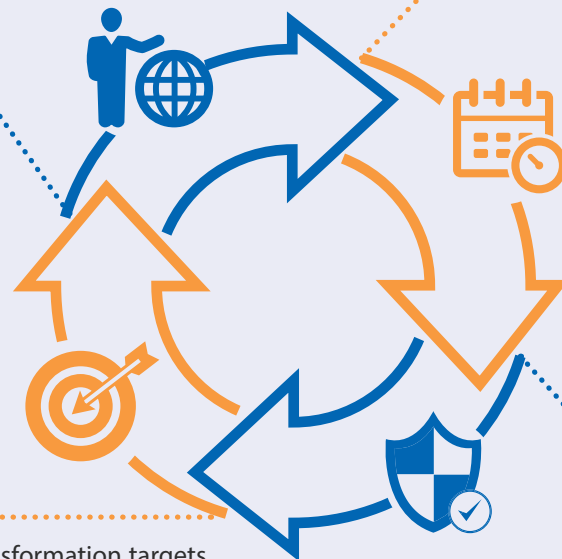
Set metrics for low-carbon operations and low-carbon transformation targets as well as short-, medium- and long- term targets for regular tracking and progress disclosure (Chapter 4)

## Strategies

Quantify the financial impact of climate-related risks and opportunities with scenario analysis models, set science-based targets and adopt low-carbon strategies to enhance the Group's operational resilience, as well as promoting the low-carbon transformation of overall industries (Chapter 2 and Chapter 3)

## Risk Management

Integrate climate risks and the existing risk management framework and develop relevant management policies to identify, measure and manage climate-related risks and opportunities (Chapter 2)



# Contents

Overview.....	1
A word from the Chairman ...	3
About This Report .....	4
Net-Zero Commitment & Transition Pathway .....	5

## 01

### Governance..... 6

1.1 Board Oversight of Climate Risks & Opportunities.....	7
1.2 Management of Climate-related Risks and Opportunities.....	9
1.3 Major Decisions and Implementation Results of Climate Governance in 2022.....	11

## 02

### Comprehensive Climate Risk Management and Quantitative Analysis..... 12

2.1 Identification, Measurement and Management .....	13
2.2 Short-, Medium- and Long-term Risks and Opportunities.....	17
2.3 Quantitative Financial Analysis of Climate Change.....	20

## 03

### Low-Carbon Strategy .. 40

3.1 Strategy Overview .....	41
3.2 Setting SBT.....	41
3.3 Implementation of Internal Carbon Pricing .....	45
3.4 Low-carbon Operations .....	46
3.5 Low-carbon Transformation .....	48
3.6 Communications and Initiatives.....	61

## 04

### Metrics and Targets .... 64

4.1 Metrics and Targets for Low-carbon Operation Management .....	65
4.2 Metrics and Targets for Low-carbon Transformation Management .....	66

## 05

### Future Outlook... 68

### Appendix..... 70

## A word from the Chairman

Climate change has endangered and threatened the global economy, society, and environment. Natural disasters caused by extreme weather continue to sound the alarm for the human world. Limiting global temperature rises and mitigating greenhouse effects from exacerbating has, therefore, become one of the most difficult challenges of this century. The climate crisis, volatile sociopolitical landscapes, and geopolitical conflicts intertwine to create a multifaceted and complex risk landscape that poses ever-serious challenges to company operations. Strengthening operational resilience is, therefore, a pressing matter.

In the face of the climate crisis, many countries have adopted mitigation strategies and actions, committing to strive for net-zero emissions by 2050. In response to the global net-zero trend, the Executive Yuan of Taiwan also announced, "Taiwan's Pathway to Net-Zero Emissions in 2050," hoping that the finance sector can leverage its financial capacity to guide industries to net-zero transitions. As a global citizen, Yuanta Financial Holdings finds itself obligated to actively reduce GHG emissions and mitigate climate impacts, continuously provide financial products and services that have positive impacts on the environment and society, and channel funds to companies spotlighting sustainability and climate issues. In other words, we believe that we should play a critical role in facilitating low-carbon transitions in companies.

To effectively manage carbon emissions and fulfill global GHG reduction goals, Yuanta joined the Science Based Targets initiative (SBTi), complying with SBT methodology to formulate emission reduction strategies and pathways. In 2022, Yuanta became the fourth financial institution in Asia to be approved by SBTi, which

ensures that the company's carbon reduction directives align with the Paris Agreement's commitment to limit global warming to 1.5°C. We also initiated Internal Carbon Pricing (ICP), a mechanism to internalize externalities from GHG emissions and reflect implicit cost of carbon emissions in operating costs to help reduce carbon emissions and create a positive cycle toward low-carbon operations.

As a green pioneer in environmental change, we disclose results from carbon management each year by completing questionnaires from the Carbon Disclosure Project (CDP) and striving for carbon reduction. As a result, we have made the CDP Climate Change A List for three consecutive years and ranked at the "Leadership Level" for five years in a row. Furthermore, we continue to exert our impact and enforce sustainable supply chain management, engaging with the upstream and downstream supply chains to manage carbon reduction and drive a green production chain. Related efforts have secured Yuanta an A leader in the Leaderboard in the CDP's Supplier Engagement Rating (SER).

Yuanta also incorporated environmental, social, and governance (ESG) ideals into our corporate culture and operating strategies. To strengthen climate risk mitigation and adaptability, we have introduced climate issues as an important part of our operating strategies, promoting related issues by spotlighting both climate risks and opportunities under the Task Force on Climate-Related Financial Disclosures (TCFD) framework. In the future, we will continue to act as a pioneer in sustainability, urging all sectors to value sustainable development and collaborating with clients to combat climate change as we strive for a better future.



Chairman,  
Yuanta Financial Holdings

### Tony Shen

## About This Report

As climate change and extreme weather continue to exacerbate, climate action has become a critical issue globally. The 2022 United Nations Climate Change Conference (COP27) focused on taking action towards achieving the world's collective carbon reduction goal, hoping for the world to work together to limit global warming to 1.5°C and urging nations to gradually reduce emissions from burning coal. To align with global net-zero trends, Taiwan's Executive Yuan announced "Taiwan's Pathway to Net-Zero Emissions in 2050," hoping that the finance sector can leverage its funds, products, and engagement to guide industries toward net-zero transitions through market mechanisms and financial capabilities, thereby strengthening sustainable development for society in general.

Since 2018, the Group has followed the disclosure framework of the Task Force on Climate-related Financial Disclosures (TCFD)<sup>①</sup> each year to disclose the effectiveness of climate management in the Company's ESG Report<sup>[1]</sup> and its website. Since 2021, the Group goes further by issuing a separate Yuanta Financial Holdings TCFD Report to strengthen the integrity and transparency of the climate-related information disclosure, respond to stakeholder expectations, and demonstrate the Group's proactive response to the risks as well as opportunities brought about by climate change.

Published in the "ESG section" of Yuanta Financial Holdings' website, this report is available in both Chinese and English, covering the contents the 4 core climate-related areas in 2022 (governance, strategy, risk management and metrics and targets) for its 8 subsidiaries (Yuanta Securities, Yuanta Bank, Yuanta Life, Yuanta Funds, Yuanta Futures, Yuanta Venture Capital, Yuanta Asset Management and Yuanta Securities Investment Consulting). Part of the information disclosure covers historical data. The "Company" in this report refers to Yuanta Financial Holdings, the "Group" refers to Yuanta Financial Holdings and its 8 subsidiaries, and the "whole Group" refers Yuanta Financial Holdings and its all subsidiaries (including oversea sites).

## Net-Zero Commitment & Transition Pathway

Net zero emissions have become a global core goal. In response to global climate issues, our country has included "green finance" as one of the 12 key strategies for net zero transformation. To guide the financial industry and businesses in addressing climate change and sustainable development, the Financial Supervisory Commission (referred to as the FSC) released the "Green Finance Action Plan 3.0" in September 2022. Through financial mechanisms, the FSC aims to encourage stakeholders to prioritize and implement ESG (Environment, Society, and Governance) practices, and construct a robust sustainable financial ecosystem. Additionally, the FSC has invited our company and other industry peers to form the "Coalition of Movers and Shakers on Sustainable Finance" to consolidate and leverage the influence of the financial industry. This alliance not only commits to taking more proactive actions in areas such as "funding and engagement" and "information disclosure," but also collaborates with the government through the "Financial Industry Net-Zero Working Platform" to develop relevant tools, guidelines, and solutions, thereby advancing the goal of sustainable development for industries and society.

Our group adopts a systematic and scientific approach to reduce carbon emissions, with carbon reduction efforts spanning from our own operations to the most critical investment and financing areas of the financial industry. We have set comprehensive emission reduction targets and strategies, demonstrating our commitment to combatting climate change. In 2022, our group's carbon reduction target was approved through the Science-Based Targets initiative (SBTi) review. We pledged to reduce absolute Category 1 and 2 emissions 42% by 2030 from a 2020 base year. Our lending and investment portfolios also follow "financial sector science-based targets guidance" in setting reduction targets. For detailed information, please refer to Chapter 3.2 Setting SBT of this report or publicly available target commitments on the SBT official website. Meanwhile, through the Climate Finance Operating Guidelines, we actively manage the risks and impacts of climate change. By incorporating the net zero transformation concept into our daily operations and decision-making considerations through four dimensions—"Sustainable Finance," "Low Carbon Operations," "Low Carbon Supply Chain," and "Sustainable Advocacy"—we aim to enhance climate change governance culture.

In the future, our group will continue to promote net zero transformation and regularly review the commitments made to ensure the effectiveness of climate-related strategies and actions. We will also stay abreast of changes in domestic and international policies and trends, making rolling adjustments to our group's carbon reduction strategies and actions. Based on the nature of our business and operational scope, we will set strategic directions and emission reduction pathways, steadily progressing towards achieving net zero emissions in the long term.



# 01

## Governance

1.1 Board Oversight of Climate Risks & Opportunities

1.2 Management of Climate-related Risks and Opportunities

1.3 Major Decisions and Implementation Results of Climate Governance in 2022

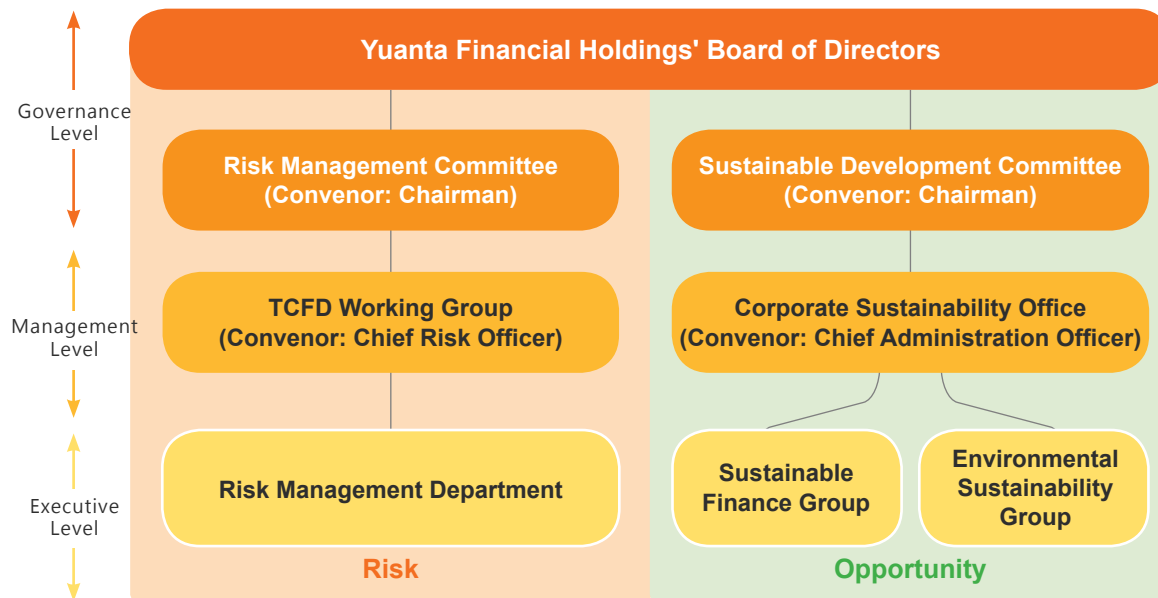


## 1.1 Board Oversight of Climate Risks & Opportunities

The Company's board of directors is the highest governing body for climate-related issues, responsible for overseeing and managing climate-related risks and opportunities, as well as promoting the Group's overall climate strategies and policies. The Company has involved the climate-related issues into the outline of the Board's meetings about 12 times, including the climate risk reports, various risk limits and thresholds for monitoring indicators, and the process of sustainability etc. All cover climate change risk content. It also integrates climate risk management into the organizational culture, discusses climate risk issues, evaluates, and continues to supervise the implementation of various risk management mechanisms to guarantee stable operations for the Group.

The "Risk Management Committee" and the "Sustainable Development Committee" have been set up under the board of directors, with the Chairman serving as the convener for both to demonstrate the Group's emphasis on climate governance.

### ◀ Governance Framework for Climate-related Risks and Opportunities ▶



## Risk Management Committee

The Risk Management Committee is a non-functional committee under the board of directors and composed of the chairmen of Yuanta and its subsidiaries, the Chief Risk Officer, and other candidates appointed by the convener. The committee meets, at a minimum, quarterly. Yuanta and its subsidiaries shall report on risk analyses and risk management progress during meetings and report meeting information and resolutions to the latest audit committee and board of directors meetings after risk management committee meetings. Its main responsibilities include assisting board oversight of climate risk management system enforcement and determining annual risk limits and thresholds for monitoring indicators (including climate change risks), integrating, and coordinating risk management issues shared across subsidiaries, and advocating and communicating material risk management items to help reinforce risk management.

In March 2023, the Risk Management Committee was restructured as a functional committee composed of three directors nominated by the Board, over half of which shall be independent directors. To strengthen Yuanta's risk management culture, the roles of convener and chairman shall be assumed by independent directors as well.



## Sustainable Development Committee

The Sustainable Development Committee is a sub-committee to the board of directors, made up of the Chairman of the Board and independent directors. The Committee convenes at least two times a year (five times in 2022), and additional meetings are held as necessary. The Sustainable Development Committee takes charge of the Group's sustainable development strategies, assists in integrating the corporate value of sustainable development into the Company's business strategy, supervises and manages the Group's overall sustainability issues and risks and opportunities related to climate change, regularly decides and reviews the Group's short-, medium- and long-term goals and performance indicators of the sustainability strategies, as well as the Corporate Sustainability Office's report on the planning and implementation results of tasks related to climate change, and supervises the management of the potential impact on the Group's operations in the face of climate change, as well as reviewing potential opportunities in climate policy and market transformation to improve the Group's operational performance and climate resilience.



### The Board's Climate background and expertise

In the face of the increasingly significant impact of climate change, the composition of the Company's board of directors takes into account the importance of climate-related expertise and background. Besides professional competences in finance, banking, insurance and corporate governance, practical experience and knowledge of sustainable management issues are also taken into consideration when selecting independent directors.

The expertise of the independent directors covers corporate governance, financial institution management and business practices. They have held important positions in relevant supervisory agencies and practical areas, as well as actively promoting corporate governance in Taiwan. Their professional and practical experience continue to assist the Company in strengthening corporate governance and sustainable operations, supervising the operation of the Company's sustainable development committee.

In addition, the independent directors have research and teaching experience covering climate risks in the financial sector, ESG/sustainable investment, sustainable financial products and financial regulations, they supervise climate-related operations and the development of mechanism with their expertise and strengths.

As the world pays more and more attention to climate issues, the directors continue to be at the forefront of the road to sustainability under the rapid change and booming development trend by participating in various seminars and training sessions, in order to improve corporate governance capabilities and fulfill supervisory responsibilities.

## 1.2 Management of Climate-related Risks and Opportunities

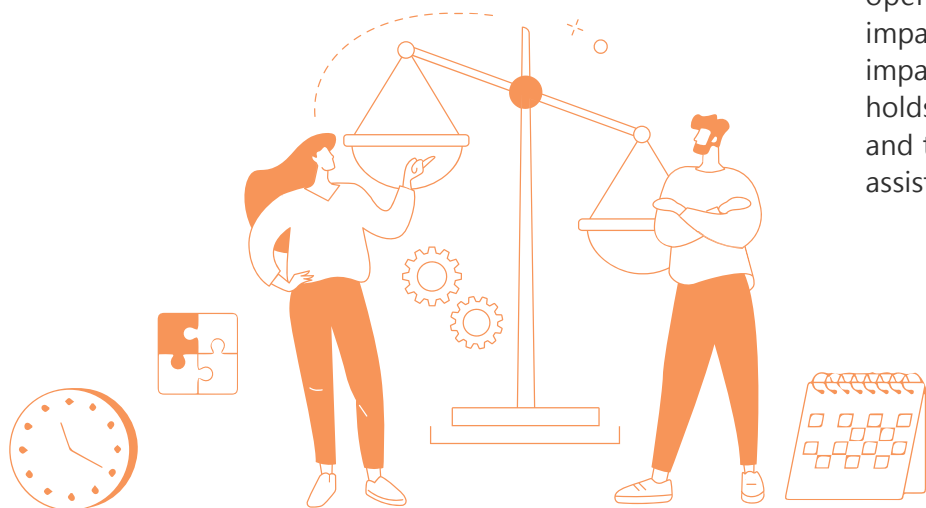
The Company's climate governance-related units include the "TCFD Working Group" and the "Corporate Sustainability Office," each of the unit reports separately risk monitoring and implementation performance to the "Risk Management Committee" and "Sustainable Development Committee".

### TCFD Working Group

Yuanta established the TCFD Working Group in 2021 to develop a robust climate risk governance framework. The Working Group is composed of the Yuanta's Risk Management Department and is directed by the Chief Risk Officer. It aims to facilitate comprehensive management of issues and impacts relating to climate risks by identifying, compiling, evaluating, and analyzing climate risks and opportunities; deliberating and establishing systems to monitor climate risks; and assisting and overseeing subsidiaries with climate risk management.

### Corporate Sustainability Office

To reduce the potential impact of climate change on the Group's operations, identify potential opportunities in climate policy and market transformation, and improve the Group's operational performance and climate resilience, the "Sustainable Finance Group" and "Environmental Sustainability Group" under the Corporate Sustainability Office (charged by our Chief Administration Officer who responsible for sustainability) are responsible for the implementation of climate sustainability policies and relevant plans. The Sustainable Finance Team is in charge of promoting sustainable financial services and products, including the establishment of "Sustainable Finance Guidelines<sup>[2]</sup>", green credit promotion, green products and responsible investment, as well as other products and services with environmental and social benefits. The Environmental Sustainability Team on the other hand, takes charge of internal operations and the implementation of energy and climate goals, including increasing the proportion of renewable energy use, low-carbon operation such as energy conservation and carbon reduction, reducing the negative impact of the business processes on the environment, and reducing the Group's risk of impact from climate change. Each group holds occasional meetings with subsidiaries and holds at least one working meeting every quarter to track the implementation progress and target achievement of the projects, as well as providing resources and guidance to assist in reviewing the operations when necessary.



## Climate Linked Incentives for Management

In order to effectively promote climate governance strategies and policies, the Group has formulated relevant incentives to encourage management to promote and implement various actions. The performance evaluation of the Group's senior management (including the CEO level and department heads) includes ESG-related indicators, and the incentive mechanism is linked to various operational targets, for examples: promoting energy conservation and carbon reduction, renewable energy procurement, supplier evaluation management, etc. In addition, for members in departments responsible for executing climate-related actions, their assessments are also linked to environmental and climate metrics to enhance the implementation of sustainable management. The Group expects to strengthen the core spirit of climate governance through the organization's top-down performance mechanism.

### ◀ Senior Management Performance Appraisal Form ▶

Category		Ratio	Description
Operational Objectives	Financial Objectives	70%	Financial indicators and competitiveness indicators
	Business Objectives		Annual business indicators, risk management indicators, and performance management indicators for reinvested businesses
	Sustainable Development Objectives (>10%)		2021-2025 Sustainable Development Strategy Roadmap for the Group, annual ESG key projects, and mid-to-long-term (3-5 years) development goals
Group Objectives		30%	Succession planning team and talent cultivation indicators, compliance with laws and regulations and internal control system management indicators, and Group operation support indicators

## Improving Climate-related Competencies for Management

The Group's management not only actively stays updated with the latest knowledge of climate trends, but also participates in external lectures, forums and exchanges with professionals in relevant fields. In the meantime, the Group leverages its influence as a member in the financial sector to join hands with stakeholders in keeping up with the trend in climate change governance.

### ◀ Major Lectures & Forums Featuring Yuanta 's Senior Management in 2022 ▶

Role	Event	Topic
Forum panelist	ESG Sustainable Finance and Responsible Investment Forum	<ul style="list-style-type: none"> <li>Innovations &amp; Challenges in the Financial Sector under Sustainable Finance 3.0</li> <li>Importance &amp; Challenges of TCFD Framework on Financial Sector to Sustainable Development in Taiwan</li> <li>Development of Taiwan's SASB ESG Rating &amp; Application of Sustainable Investments</li> </ul>
Keynote speaker	Training Program for Business Climate Development Management Professionals	<ul style="list-style-type: none"> <li>Corporate Climate Governance</li> <li>Sustainable Finance Action Plan &amp; Taiwan's regulatory response</li> </ul>
Forum panelist	5th Global Corporate Sustainability Forum (GCSF)	<ul style="list-style-type: none"> <li>Implement low-carbon strategies to accelerate net-zero transition</li> <li>Explore climate disclosures of concern to investors</li> <li>Share Yuanta 's carbon reduction strategies</li> </ul>

## 1.3 Major Decisions and Implementation Results of Climate Governance in 2022



### Environment and Energy and Climate Change Management Policy

Yuanta actively supports global net-zero emission trends and targets and has, therefore, passed the "Environment and Energy and Climate Change Management Policy<sup>[3]</sup>" formulated by the board of directors in 2022. In compliance with ISO 14001 Environmental Management System and ISO 50001 Energy Management System, the policy is dedicated to promoting environmental and energy management to reduce GHG emissions and fulfill environmental sustainability commitments. To reduce operational impacts on the environment, Yuanta complies with government policies, regulations, and guidelines and aligns with common standards from Taiwan and abroad to formulate strategies to mitigate climate change and related environmental and energy targets/plans, reduce energy and resource consumption, and enhance energy efficiency. As climate change has impacted the global economic landscape, industry structure, and policies, industries are taking climate action and extending protection for biodiversity to water resources and forests. Yuanta will continue to promote various environmental sustainability topics, incorporating them into the Group's management strategy as a cornerstone for sustainable management.



### Strengthen Climate Value-at-Risk (CVaR) management criteria and supervision threshold

Since 2020, the board of directors has determined the company's climate value-at-risk (CVaR) threshold to manage and reduce climate risks and impacts on company operations. The Risk Management Department reports monitoring data to the Board and senior management every quarter. Related departments are responsible for providing response measures in the event of threshold exceedance.

In the meanwhile, to enhance the climate-related risk management for investment positions, the Department also launched research into measuring CVaR for investment positions and completed a climate risk quantitative model in 2021, reporting the model's estimated parameters, control measures, and other information to the Board and senior management. In 2021, the Board determined the CVaR threshold for the whole Group's mediate-long-term investment positions. In 2022, the Board started requiring the Risk Management Department to monitor the Group's CVaR every month for exceedance. In 2023, the Yuanta's five major subsidiaries established their own CVaR thresholds, which have been approved by their respective boards. Risk Management Departments in subsidiaries are responsible for monitoring CVaR to supplant the Group's climate risk management.

# 02

## Comprehensive Climate Risk Management and Quantitative Analysis

- 2.1 Identification, Measurement and Management
- 2.2 Short-, Medium- and Long-term Risks and Opportunities
- 2.3 Quantitative Financial Analysis of Climate Change

## 2.1 Management of Climate-related Risks and Opportunities

### Include Climate Risk into the Existing Risk Management Framework

The Company has complete risk governance framework, policy and management regulations in place. The scope of risk includes financial risk, operational risk, law and compliance risk, and climate change risk, and areas of consideration include environmental protection (E), social responsibility (S), and corporate governance (G), where various risk management procedure, monitor indicators and thresholds are established by relevant responsible units to strengthen the Company's ESG risk management mechanism. The Company has formulated "Investment and Financing Measures for Climate Change Risk Management" and "Operational Risk Management Measures" particularly for climate change risk to establish climate risk management standards for investment and financing and corporate operations to ensure adequacy of risk management, and through identification, assessment, management, monitoring and report to ensure the climate change risk each business is exposed to so to meet risk management targets and risk tolerance level.

#### ◀ Scope of the Company's Risk Management Policy ▶



The Company has set up three lines of defense for risk management and enterprise risk management (ERM) where each line of defense has a well-defined organization, responsibility and function to ensure effective operation of the ERM. Our risk management policy integrates climate change risk into the existing risk management framework categorized with "investment and financing" and "corporate operations", covering assessment and management of transition risks and physical risks that include qualitative and quantitative analysis.

◀ Three Lines of Defense for Risk Management ▶

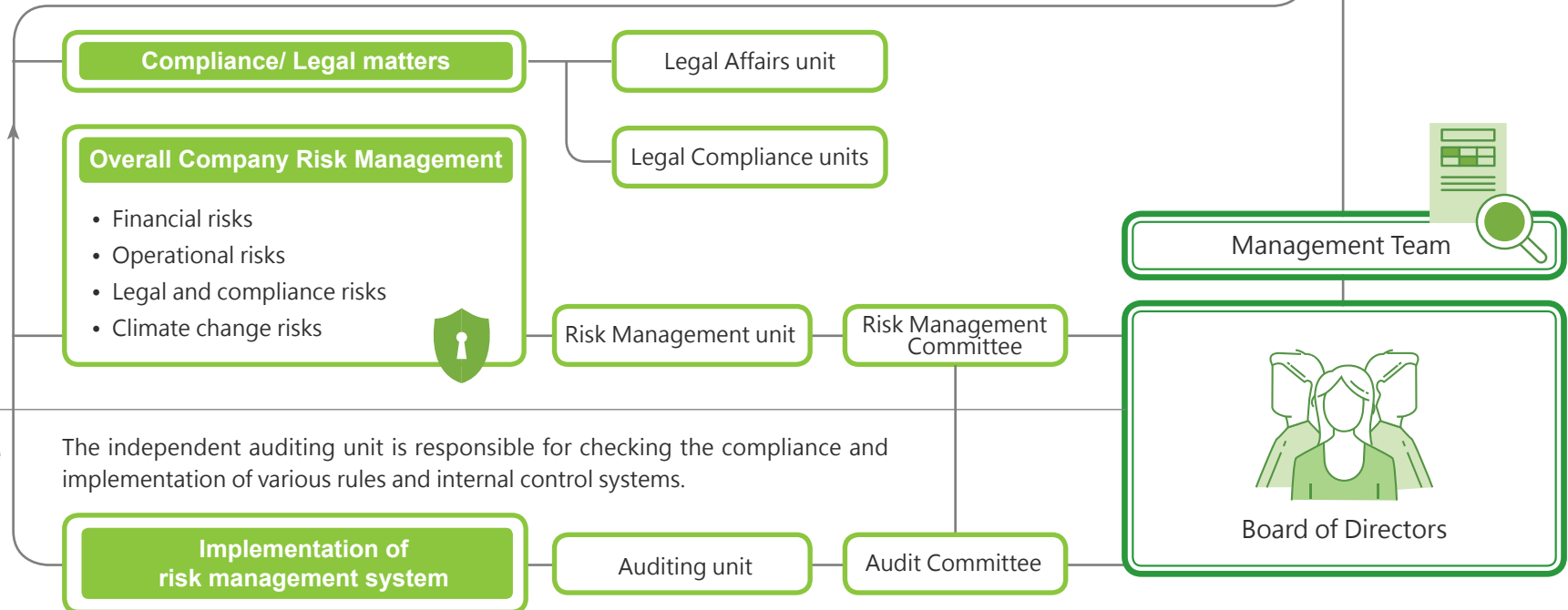
**1st Line of Defense**

Each business, operation, and management unit is responsible for implementing risk management procedures when performing related work.



**2st Line of Defense**

The independent risk management and compliance units are responsible for the planning, risk monitoring, and reporting of the risk management system and compliance system.



**3st Line of Defense**

The independent auditing unit is responsible for checking the compliance and implementation of various rules and internal control systems.

## Climate Risk Management mechanism

The Company has included climate change into the scope of risk management policy and formulated climate-risk-related management mechanism, clearly defined relevant responsible units' scope of responsibility and risk management procedures for all risks, and establish monitoring items and monitoring indicator thresholds so to strengthen the company and its big-five subsidiaries 'climate risk management procedure. The Company and its 5 subsidiaries have finalized the "Sustainable Finance Guidelines<sup>[2]</sup>" to formulate a green policy for investment and financing at the level of financial holdings. ESG factors are incorporated into the consideration of daily operations and decision-making through the principle-based framework and guidelines to identify industries that can be actively supported, as well as identify a list of companies that should be avoided. The measure of strengthening due diligence and assessment of companies with high ESG risks prompts companies to value governance, environmental and social risks to further fulfill their responsibilities as global citizens.

To further strengthen the Group's ESG screening mechanism for investment and financing, the Company has completed the "Industry-Specific Environmental and Social Risk Management Rules<sup>[4]</sup>" to regulate employees who work with industries with high environmental and social risks such as steel and iron, semiconductor and plastics material manufacturing. The rule specifies that the "Industry- specific Environmental and Social Risk Management Checklist" should be filled in by the subsidiary to understand the social and environmental management measures of business partners, review the potential impact of social and environmental risks of the clients and their ability to adapt to these risks to ensure the risks of all transactions are under control. In addition, the exclusion clause was added to specify the industries that are prohibited for investment and financing as well as the ones which require further evaluation.

### ◀ The Updated Terms and Conditions for "Industry-Specific Environmental and Social Risk Management Rules " ▶

#### Industries for which investment and financing are monitored

Industries related to coal, unconventional oil and gas, coal-fired power, etc.

#### Monitoring measures

1. Carefully evaluate the E&S risks
2. Require the company to improve or plan according to their potential E&S risks

#### Industries for investment and financing that fall short or fail to improve

**Potential clients** Prohibited from engaging in investment and financing businesses

**Existing clients** Limit the existing amount of investment and financing as is





## Climate Risk and Opportunity Management Procedure

The Company's climate risk and opportunity management procedure is divided into four steps, which are illustrated below: From risk and opportunity identification, measurement, monitoring to reporting.

### ◀ Climate Risk Management Procedure ▶

#### Risk and Opportunity Identification

- Each subsidiary identifies climate risks and opportunities based on the nature of business each year
- The Company's Risk Management Department integrates overall risk and opportunity identification
- Refers to the climate risk reports from international institutions



#### Risk and Opportunity Measurement

- Each subsidiary identifies the level of impact originated from the risks and opportunities based on the nature of business
- The scope of measurement includes the direction, timing and geographical location of impact, the extent to which companies in the value chain are affected as well as the financial impact
- The Company's Risk Management Department maintains a model for CVaR measurement to enhance the quantitative management of climate risks

#### Risk and Opportunity Reporting

- Formulate response strategies for all risks and opportunities as well as presenting the strategies to the sustainable development committee and board of directors
- Regularly present all risk indicators or limits that is used at the risk management committee and board of directors
- Report all climate risk information to the risk management committee and board of directors as needed

#### Risk and Opportunity Monitoring

- Formulate response strategies for all risks and opportunities as well as presenting the strategies to the sustainable development committee and board of directors
- The Company and its 5 major subsidiaries formulate quantitative indicators and limits for climate risks for monthly analysis, monitoring and reporting

## 2.2 Short-, Medium- and Long-term Risks and Opportunities

To understand the impact of climate change on the company, the risks and opportunities it will bring, as well as strengthening the Company's business resilience, the Group identifies and evaluates climate risks and opportunities based on the nature of its businesses with the lead of the risk management committee and the sustainable development committee. The aspects that are taken into consideration include the classification of climate risks and opportunities recommended by TCFD, the direction and timing of impact, geographical location, extent to which companies in the value chain are affected and its financial impact. The above-mentioned analysis is conducted on an annual basis. In 2022, the company identified 8 risks and 8 opportunities, with responsive measures and strategies formulated respectively based on the duration and size of impact.

### Climate Risk and Opportunity Matrix

◀ 8 Major Climate Risks and 8 Major Opportunities Matrix ▶

Size of Impact	Large	Opportunity 3		Transition Risk 1-1 Opportunity 5 Opportunity 6		
		Opportunity 4	Opportunity 8	Transition Risk 3		
	Medium	Opportunity 7		Physical Risk 1 Transition Risk 2 Opportunity 2	Opportunity 1	Physical Risk 2
			Transition Risk 4			Transition Risk 1-2 Physical Risk 4
Small					Physical Risk 3	
		Short-term	Medium-term	Long-term		

Duration of Impact

Risk	
Transition Risk 1-1	Cost for decarbonization policies and legal compliance-investment/financing clients
Transition Risk 1-2	Cost for decarbonization policies and legal compliance-own operation
Transition Risk 2	Cost for eco-friendly green energy transformation
Transition Risk 3	Investor divestment from high-polluting industries
Transition Risk 4	Impact on the Company's reputation for investing in highly polluting industries
Physical Risk 1	Increase in insurance premium cost for natural disasters and infectious diseases
Physical Risk 2	Extreme climate causes companies that receive investment/financing to halt their operations
Physical Risk 3	Losses from business locations and collateral damages due to flooding
Physical Risk 4	Losses from business locations and collateral damages due to a rise in sea level

Opportunity	
Opportunity 1	Improving energy efficiency in business locations
Opportunity 2	Green procurement and supplier management
Opportunity 3	Develop and promote low-carbon products and services
Opportunity 4	Customer engagement on sustainability and green consumption concepts
Opportunity 5	Sustainable investment and green loan
Opportunity 6	Sustainable development bond market
Opportunity 7	Cooperation with government agencies
Opportunity 8	Natural disaster crisis management and early warning measures

Note: 1. The definition for "short-term" for the company is a duration within a year, medium-term is 1-3 years, and long-term is over 3 years.  
 2. The size of the impact is determined by the results of internal discussions after considering domestic and foreign industry analysis reports and the Group's market research information.

## Analysis of the Financial Impact Caused by Climate Change

### ◀ Table of the Eight Financial Impacts Incurred by Climate Change and their Response Measures ▶

Risk	Risk type	Risk Description	Value chain stages covered by climate risk assessment	Time horizon(s) covered by climate risk assessment	Financial Impact	Response Measure
<b>Transition risk 1-1</b>	<ul style="list-style-type: none"> <li>Current Regulation</li> <li>Emerging Regulation</li> <li>Legal Risk</li> <li>Technology Risk</li> </ul>	Cost for decarbonization policies and legal compliance-Investment/financing clients	Own operations	Medium-term	Stricter regulations or lack of transition technique may cause extra carbon reduction costs for investment and financing targets, resulting in decreased profits for clients, a drop in stock prices, or increased credit risks, ultimately taking a toll on the Group's assets.	Keep a careful watch on the changes in international carbon tax and carbon-related regulations, and enhance engagement with high-carbon investment and financing targets.
<b>Transition risk 1-2</b>	<ul style="list-style-type: none"> <li>Current Regulation</li> <li>Emerging Regulation</li> <li>Legal Risk</li> </ul>	Cost for decarbonization policies and legal compliance-Own operation	Own operations	Long-term	The Group utilizes usage of renewable energy as its carbon reduction measures to achieve carbon reduction targets and comply with domestic policy and regulations. This can bring about additional costs which results in higher operational costs for the Group.	Continue to pay attention to and participate in the renewable energy market, and increase energy usage efficiency in all locations through active actions to reduce usage of non-renewable energy.
<b>Transition risk 2</b>	<ul style="list-style-type: none"> <li>Technology Risk</li> <li>Market Risk</li> </ul>	Cost for eco-friendly green energy transformation	<ul style="list-style-type: none"> <li>Own operations</li> <li>Investment and financing targets</li> </ul>	Long-term	Additional carbon reduction cost for investment and financing targets can occur due to transition, and not undergoing transition in time can decrease the client's revenue and share price or increase its credit risk, which in turn decreases the Group's assets.	Continue to pay attention to demands of low-carbon transition markets to support clients to undergo low-carbon transition.
<b>Transition risk 3</b>	Reputational Risk	Investor divestment from high-polluting industries	<ul style="list-style-type: none"> <li>Own operations</li> <li>Investment and financing targets</li> </ul>	Long-term	Institutional investors pay more attention to climate change and environmental issues. If investors have doubts about asset safety, they may divest from the investing, resulting in a decline in the Group's investment funds for asset management business.	Embed sustainable finance management procedures into the asset management process, as well as enhancing the review mechanism for investment targets with high pollution and high emissions to meet investors' expectations.
<b>Transition risk 4</b>	Reputational Risk	Impact on the Company's reputation for investing in highly polluting industries	Own operations	Long-term	High-polluting companies we invested have negative news, causing impact on the Group's reputation and investors divesting, which in turn tarnishes the Group's reputation or decreases investment capital for the asset management business.	Strengthen review, control and engagement on high-polluting investment and financing targets, and proactively become a sustainable financial institution and establish positive social image through autonomous initiative or participation of international actions.
<b>Physical risk 1</b>	Chronic Physical Risk	Increase in insurance premium cost for natural disasters and infectious diseases	Own operations	Medium-term	Natural disasters or infectious diseases threaten the personal safety or even lead to the death of policyholders, increasing expenses for medical or life insurance claims and consequently the Group's operating costs.	Include climate-related factors in product design to offer insurance policies that better meet the needs of policyholders and climate change trends.
<b>Physical risk 2</b>	<ul style="list-style-type: none"> <li>Acute Physical Risk</li> <li>Chronic Physical Risk</li> </ul>	Extreme climate causes companies that receive investment/financing to halt their operations	<ul style="list-style-type: none"> <li>Own operations</li> <li>Investment and financing targets</li> </ul>	Long-term	Extreme weather events cause investment and financing targets to lose property or cease operations, which leads to a reduction in the Group's assets.	Strengthen the due diligence and Know Your Customer (KYC) process for investment and financing targets to ensure a comprehensive understanding of the resilience of business partners when responding to extreme weather events.
<b>Physical risk 3</b>	<ul style="list-style-type: none"> <li>Acute Physical Risk</li> <li>Chronic Physical Risk</li> </ul>	Losses from business locations and collateral damages due to flooding	<ul style="list-style-type: none"> <li>Own operations</li> <li>Investment and financing targets</li> </ul>	Long-term	Flood caused by extreme weather results in the operational interruption for subsidiaries or the decline in the Operational sites and proprietary real estate investments should take into account the flooding factor price of proprietary real estate, which in turn has an impact on the profit and loss of the Group by reducing revenue, or result in the Group's decrease in assets.	Operational sites and proprietary real estate investments should take into account the flooding factor caused by climate change.
<b>Physical risk 4</b>	Chronic Physical Risk	Losses from business locations and collateral damages due to a rise in sea level	<ul style="list-style-type: none"> <li>Own operations</li> <li>Investment and financing targets</li> </ul>	Long-term	Due to sea level rise, operation interrupted at subsidiaries' locations or price decreased in self-owned real estate, which can in turn impact the Group's income and loss.	Locations and self-owned real estate investments take rising sea levels caused by climate change into account.

◀ Table of the Eight Financial Impacts Incurred by Climate Opportunities and their Response Measures ▶

Opportunity	Opportunity type	Opportunity description	Value chain stages covered by climate opportunity assessment	Time horizon(s) covered by climate opportunity assessment	Financial Impact	Response Measure
1	<ul style="list-style-type: none"> <li>Resource Efficiency</li> <li>Energy Source</li> </ul>	Improving energy efficiency in business locations	Own operations	Medium-long-term	Reduce operating costs by adopting green buildings, renewable energy, energy-saving equipment, and introducing energy management systems to improve energy efficiency.	Implement the ISO 50001 energy management system, purchase renewable energy certificates, directly purchase renewable energy (green energy wheeling), actively obtain green building certificates for proprietary real estate, switch to energy-saving lightings and water-saving devices.
2	Products and Services	Green procurement and supplier management	Own operations	Medium-term	Support low-carbon companies with sustainable products to lower operational cost through green purchasing and supplier management.	Formulate "Supplier Integrity Management Guideline", "Supplier Sustainable Procurement Guidance", "Guidelines of Supplier Management", and include "Supplier's Terms and Conditions for Sustainable Procurement" and "Integrity Management Terms and Conditions" in the contract to regulate suppliers; "Green Procurement Terms and Conditions" is formulated in procurement regulations.
3	Products and Services	Develop and promote low-carbon products and services	Investee	Short-term	Develop and promote low-carbon products and services to satisfy investors' needs to increase revenue.	<p>Launch diverse innovative financial products relating to climate change and sustainability, such as: ETF, Sustainability ETN, sustainability-related warrants, etc. to continue to satisfy clients' sustainability investment demands. For existing sustainability products, promote those through diverse channels, and continue to expand scale of sustainability asset management, actively guide capital to ESG industries, and support companies targeting sustainable operation.</p> <p>Create carbon inventory and work towards carbon neutrality on the main financial products and services of each subsidiary, such as APP, credit card, and online service, provide clients with low-carbon products and services, and satisfy client demands to increase income.</p>
4	Products and Services	Customer engagement on sustainability and green consumption concepts	Product and Service	Short-term	Maximize the use of financial products and service platforms to engage with clients on the sustainability and green consumption concepts in order to increase operating income.	Encourage clients to take action towards energy conservation and carbon reduction or green investment through multiple channels such as through official website and APP. The Company will also actively engage with clients to take proactive ESG measures by meeting, written communication and oral discussions.
5	Markets	Sustainable investment and green loan	Own operations	Medium-term	Formulate group-level investment and financing policies to steer capital towards sustainable businesses and increase business revenue.	Investment and credit decisions will be made in accordance with the Sustainable Finance Guidelines and the Industry-Specific Environmental and Social Risk Management Rules. Each subsidiary's investment unit has formulated regulations and indicators based on the nature of its business and incorporate the concept of ESG into the investment process. For credit business, Yuanta Bank has formulated the "Guidelines for Managing Equator Principles Financing Cases <sup>51</sup> " to implement the Equator Principles.
6	Markets	Sustainable development bond market	Product and Service	Medium-term	Issue, underwrite, and invest in sustainable development bonds to vitalize the sustainability bond market so to increase revenue.	Continue to issue, underwrite, and invest in sustainable development bonds, including green bonds, sustainability bonds, and social bonds; activate the sustainability bond market; support companies to move towards sustainability transitions.
7	Markets	Cooperation with government agencies	Product and Service	Short-term	Grasp real-time sustainability trends and expand new markets and business opportunities in relevant business through participating in organizations of competent authorities and trade associations.	<p>As a member of "Coalition of Movers and Shakers on Sustainable Finance", we increase investment and financing capital for particular industries in compliance with national policies, including forward-looking economic actions and key strategic industries in the Executive Yuan's "Taiwan's Pathway to Net-Zero Emissions in 2050", to guide net zero emission transitions among industries.</p> <p>Subsidiaries take active participation in sustainability policy formulation in competent authorities and provide relevant suggestions to understand developmental trends of sustainability business in each industry and sector.</p>
8	Resilience	Natural disaster crisis management and early warning measures	Own operations	Short-medium-term	Formulate and ensure the effectiveness of adaptation measures, provide stable services for all businesses to increase client trust and reduce operating losses.	Uninterrupted power source, backup servers and off-site backup have all been set up, as well as regularly conducting disaster response drills to ensure that equipment and mechanisms can operate normally in case of crisis. ISO 22301 Business continuity management system is planned to be introduced to establish standard procedures to reduce the risk of interruptions and ensure recovery.

## 2.3 Quantitative Financial Analysis of Climate Change

The physical risks, transition risks and opportunities caused by climate change have an impact on the financial performance of the financial institutions' operations, balance sheets, income statements and cash flow statements, as well as various credit, market, liquidity, and operational risks. The Group follows TCFD's recommendation of quantifying climate risks targets, and makes annual improvement on our quantitative impact analysis on climate risk:

**2019** Analyze the impact of transition and physical risks on the investment and financing targets of the steel and iron industry.

▼

**2020** The scenario analysis was conducted on real estate collaterals and operational sites throughout Taiwan, based on the pathway that potential physical risk caused by climate change to real estate, and corresponding risk management measures were developed after the quantitative results.

▼

**2021** We referenced reports such as industry risk assessment, economic trends published by renowned institutions in Taiwan and the international community, then included environmental and social risks in each industry into scope of consideration for industry risk level in 2022 and developed climate risk quantitative model which included market risk factor into scope of assessment.

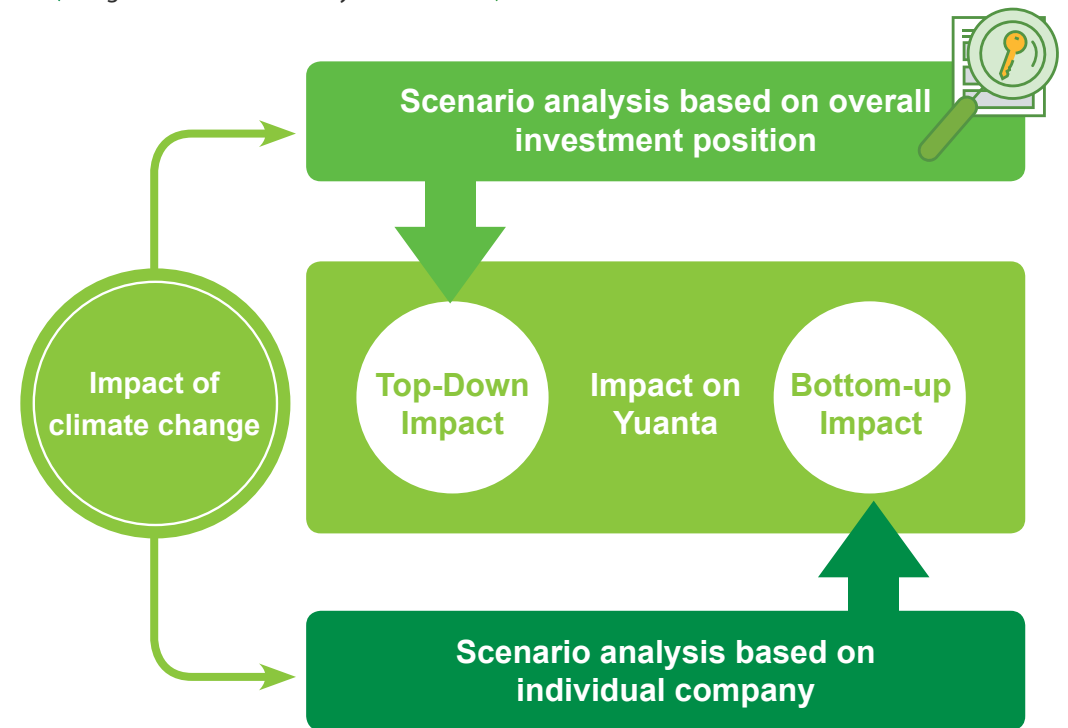
▼

**2022** We continued to improve our climate risk quantitative model and included risk factors—credit risk factor, market liquidity risk factor, and others—other than market risk factors influenced by climate risk into scope of assessment.

### Overview of Scenario Analysis

The Company expects to analyze climate-related financial impacts for the whole Group at different points in time and under different scenarios from multiple perspectives, such as conducting scenario analysis from the level of overall investment position (Top Down) and from the level of individual company in high climate risk industries (Bottom Up).

◀ Diagram of Scenario Analysis Overview ▶



Note: 1. Top Down Analysis: Calculate the additional loss of investment position due to the impact of climate change at the industry level by incorporating information on climate risks derived from economic model.  
 2. Bottom Up Analysis: Analyze the impact of individual investment and financing targets on the Group by understanding industry climate risks and risk exposures with industry-specific climate risk assessment tools.

## Scenario Analysis based on Overall Investment Positions (Top Down)

### Importance of assessment

The Company looks at the macro-economic impacts caused by climate change to establish methods for quantifying financial risk impacted by climate change as our reference for opportunity management, and hopes to identify innovative business model in the process.

### Targets of assessment

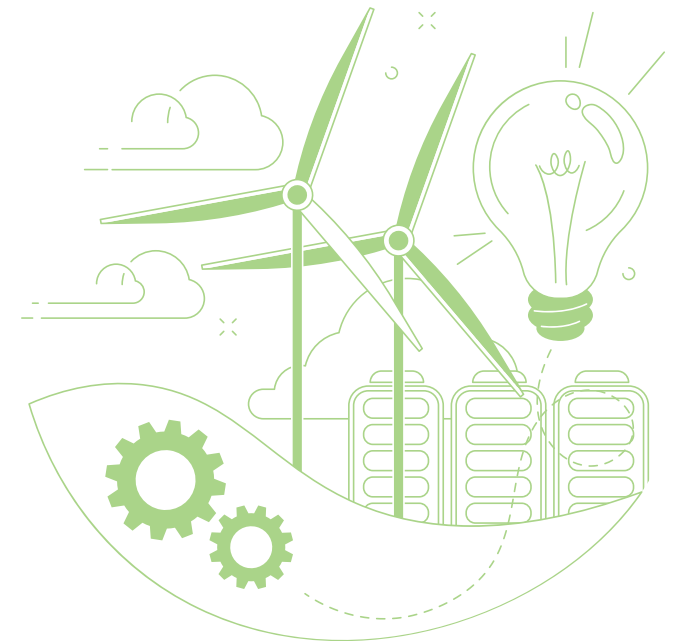
Mid- and long-term investment positions across the whole Group's subsidiaries, which are mainly in Taiwan, the US, and Australia.

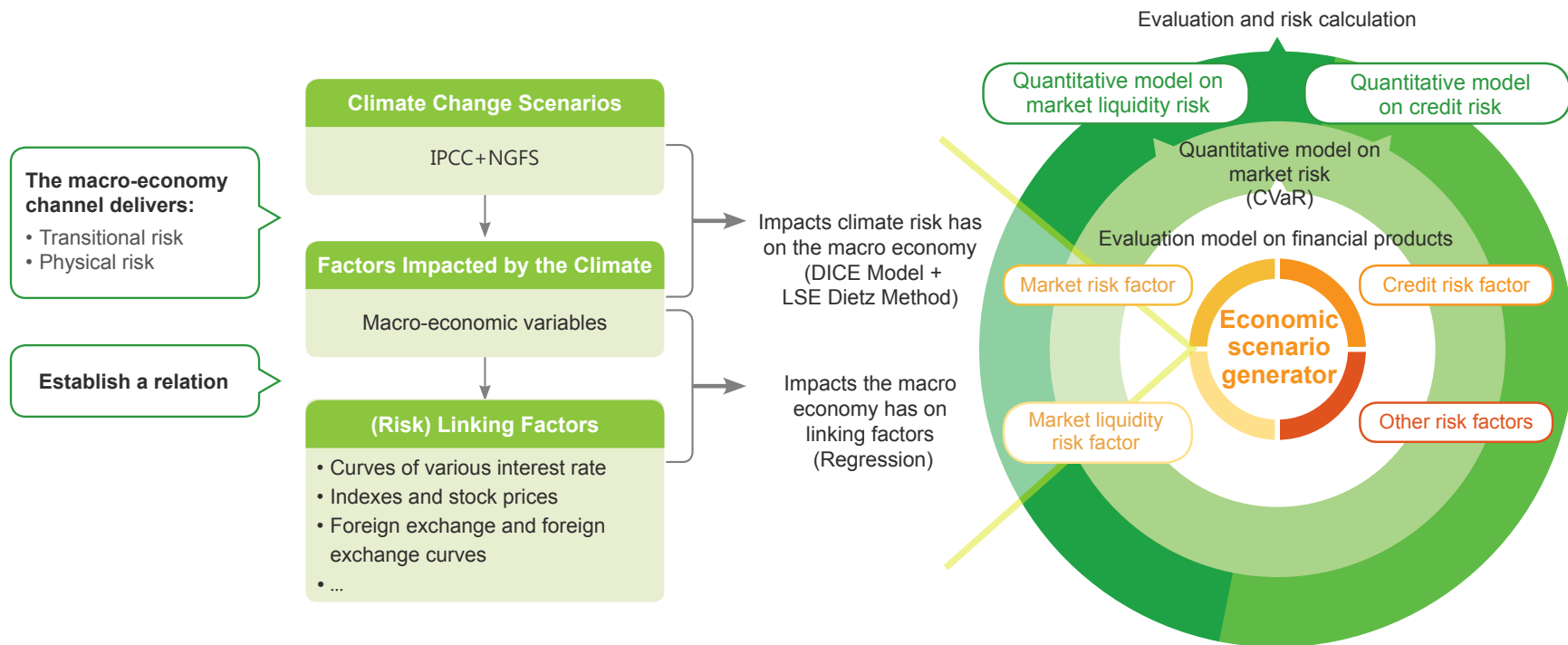
### ◀ Overall Distribution of Investment Positions by Country ▶



### Method of assessment

To measure physical and transition risk incurred by climate change, scenario analysis of overall investment position selects climate scenarios used in IPCC and NGFS to depict whether long-term rise of temperature and policies make transitions in response to climate change. Also, we use linking factors of macro-economy to set up linking models of climate and economy. Finally, we integrate economy model with each risk factor model, and utilize the existing established risk management model to conduct impact analysis of climate impacts.





**Climate scenarios for assessment**

For IPCC Sixth Assessment Report on Climate Change (The Sixth Assessment Report, AR6)<sup>②</sup>, two physical risk scenarios (SSP1-RCP2.6, SSP5-RCP8.5) and three transition risk scenarios (NGFS Net Zero 2050, NGFS Divergent Net Zero, NGFS Current Policies), select the following three scenarios for analysis.

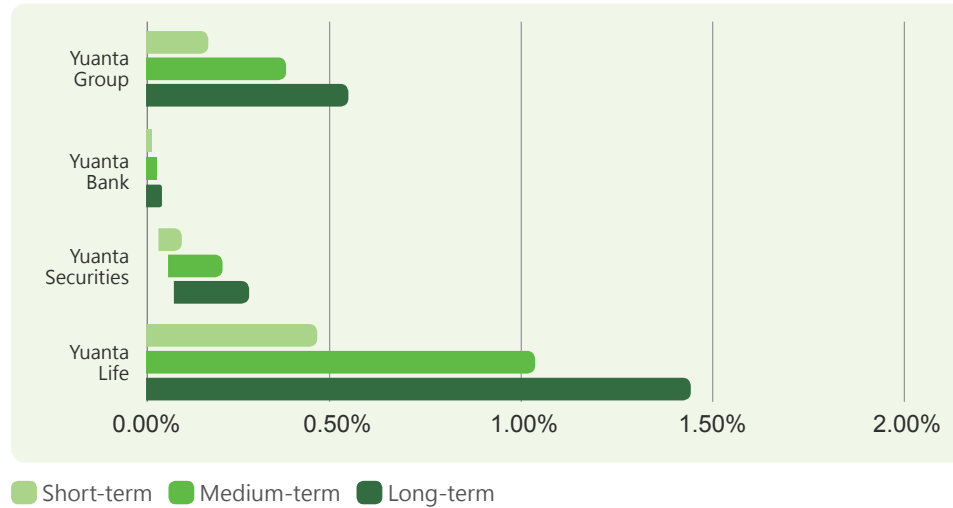
1. SSP1-RCP2.6 NGFS Net Zero 2050: Assuming that the warming scenario reaches 1.7°C in 2050, the government's carbon reduction policy is rapid and smooth, and the carbon price rises moderately. The overall economic variable GDP is affected by the temperature rise and the carbon price using the DICE model.
2. SSP1-RCP2.6 NGFS Divergent Net Zero: Assuming that the temperature rise scenario reaches 1.7°C in 2050, the government's carbon reduction policy is rapid but disorderly, and the carbon price rises at a steep rate. The overall economic variable GDP is affected by temperature rise and carbon price using the DICE model.
3. SSP5-RCP8.5 NGFS Current Policies: Assuming that the temperature rise scenario reaches 2.4°C in 2050, the carbon price remains the same, and the overall economic variable GDP is affected by the temperature rise and carbon price using the DICE model.

## Assessment results

### (1) Climate change impacts on financial trading value

Integrate economic damages incurred by the climate scenarios into market risk factor to evaluate impacts on financial trading value.

#### ◀ Level of Climate Impact on Investment Positions of the Group and Its Subsidiaries ▶

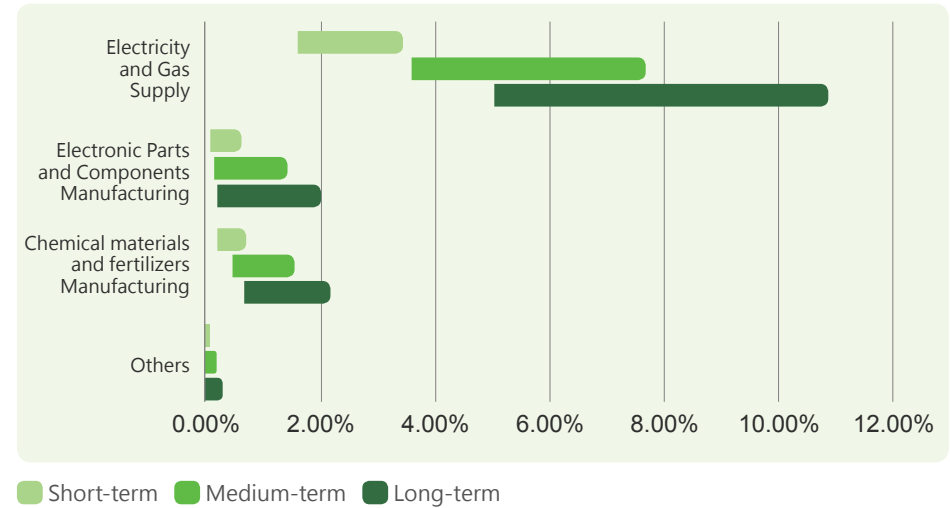


Loss of market value /Market value < The Group and its subsidiaries >

Note: 1. The ratio on horizontal axis is the decrease in market value relative to the variation of reference day market value.  
 2. Short-term measures 1-year-loss, medium-term measures 5-year-loss, and long-term measures 10-year-loss.  
 3. The bars in the bar chart represents the possible range of impact under different climate scenarios in the same loss period.

The long-term loss of market value of the whole Group's investment position incurred by climate impact has a 0.5% decrease compared with reference day market value. As the whole Group invests in a multitude of products, climate-induced impacts are not significant after a diversification of risks. However, as positions of Yuanta Life are more focused on specific financial products and less diversified, they are more susceptible to impacts of climate change in the long run.

#### ◀ Level of Climate Impact on Investment Positions across Industries ▶



Loss of market value /Market value < Industry Dimension >

Note: 1. The ratio on horizontal axis is the decrease in market value relative to the variation of reference day market value.  
 2. Short-term measures 1-year-loss, medium-term measures 5-year-loss, and long-term measures 10-year-loss.  
 3. The bars in the bar chart represents the possible range of impact under different climate scenarios in the same loss period.

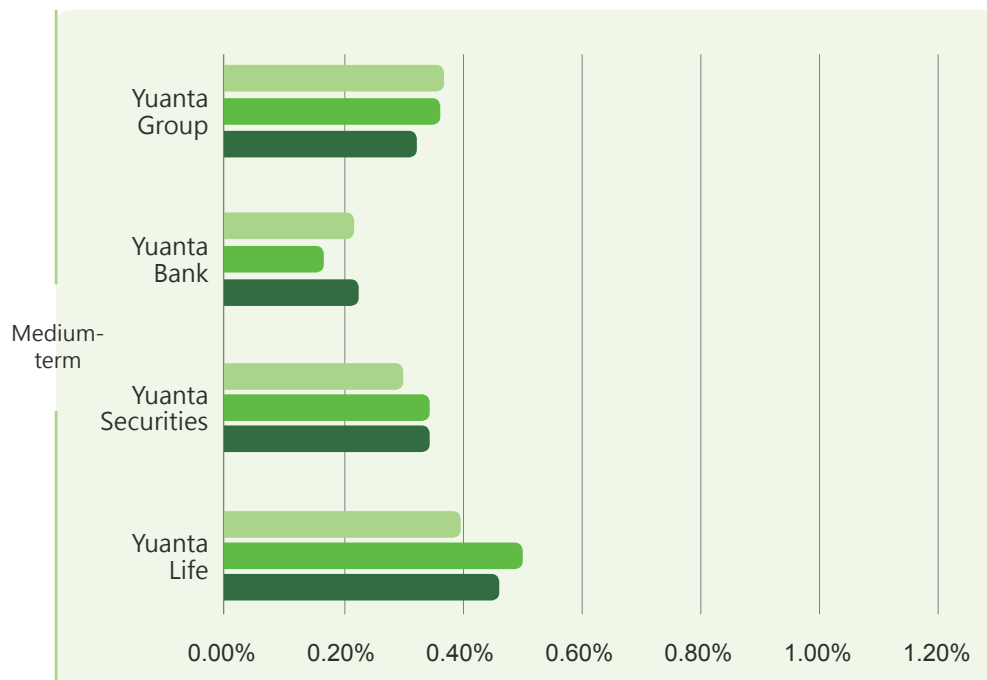
Observing from different industry dimensions: Among high-GHG-emitting industries, electricity and gas supply has the most significant impact and long-term loss of market value of such position incurred by climate impact has an 11% decrease compared with reference day market value. Investment positions of the Group experienced relatively smaller impact as the positions are comprised of non-high-GHG-emitting industries.



## (2) Climate change impacts on expected credit loss (ECL) in financial trading

Financial damage of physical risk and capital expenditure of transition risk induced by climate change can both result in profit decrease for some issuers of financial trading, increasing its credit risk. Economic damage in climate scenarios is integrated into credit risk factor to evaluate impacts of expected credit loss in financial trading.

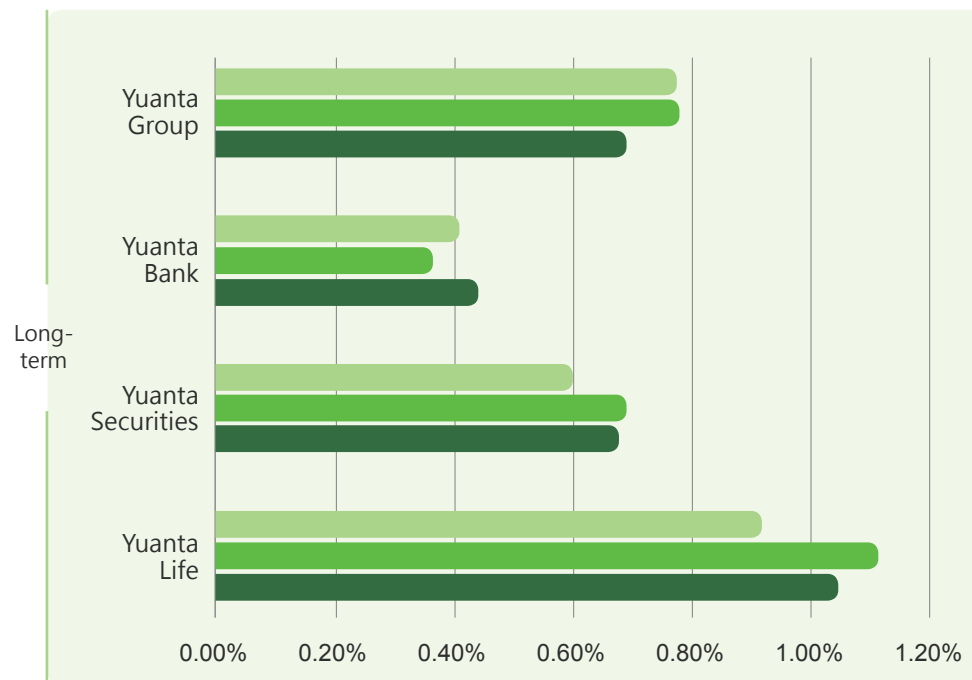
### ◀ Level of Climate Impact on Investment Positions of the Group and Its Subsidiaries ▶



■ RCP 8.5—Current Policies  
■ RCP 2.6—Divergent Net Zero  
■ RCP 2.6—Net Zero 2050

Variation of ECL/Market Value < The Group and its subsidiaries >

Note: 1. The ratio on horizontal axis is the increase of ECL relative to the variation of reference day market value.  
 2. Medium-term measures 5-year-loss, and long-term measures 10-year-loss.



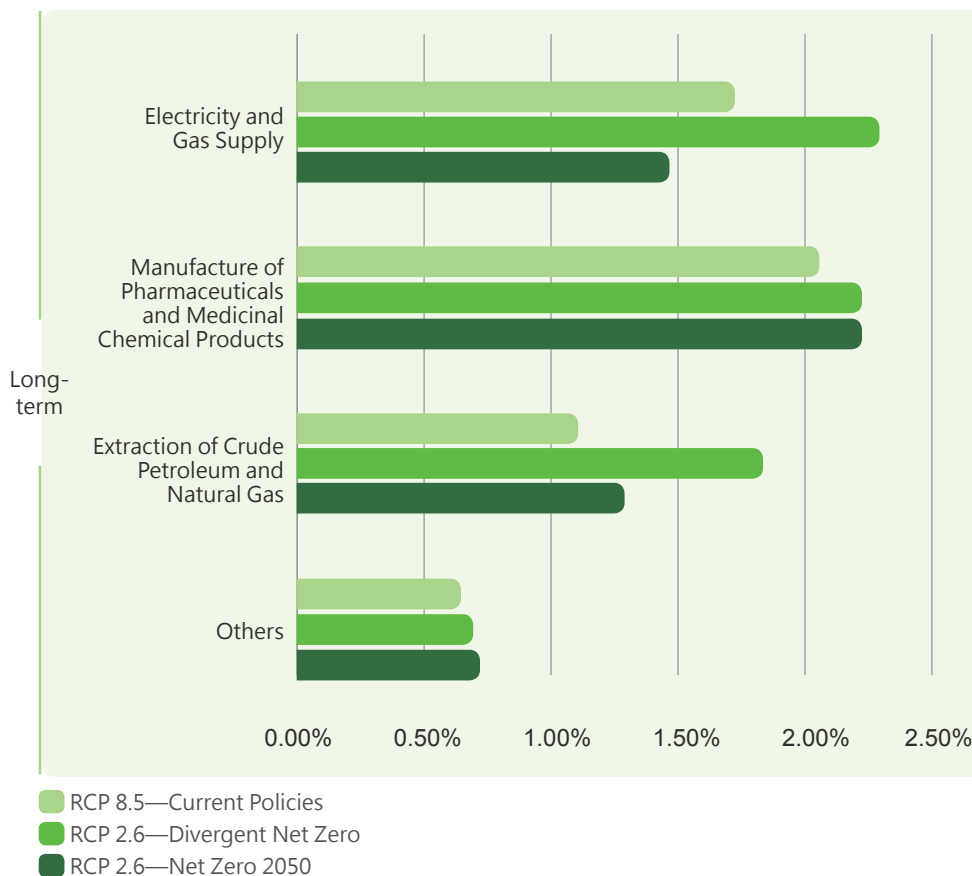
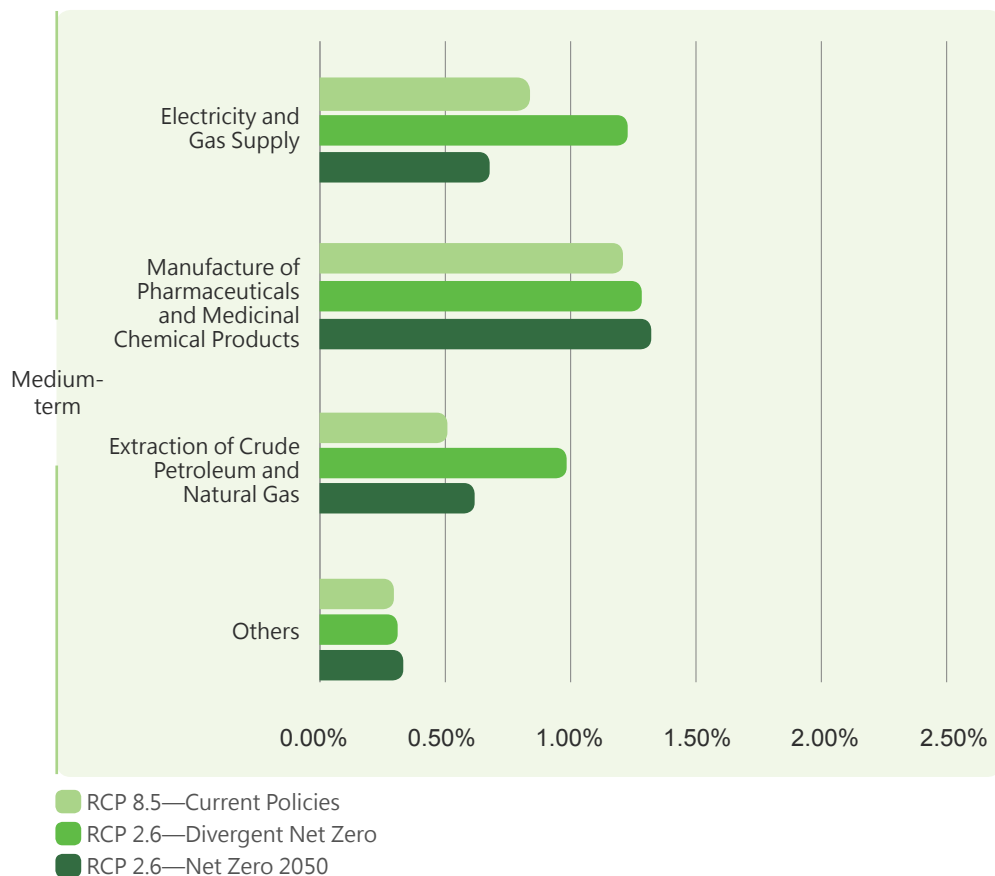
■ RCP 8.5—Current Policies  
■ RCP 2.6—Divergent Net Zero  
■ RCP 2.6—Net Zero 2050

Variation of ECL/Market Value < The Group and its subsidiaries >

Note: 1. The ratio on horizontal axis is the increase of ECL relative to the variation of reference day market value.  
 2. Medium-term measures 5-year-loss, and long-term measures 10-year-loss.

The long-term loss of ECL of the whole Group's investment position incurred by climate impact has a 0.8% decrease compared with reference day market value. As the whole Group's invested positions are mostly investment grade, ECL variation caused by climate-induced impacts are not significant. However, as positions of Yuanta Life are partially comprised of speculative grade, they have a relatively greater ECL increase.

◀ Level of Climate Impact on Investment Positions across Industries ▶



Variation of ECL/Market Value < Industry Dimension >

Note: 1. The ratio on horizontal axis is the increase of ECL relative to the variation of reference day market value.  
2. Medium-term measures 5-year-loss, and long-term measures 10-year-loss.

Variation of ECL/Market Value < Industry Dimension >

Note: 1. The ratio on horizontal axis is the increase of ECL relative to the variation of reference day market value.  
2. Medium-term measures 5-year-loss, and long-term measures 10-year-loss.

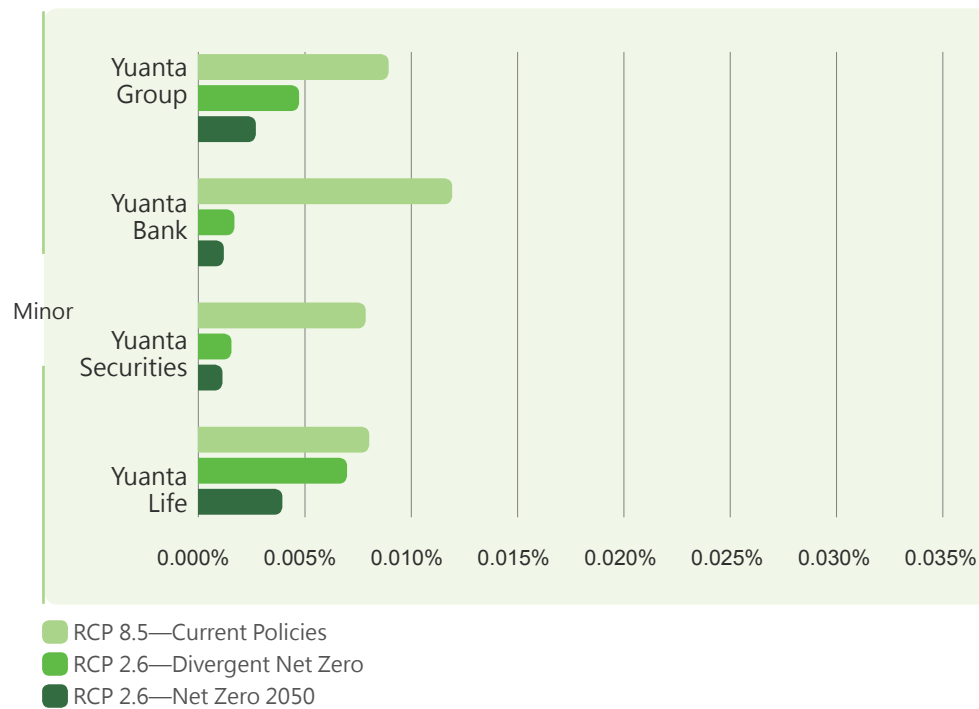
Observing from different industry dimensions: High-GHG-emitting industries has a greater ECL increase caused by climate impact, and the long-term ECL has an 2.3% increase compared with reference day market value.



### (3) Climate change impacts on haircut in financial trading

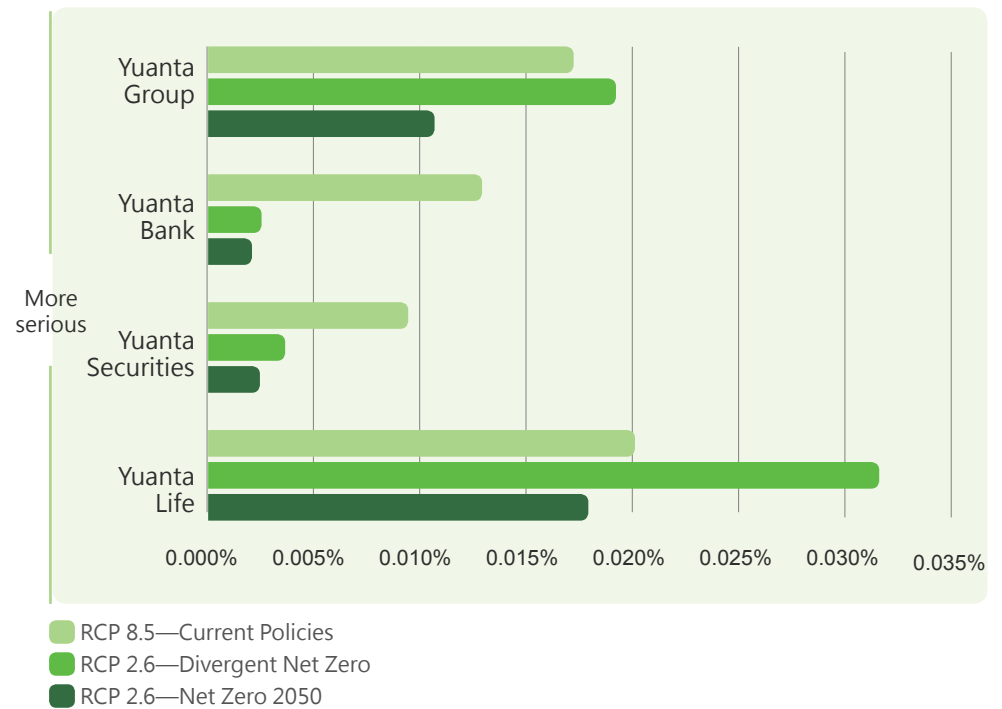
Climate change can have a more extensive impact on the entire financial system. Climate impacts can result in decreased trading volume on the market, leading to more matching time for financial trading. Economic damage in climate scenarios is integrated into liquidity risk factor to evaluate haircut in financial trading caused by the climate.

#### ◀ Level of Climate Impact on Investment Positions of the Group and Its Subsidiaries ▶



Liquidity Discount < The Group and Its Subsidiaries >

Note: 1. The ratio on horizontal axis is the haircut of climate market value in financial trading (Only impacts induced by climate is taken into account).  
 2. Minor refers to a 1-day closing of position, whereas more serious refers to a 1-week closing of position.

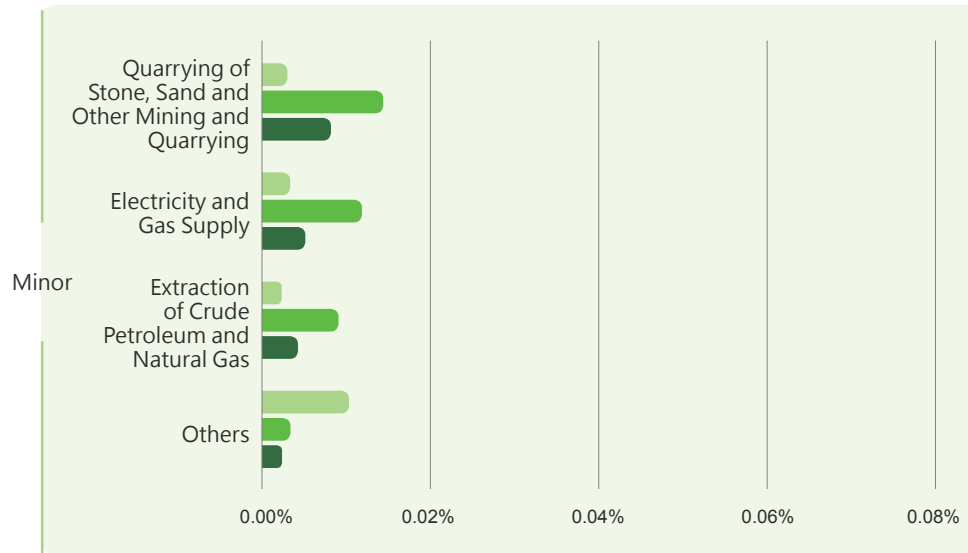


Liquidity Discount < The Group and Its Subsidiaries >

Note: 1. The ratio on horizontal axis is the haircut of climate market value in financial trading (Only impacts induced by climate is taken into account).  
 2. Minor refers to a 1-day closing of position, whereas more serious refers to a 1-week closing of position.

If the investment positions of the whole Group need to be cleared when they are affected by the climate, the value loss of the investment positions of the whole Group will be about 0.02% due to the clearing time of up to one week. However, as Yuanta Life holds more positions in high-GHG-emitting industry bonds, haircuts on climate market value is higher as potential transitional impacts of Divergent Net Zero has a more significant impact on credit spread. Generally speaking, the haircut of climate market value caused by climate change is insignificant.

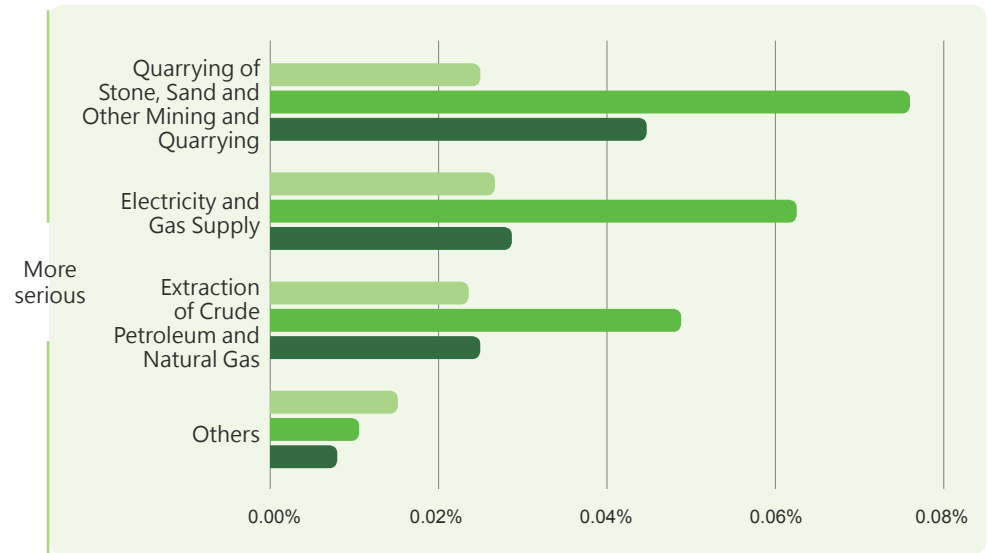
◀ Level of Climate Impact on Investment Positions across Industries ▶



- RCP 8.5—Current Policies
- RCP 2.6—Divergent Net Zero
- RCP 2.6—Net Zero 2050

Liquidity Discount < Industry Dimensions >

- Note: 1. The ratio on horizontal axis is the haircut of climate market value in financial trading (Only impacts induced by climate is taken into account).  
 2. Minor refers to a 1-day closing of position, whereas more serious refers to a 1-week closing of position.



- RCP 8.5—Current Policies
- RCP 2.6—Divergent Net Zero
- RCP 2.6—Net Zero 2050

Liquidity Discount < Industry Dimensions >

- Note: 1. The ratio on horizontal axis is the haircut of climate market value in financial trading (Only impacts induced by climate is taken into account).  
 2. Minor refers to a 1-day closing of position, whereas more serious refers to a 1-week closing of position.

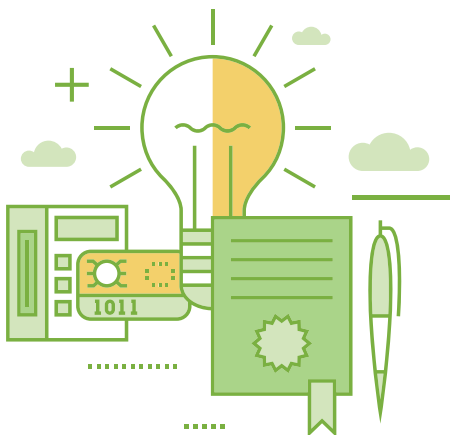
Observing from different industry dimensions: The high-GHG-emitting industry positions we hold are mostly bonds, and the potential transitional impact of Divergent Net Zero has a more obvious impact on credit spread. The relative market value decrease of the Group's investment position that are impacted by the climate is 0.075% compared with that of those impacted by the climate but are not to be closed. Generally speaking, the haircut of climate market value caused by climate change is insignificant.

**Responding strategy**

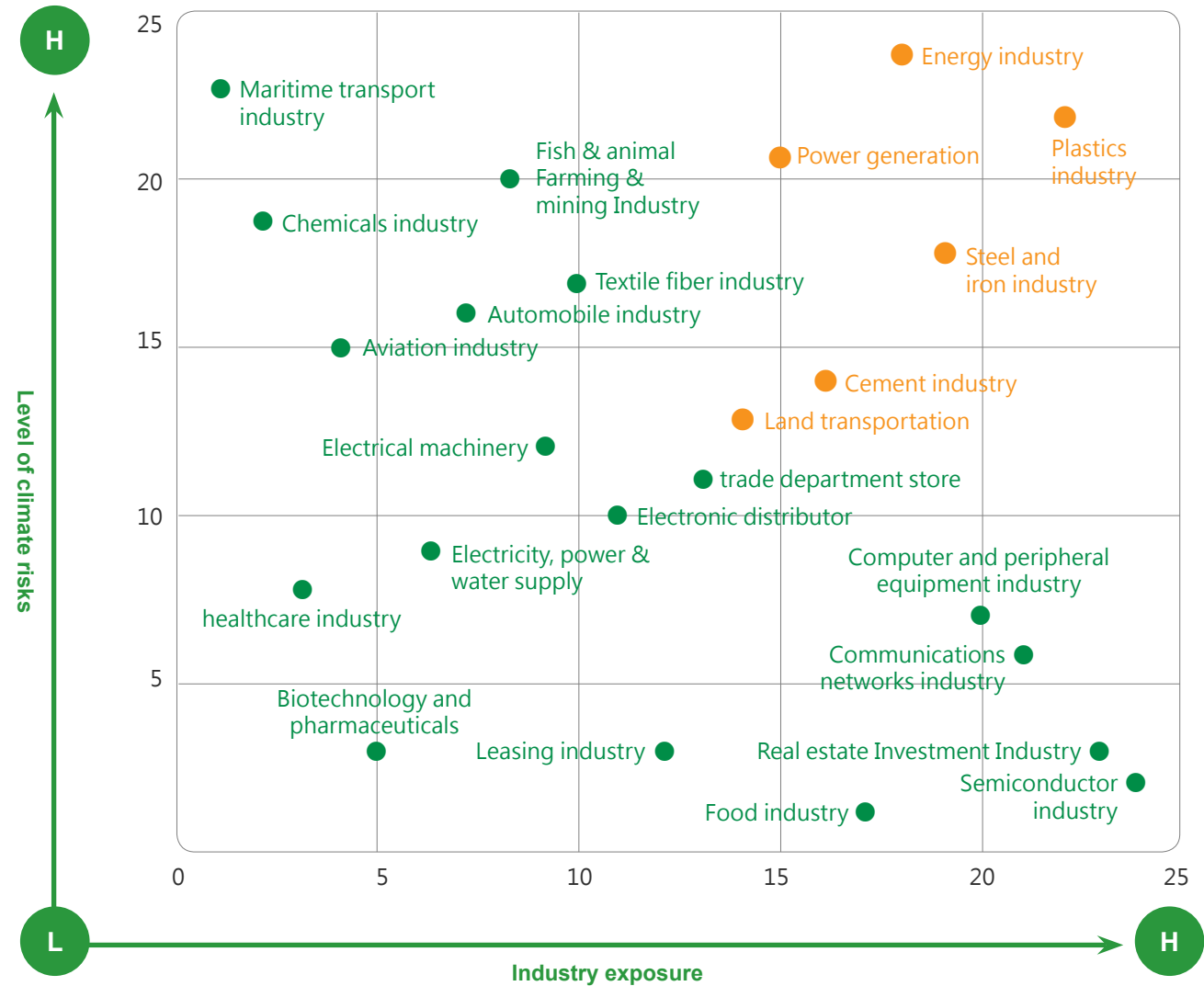
The whole Group continues to mitigate the impact market risk factor has on the market value of financial products through diversifying our portfolio, and reduce additional credit and liquidity loss on the value of financial products by optimizing our portfolio through investing in products with high rating and liquidity and low volatility. In addition, based on the aforementioned results of scenario analysis, we review the Group's risk profile and asset risk, and continue to set and update monitoring indicators for each CVaR using the estimated income of our portfolio to prevent losses incurred by extreme climate risk.

### Analysis of Industries with High Climate Risks

Before conducting quantitative assessment on scaled scenario analysis on individual companies, the Group first give a comprehensive evaluation on the overall financial trading market by referencing results from industry analysis reports by the Group itself and institutions in Taiwan and overseas to understand climate risk level of each industry and the Group's scale of exposure, and industries with high climate risk and large exposed amount are then selected for analysis. The analysis results indicate that high-climate-risk industries include plastics industry, steel and iron industry, energy industry, power generation, cement industry, and land transportation.



### Industry-specific Risk Matrix



Note: 1. The climate risk level mainly refers to the risk score of Moody's Investor Service Industry Analysis Report.<sup>③</sup>  
 2. The industry risk exposure includes all investment and financing targets of the Group in the analysis.

## Scenario Analysis at the Individual Company Level (Bottom Up)

In addition to the scenario analysis at the overall investment level, the Group has improved its scenario analysis model at the individual company level since 2021 to analyze climate-related financial impacts for different time horizons and with different scenarios. Based on the climate risks and opportunities identified in Chapter 2.2, two transition risks, one physical risk and one opportunity which were more prominent in the impact assessment were selected for quantitative analysis for the financial impact at the level of individual company.

### ◀ Overview of Analysis Methods for Individual Company Scales ▶

Selected Climate Risks and Opportunities		Scope of Analysis		Method of Analysis		
Type	Risk/Opportunity Factor	Analysis of the Industry	Analysis of the subject	Climate Scenario	Duration of assessment	Method of assessment
Transition Risk	Cost for decarbonization policies and legal compliance	Plastics industry, steel and iron industry, energy industry, power generation, cement industry, and land transportation	Corporate banking credit position Equity investment position	NGFS Net Zero 2050 (1.5°C) 、 Well Below 2°C	2025 、 2030 、 2035 、 2040 、 2045 、 2050	Expected credit loss model
		The Group	All operational sites in Taiwan			The Group's SBT goal and the national goal of 2050 Net-Zero
Physical Risk	Flood causes damage to operational sites and collaterals	All	Real estate collateral All operational sites in Taiwan	RCP 2.6 、 RCP 8.5	2036~2065	Disaster risk model and Expected Loss model
Opportunity	Develop and promote low carbon products and services	Steel and iron	Heavy electricity users	The Ministry of Economic Affairs regulation	2025	Market pricing model

## 1. Scenario analysis of transition risks: Quantitative assessment of the impact of carbon fees on the corporate banking's credit positions

### Importance of assessment

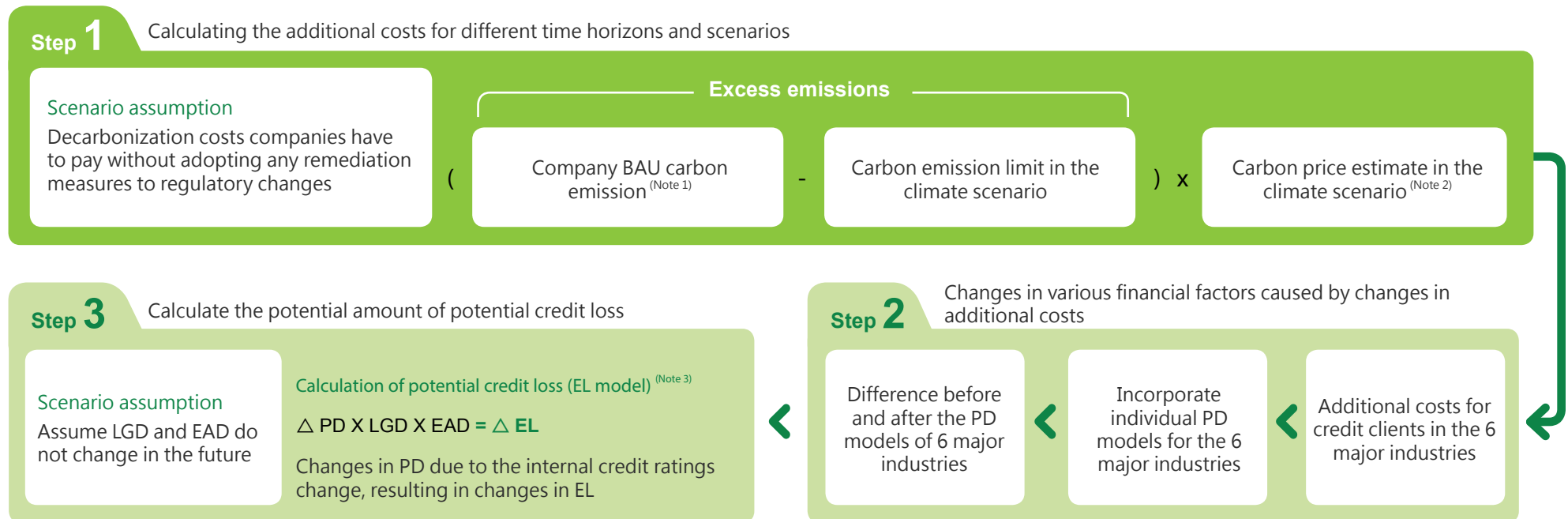
The financing targets are affected by carbon fee in that they have to bear additional costs for meeting the regulatory requirements. The additional costs have an impact on value of its net equity, resulting in an increase in credit risk (increase in probability of default), which in turn increases the potential credit loss of the Group. Therefore, it is important for the Group to effectively estimate the changes in the expected credit losses of its financing targets.

### Targets of assessment

The six key industries with high climate risks within the Group's corporate banking clients at home and abroad.

### Method of assessment

Expected credit loss model



Note: 1. The carbon emission growth rate of the selected industry for the company's BAU scenario forecast is obtained by taking referencing the International Energy Agency's (IEA) data.  
 2. The carbon price forecast for each year and each scenario is obtained by referencing the Central Banks and Supervisors Network for Greening the Financial System's (NGFS) data.  
 3. PD is Probability of Default, LGD is Loss Given Default, EAD is Exposure at Default and EL is Expected Loss.

### Assessment results

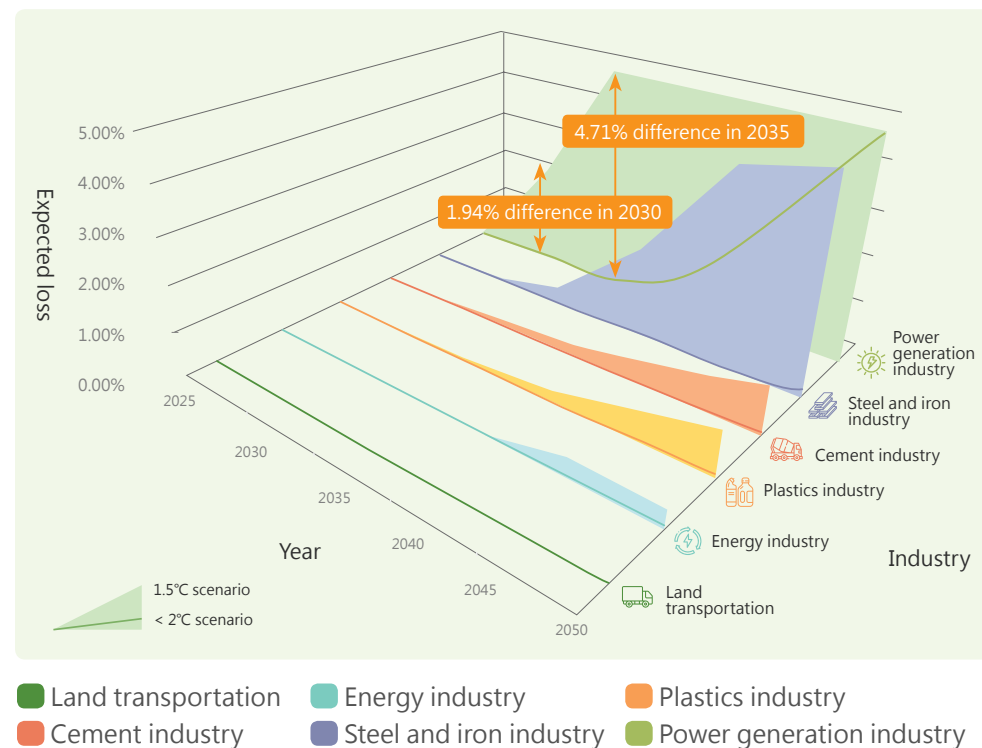
The expected loss model is incorporated into the asset position of individual corporate banking credit customers companies in the six major industries to calculate the expected amount of loss due to carbon fees under the two scenarios (1.5°C / <2°C). The result is presented in the following figure based on the impact ratio (the ratio of the expected amount of loss in the industry in the year divided by the amount of exposure). The figure shows that the power generation and steel and iron industries in the corporate banking business have increasing level of impact each year. Among them, changes in the level of impact in the 1.5°C scenario is greater than that of the <2°C scenario. Between 2030-2035, the power generation industry in the 1.5°C scenario shows exponential growth in the impact at the industry level. The main reason is that the changes in the financial factors resulting from applying carbon fee pressure for companies with high carbon emissions exceed the default level tolerated by the credit risk PD model, resulting in significant growth in the overall curve. However, under the scenario of <2°C, it will show exponential growth in 2040-2045.

Two observations can be observed from the difference between the impact curves for different industries under the two scenarios:

The first aspect is to observe a specific industry in two points in time. Take the power generation industry as an example. In 2030, the difference in the impact level curve for individual industries is 1.94%, and in 2035 there is a significant increase to 4.71%, putting significantly more loading to credit risk PD model.

The second is the overall observation of the six major industries from 2025 to 2050. It can be found that the difference between the impact level curves of individual industries in the two scenarios continues to expand over time, representing the capacity to mitigate and adopt to rising temperature. They may have a significant impact on credit clients, as well as significant impact on loss due to default risk for the Group.

### Industry Impact Ratio of Credit Accounts in Six Major Industries under Different Scenarios and Different Time Horizons



Note: The level of impact on the industry refers to the percentage of the expected loss for the credit position relative to the amount of risk exposure on the reference date (the end of December 2022) under different climate scenarios.





### Responding strategy

Based on the evaluation results, there is no significant different in the impact level across industries by 2025. The Group develops its business model based on its long-term (no less than 3 years) strategic arrangement, and below are our response management measures:

- (1) To ensure the Group's availability and flexibility of existing financial resource, the Group first targets managing clients which have a higher impact on the Group, continues to develop relevant measures. Establishing the "Sustainable Finance Guidelines<sup>[2]</sup>" and "Industry-Specific Environmental and Social Risk Management Rules<sup>[4]</sup>" to review the clients' capacity to respond to transition risks during due diligence, suggest improvement actions or plans for potential risks, and further reduce or refuse to finance companies with high climate risks.
- (2) Yuanta Bank formulated the "Guidelines for Managing Equator Principles Financing Cases" based on the Equator Principles<sup>®</sup> to rate project financing loans and manage accordingly and require clients to improve their environmental and social performance. In addition, by engaging with clients, the Group expects to prevent some of the negative financial impact caused by climate change. In the meantime, it employs its power as a financial intermediary to encourage financial service recipients to implement carbon reduction and climate risk management actions, to enhance its clients' resilience to climate risks. The Group firmly believes that to mitigate global warming, initiating reforms in low-carbon technology in industries is a must. The Group will continue to drive low-carbon transition in high-climate-risk industries through our corporate finance client management mechanism.



## 2. Scenario analysis of transition risks: Quantitative assessment of the impact of carbon fees on equity investment positions

### Importance of assessment

The introduction of carbon fees imposes additional costs on companies in order to comply with regulatory requirements. The additional costs have an impact on companies' net equity and consequently a likely negative impact on the stock price. Therefore, it is important to be able to effectively estimate the expected loss of the equity investment position held by the whole Group.

### Targets of assessment

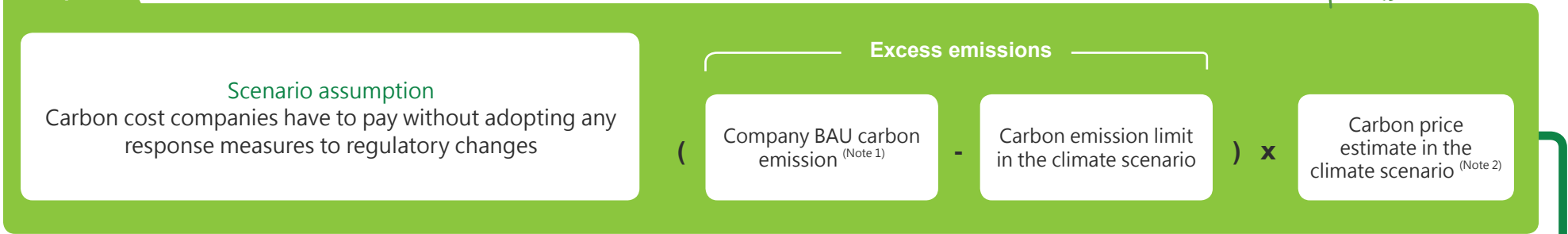
The whole Groups' holding of public companies with high climate risks at home and abroad.

### Method of assessment

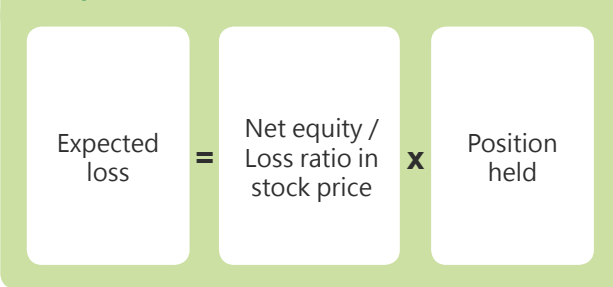
Equity valuation model



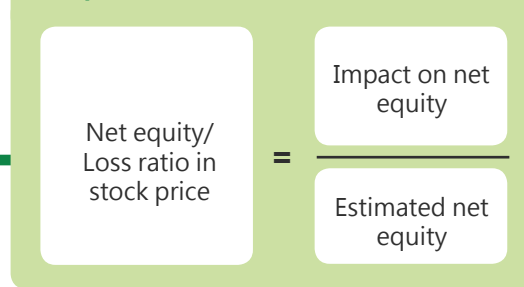
### Step 1 Calculating the additional costs for different time horizons and scenarios



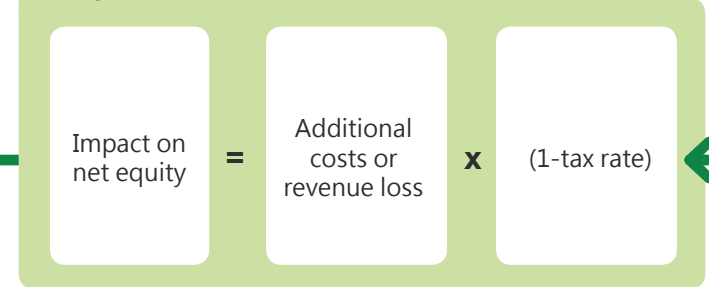
### Step 4 Calculate the estimated amount of loss for the investment position



### Step 3 Calculate net equity/ loss ratio in stock price



### Step 2 Changes in net equity due to changes in additional costs



Note: 1. The carbon emission growth rate for the company's BAU scenario forecast is based on the specific industry it resides with reference made to the International Energy Agency's (IEA) data.  
2. The carbon price forecast for each year and each scenario is obtained by reference to the Central Banks and Supervisors Network for Greening the Financial System's (NGFS).

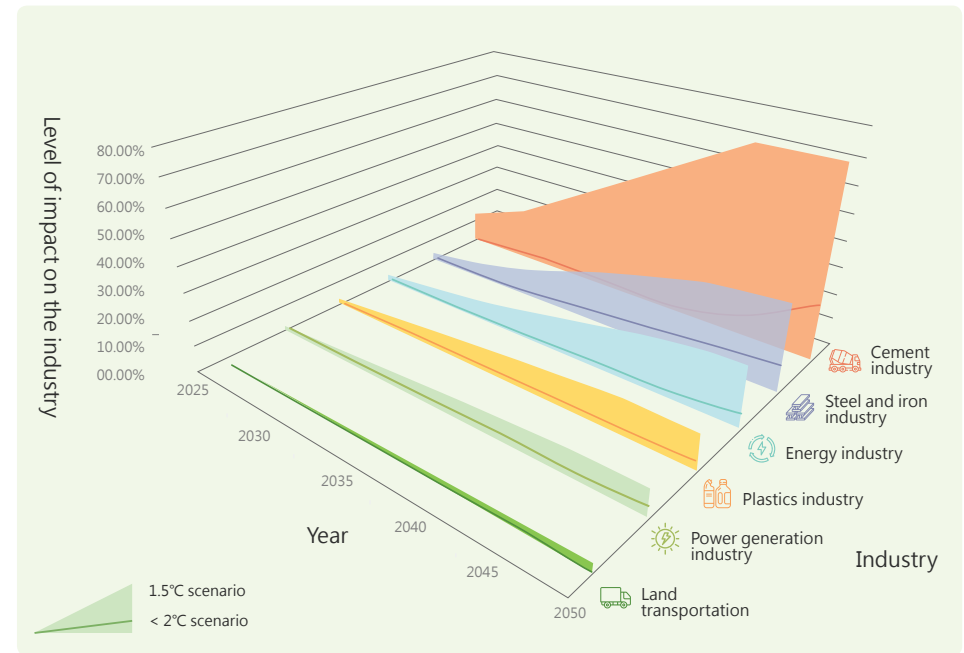
### Assessment results

The equity valuation model is respectively applied to the asset portfolio of six major industries in the equity investment position to calculate the expected amount of loss caused by carbon fees under the two scenarios (1.5°C / <2°C). The following figure is presented based on the impact ratio (the ratio of the expected amount of loss divided by the asset size of the industry in the year). Among the equity investment portfolios, cement, steel and iron and energy industries have significant changes in the impact level as time proceeds. Moreover, changes in the impact level for the 1.5°C scenario are greater than that for the <2°C scenario.

After analyzing all investment objects in the cement, steel and iron and energy industries, it is estimated that the future growth rate of carbon emissions in the cement industry will decrease with the improvement of production efficiency and technological progress. However, its carbon emission intensity is relatively higher than that of other industries, and its asset scale is relatively small. Concentrate on some investment objects with a slightly higher net worth loss rate, so the expected loss will be particularly prominent regardless of the scenario of 1.5°C or <2°C; the steel and iron and energy industries are expected to have a slightly higher growth rate of carbon emissions in the future than other industries. Therefore, the impact on the industry is relatively high.

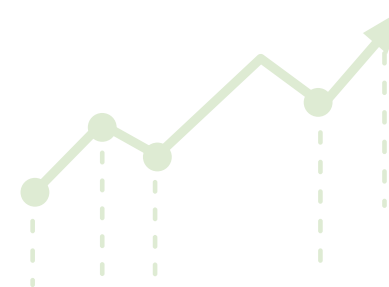


### Industry Impact Ratio of Investment Targets in Six Major Industries under Different Scenarios and Different Time Horizons



- Land transportation
- Power generation industry
- Energy industry
- Steel and iron industry
- Plastics industry
- Cement industry

Note: The level of impact on the industry refers to the percentage of the expected loss in relation to the amount of risk exposure on the reference date (the end of December 2022) under different climate scenarios.



### Responding strategy

Based on the evaluation results, the Group develops its business model based on its long-term (no less than 3 years) strategic arrangement, and below are our response management measures:

- (1) Based on the analysis results, in order to ensure the availability and flexibility of financial resources for addressing climate change risks, the Group has set CVaR monitoring indicators and thresholds. The Risk Management Department monitors CVaR on a monthly basis, as well as reporting key climate risk-related information to the risk management committee and board of directors.
- (2) When the climate change risk of an investment target reaches the CVaR monitoring indicators and thresholds, the Company's Risk Management Department will assess the level of exposure such risk has, and report a detail statement of the reason and solutions to the Board for approval. In compliance with the Company's "Industry-Specific Environmental and Social Risk Management Rules", solutions include but are not limited to requesting investment targets to provide improvement actions or provide supporting documents on low-carbon transition projects. Should investment targets could not provide such information, the Group will consider decreasing its position or not investing in the target.
- (3) The Group sets metrics and targets for low-carbon operation and transformation, and regularly reviews and tracks the implementation every year. As an institutional investor and provider of funds, it expects to use the power of the financial market to promote low-carbon transformation for clients, and then contribute to the country's net zero Goals and contribution to global climate change mitigation. Sustainable finance promotion strategies will be further illustrated in Chapter 3.

### 3. Scenario analysis of transition risks: Quantitative Evaluation on the Promotion of Carbon Reduction in the Group's Operations

#### Importance of assessment

The company set SBT<sup>®</sup> and passed the SBTi compliance validation in July 2022. In addition, the Taiwanese government has published "Taiwan's Pathway to Net-Zero Emissions in 2050" as a guidance to transition into net-zero emissions for industries. To reach our carbon reduction goal and to comply to trends and expectations of the national policy, the Group will reduce carbon emissions in an active manner through using renewable energy (green energy), however, as domestic renewable energy market is still in the development phase, power generation cost for renewable energy is higher than that of non-renewable energy (gray energy), using renewable energy will result in additional cost when compared with using non-renewable energy. Under the premise of moving towards low-carbon targets for all locations of the Group, it is vital to evaluate the impact of expected costs incurred by purchasing renewable energy has on the Group's finances.

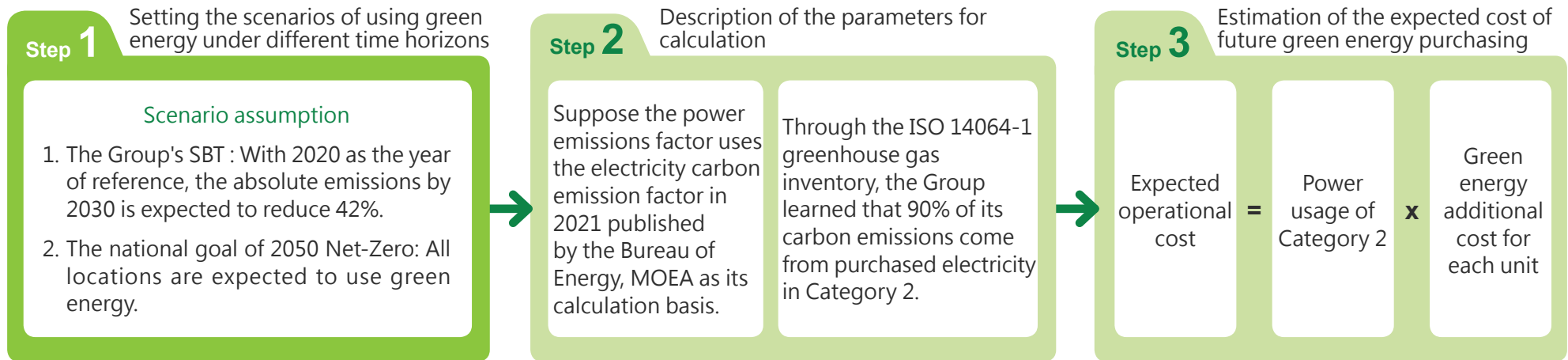
#### Targets of assessment

All operational sites of the Group in Taiwan

#### Method of assessment

Expected green energy cost scenario analysis





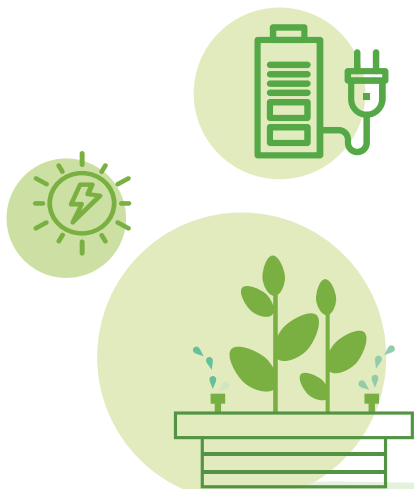
**Assessment results**

The Group utilizes using green energy as our primary carbon reduction measures, and uses two scenarios—The Group's SBT and the national goal of 2050 Net-Zero—to estimate their respective expected costs of green energy purchasing yearly. By 2030, the cost will reach NT\$49.3 million, and by 2050 it will reach NT\$105 million.

**Responding strategy**

Based on the assessment results, the Group's short-term (within one year) and medium-term (1-3 years) arrangement, and below are our climate change response management measures:

- (1) The Group's greenhouse gas emissions mainly come from Category 2. In order to effectively reduce carbon emissions in the short term, we will take active measures to improve energy efficiency, including introduce the ISO 50001—Energy management system, replace high energy-consuming equipment, and use intelligent energy-saving systems. Reduce the consumption of purchased electricity and implement low-carbon operations to reduce the impact on the environment.
- (2) Domestic policies are in the process of energy transformation, and the proportion of renewable energy power generation will be increased in the future. The Group actively plans the proportion of renewable energy usage in its operating bases, and continues to pay attention to and participate in the renewable energy market, grasping the price of green electricity and related transactions, so as to increase compliance with regulatory requirements toughness.



#### 4. Physical Risk Scenario Analysis: Quantitative Impact Assessment of Flooding on Real Estate Collaterals and on the Group's Taiwan operational sites

##### Importance of assessment

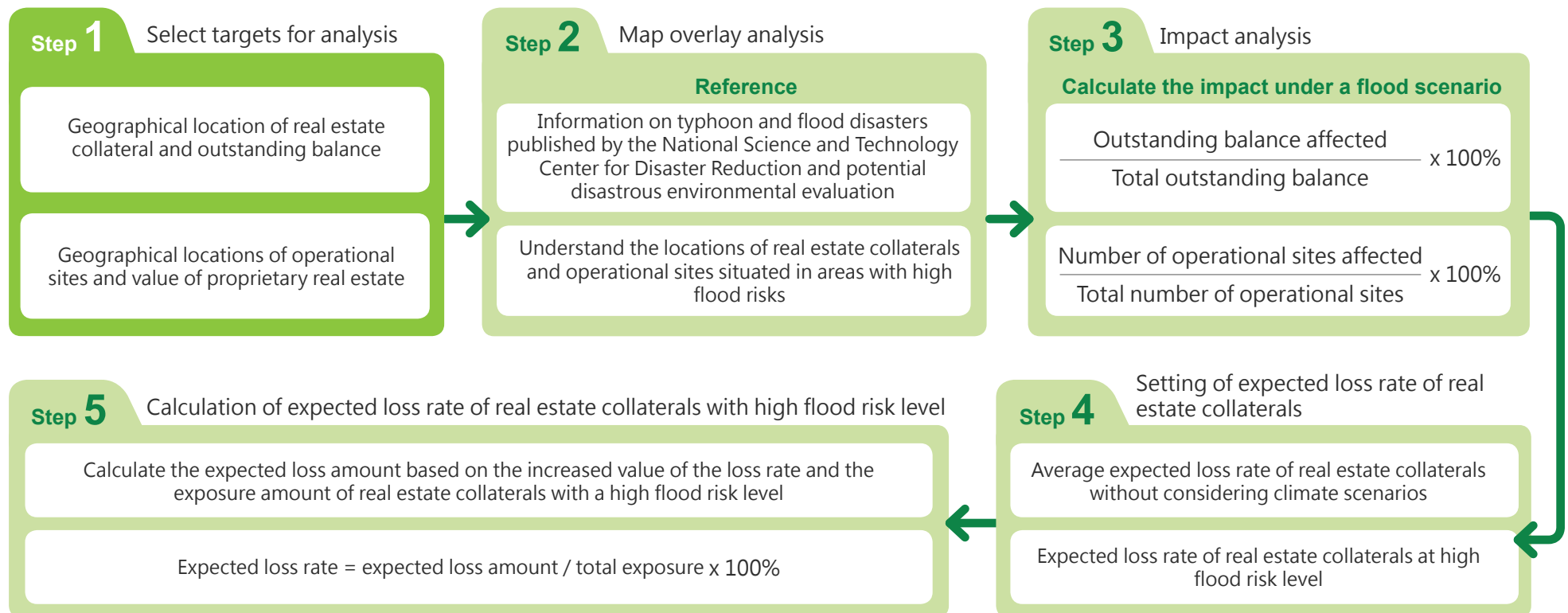
There have been many discussions on the topic of heavy rain and flooding caused by extreme weather in recent years. In addition to its own operational sites, mortgages and commercial real estate loans may also be impacted and result in significant impact on the Group. Therefore, the Group conducts physical risk scenario analysis based on the map of flood potential under the RCP 2.6 (< 2°C) and RCP 8.5(4°C) scenario published on the Climate Change Disaster Risk Adaptation Platform by the National Science and Technology Center for Disaster Reduction for geographical locations in Taiwan. This helps the Group understand the potential impact on its business and asset value in the context of greater climate change in the future.

##### Targets of assessment

The Group's real estate collaterals and whole business locations in Taiwan.

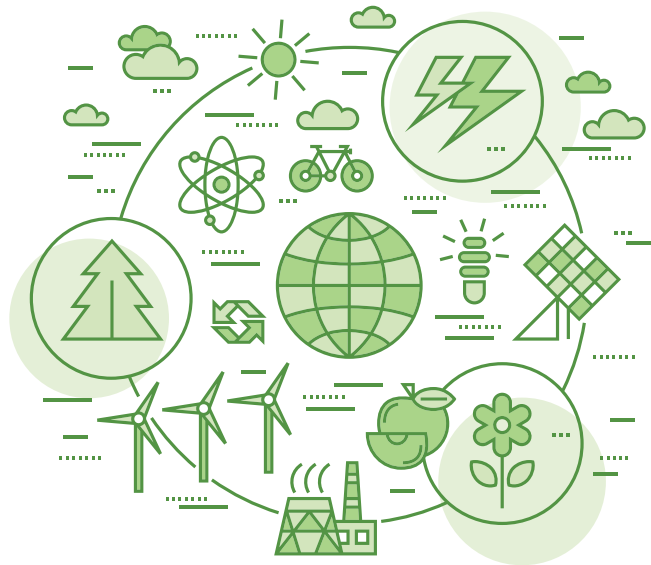
##### Method of assessment

Disaster risk model and Expected loss model



### Assessment results

- (1) Under RCP2.6 scenario, about 0.93% of real estate collaterals are located in areas with high flood risks at the end of the century, accounting for about 2.49% of the total loan amount. The expected loss rate is 0.12%, which is still within the controllable range. 0.91% of operational sites in Taiwan are located in areas with high flood risks at the end of the century.
- (2) Under RCP8.5 scenario, about 8.91% of real estate collaterals are located in areas with high flood risks at the end of the century, accounting for about 8.74% of the total loan amount. The expected loss rate is 0.70%, which is still within the controllable range. 8.79% of operational sites in Taiwan are located in areas with high flood risks at the end of the century, mainly in the southern regions.



### Responding strategy

Based on the assessment results, the Group's short-term (within one year), medium-term (1-3 years) and long-term (no less than 3 years) arrangement, and below are our climate change response management measures:

- (1) The Group has established physical risk adaptation measures for operational sites, and formulated policies and regulations such as "Operating Guidelines for Reporting Significant Incidents," "Information Manual for Business Continuity and Disaster Response Management" and "Crisis Management Policy and Procedures Rules," etc., which could be dealt with in the short term.
- (2) The Group commits to continuously improve energy efficiency and reduce greenhouse gas emissions, requires that newly built real estate should meet the design standards of green buildings, so as to maximize the use efficiency of resources, and the design of green buildings itself considers the water conservation of the base and the symbiosis with the environment, in the face of disasters that may occur in extreme weather, the new buildings will be equipped with adequate physical risk adaptation capabilities.
- (3) In the long-term, in order to avoid interruption of the Group's operations or loss of asset value due to heavy rain and flooding events, when expanding locations and relocation of operating sites, the Group will conduct "Yuanta Financial Holdings Location Selection Evaluation Form" to prevent future disasters and lower operational loss. This assessment was based on climate change risk, flood control measures, disaster insurance and other factors into consideration to confirm whether the future operating site can cope with the impact of extreme weather and prevent and reduce possible operating losses.
- (4) To ensure availability and flexibility of the financial resource and reduce the financial losses caused by climate change, when the risk of flooding of real estate collateral increases significantly, consider measures such as reducing the loan ratio in the area and increasing typhoon and flood insurance based on the change in the loss rate, the number of foreclosures, and the recovery amount to reduce the possible damage to real estate collateral located in areas with high flood risk.

## 5. Opportunity Scenario Analysis: Quantitative Assessment of Renewable Energy Equipment Financing Needs

### Importance of assessment

The Bureau of Energy, Ministry of Economic Affairs, announced the "Administrative Measures for Managing Electricity Users with a Certain Installed Capacity to Install Renewable Energy Equipment" at the end of 2020, which have been officially put in force on January 1, 2021. The Group has assessed that this trend will bring about a huge demand for financing of renewable energy equipment. In order to assess the potential market share of the opportunity, the market valuation method has been adopted for further financial quantitative analysis.

### Targets of assessment

The Group assessed steel and iron companies in Taiwan that may be subject to regulatory oversight.

### Method of assessment

Market valuation method



### Step 1 Calculate the demand for renewable energy equipment

#### Scenario assumption

1. Target company chooses to install solar panels
2. Develop new products or services without additional investment

The "Administrative Measures for Managing Electricity Users with a Certain Installed Capacity to Install Renewable Energy Equipment" requires 10% of electricity consumption to come from renewable energy sources for companies with an installed capacity of over 5,000 kW

Evaluate how much the renewable energy equipment's installed capacity (kW) would be by 2025 by local steel and iron companies that might be under regulatory oversight

### Step 4 Estimate the additional interest income

$$\text{Additional interest income} = \text{The Group's market share} \times \text{interest rate}$$

### Step 3 Analyze the share of own market

Estimate the Group's market shared by taking into account domestic and international trends as well as models for market share analysis.

### Step 2 Calculate the cost for installing solar panels

$$\text{Market size} = \text{Demand for equipment's installed capacity} \times \text{Installation costs}^{(\text{Note})}$$

Note: Installation costs are calculated based on the Bureau of Energy's statistics of NT\$43,400/kW

### Assessment results

It is estimated that the market value of Taiwan's steel and iron industry's demand for renewable energy equipment will reach NT\$6.75 billion by 2025. After analyzing the market share the Group can realize, it is estimated that this opportunity will bring NT\$2.73 million of interest income.

### Responding strategy

Yuanta Bank issued its first sustainable bond on March 21, 2022. The funds will be used to fund investments which quality as green investments, such as the development of renewable energy and energy technology, energy efficiency improvement and energy conservation, greenhouse gas reduction, waste recycling, pollution prevention and control or circular economy, etc., to support and fund key industries with sustainable initiatives, assist the energy transformation of the clients, and support the growth of sustainable industries with real actions.



# 03

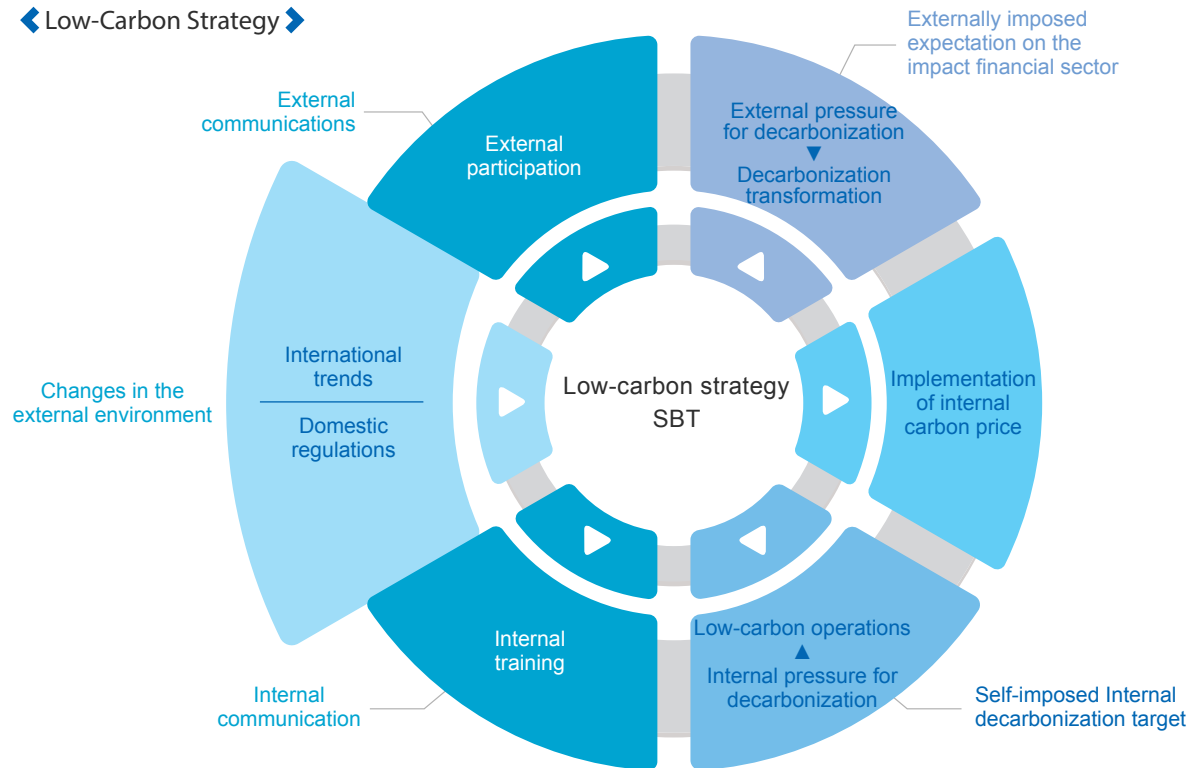
## Low-Carbon Strategy

- 3.1 Strategy Overview
- 3.2 Setting SBT
- 3.3 Implementation of Internal Carbon Pricing
- 3.4 Low-carbon Operations
- 3.5 Low-carbon Transformation
- 3.6 Communications and Initiatives

### 3.1 Strategy Overview

As climate change challenges become increasingly severe, governments around the world have accelerated various adaptation and mitigation measures. The Group is committed to reducing the impact of its own operations with high energy conservation and carbon reduction standards. The financial sector is not only an important force for stabilizing the society and economy, as fund manager and provider, there are high expectations on the sector to lead industries towards low-carbon transformation. With the vision of achieving net zero emissions by 2050, the Group follows the Science Based Target (SBT)<sup>®</sup> methodology to set practical targets. To this end, it actively lowers carbon emissions by implementing Internal Carbon Pricing, ICP<sup>®</sup> strategizing low-carbon operations and low-carbon transformation to proactively reduce its carbon emission. It also actively communicates with internal and external stakeholders to shape the Group's overall low-carbon strategy, increase its resilience in the face of climate risks, and demonstrates its commitment to combat climate change.

◀ Low-Carbon Strategy ▶

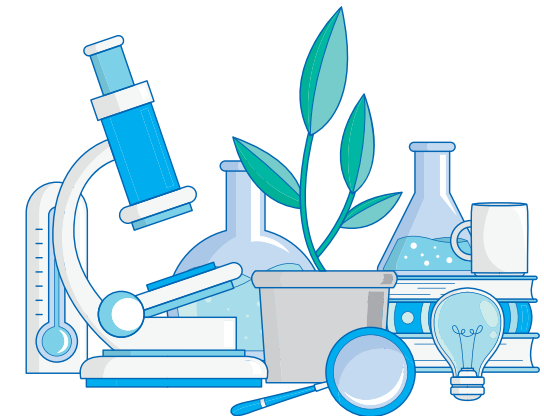


### 3.2 Setting SBT

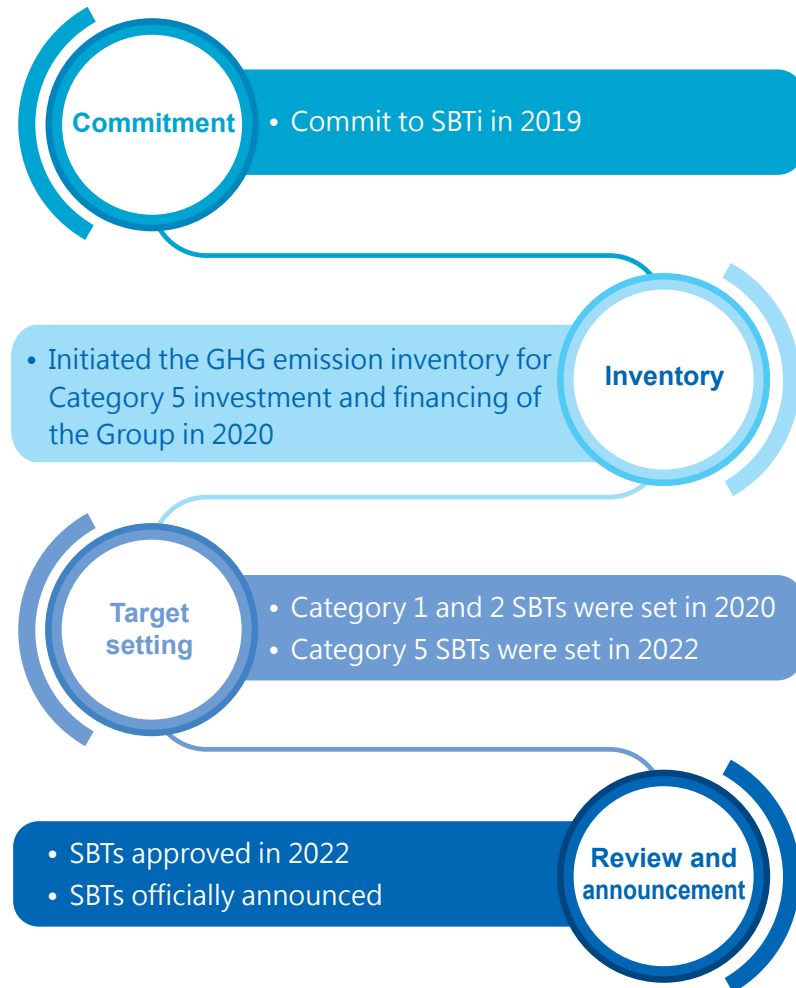
Science Based Targets initiative (SBTi)

SBTi is a joint global initiative among the Carbon Disclosure Project (CDP), the United Nations Global Compact, the World Research Institute (WRI), and the World Wild Fund for Nature (WWF). The initiative guides companies and financial institutions to formulate decarbonization pathways with carbon reduction and speed necessary to avoid severe impacts from climate change by promoting the establishment of reduction and net-zero targets in line with climate science, namely the science-based target.

In 2019, the Group signed the "Science Based Targets initiative (SBTi) " as the first diversified financials company in Taiwan to support the initiative. In 2020, the Group started formulating the GHG emission inventory and SBT for its investment and financing portfolio.



◀ The Group's SBT Timeline ▶



Note: Since 2019, the Group has been conducting GHG inventories in accordance with the new version of ISO 14064-1:2018. The corresponding names of the old and new versions are as follows: Category 1 is Scope 1 (Direct GHG emissions), Category 2 is Scope 2 (Electricity indirect GHG emissions), Categories 3-6 are now Scope 3 (Other indirect GHG emissions).

In order to truly implement the low-carbon strategies, it is critical for the group not only disclosure the Category 1(Direct GHG emissions) and Category 2(Electricity indirect GHG emissions) but also Category 5 investment GHG emission, since the investment of financial institution is the key to lead industries implement low carbon transition. Therefore, the Group's primary task is inventorying and disclosing Category 5 investment GHG emissions related to investment and financing activities. We continue to improve the GHG inventory methodology by referring to the tool developed by the Partnership for Carbon Accounting Financials (PCAF)<sup>⑦</sup>, the Global GHG Accounting and Reporting Standard for the Financial Industry<sup>⑧</sup>, as well as the TCFD disclosure recommendations. In 2020, the GHG emission inventory was completed for Category 5 investment and financing assets, with the scope covering electricity generation project financing, commercial real estate loans, investment in listed equity and corporate bonds, long-term corporate loans, etc.

Partnership for Carbon Accounting Financials (PCAF)

In 2015, ASN Bank from the Netherlands formed PCAF with 14 Dutch financial institutions to develop and implement standardized methods to assess and disclose the GHG emissions of loans and investments in the financial sector. So far, over 250 multinational financial institutions and banks have joined PCAF, with total assets exceeding US\$72 trillion.

◀ GHG Emissions of the Group's SBT Investment and Financing Portfolio ▶

Category of Assets	GHG Emissions (tCO <sub>2</sub> e)	2019	2020	2021	2022
Electricity generation project financing		147,791.74	54,783.41	100,707.22	42,574.12
Commercial real estate loans		25,331.11	21,183.47	23,386.90	12,688.11
Investment in listed equity and corporate bonds		920,385.55	2,653,603.35	2,310,400.66	1,503,131.29
Long-term corporate loans		491,464.81	411,046.62	504,551.43	551,245.34

Note: Only long-term investment in listed equity and corporate bonds were inventoried in 2019, and from 2020 till 2022 all (long-term and short-term) investment were included in listed equity and corporate bonds inventory.

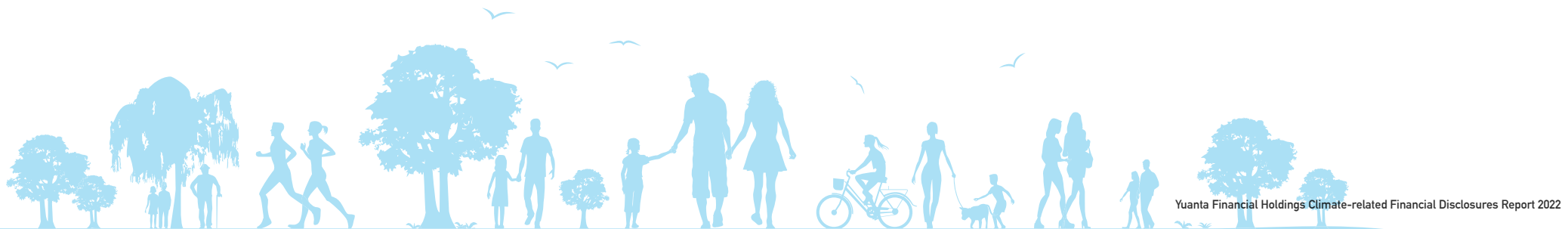
To manage the company's GHG emission in investment and financing portfolios, not only did the company in 2022 inventorying the scope that SBT required, but also include short-term loans and sovereign bonds.

◀ GHG Emission of the Group's Investment and Financing Portfolios ▶

Category of Assets	2019	2020	2021	2022
Total financed absolute emissions (tCO <sub>2</sub> e)	1,584,973.21	3,140,616.85	2,939,046.21	3,536,366.38
Total emission intensity (tCO <sub>2</sub> e/NT\$1 billion revenue)	3.74	5.25	4.73	4.38
Data Quality	1.93	2.39	2.09	1.57
Total investment and lending portfolio coverage (%)	22.41	28.64	27.51	35.14

To further track and manage the impact of climate change on the investment and financing portfolio, the Group conducted independent investment and financing GHG emission analysis for 7 high carbon emission industries in investment portfolio and financing portfolio. These industries will account for approximately 60% of the total long-term carbon emissions of the Group's overall investment and financing portfolio in 2022. (For further details, please refer to 4.2 Metrics and Targets for Low-carbon Transformation Management.

SBTi officially released the Financial Sector Science-based Targets Guidance<sup>®</sup> in February 2022, providing a set of customized and standardized target setting methods and verification standards for the financial sector, helping it align its investment and financing portfolio with the Paris Agreement goals. In accordance with this guideline and the SBTi decarbonization pathway, the Group completed the SBT target-setting for Category 1, 2 and Category 5 in 2022. The results have been submitted to SBTi for review in the first quarter of 2022. The SBT targets are approved in July 2022 for the Group to formally announce its SBT goals.



◀ SBT ▶ (Note 1)

Category 1 & Category 2			2030 absolute GHG emission reduce 42% , compared to 2020	
Category 5 (Investment & finance )	Set according to each investment and financing target	Electricity generation project finance	49% reduction in GHG emissions per MWh by 2030 in comparison to 2019 for electricity generation project finance portfolio	
		Corporate loans	Commercial real estate	59% reduction in GHG emissions per square meter by 2030 in comparison to 2019 for corporate loan portfolio for commercial real estate sector
			Electricity generation	49% reduction in GHG emissions per MWh by 2030, in comparison to 2019 for corporate loan portfolio for electricity generation sector
		Other long-term loans		58% reduction in GHG emissions per square meter by 2030, in comparison to 2019 for corporate long-term loan portfolio for finance, retail, service, food and lodging, and real estate development sectors
				38% reduction in GHG emissions by 2027 for corporate long-term loan portfolio for fossil fuel <sup>(Note 2)</sup> , electrical and electronic equipment as well as general manufacturing sectors (calculated based on the loan value)
Listed equity and bonds investment <sup>(Note 3)</sup>		SBT targets are set at 39% (out of the invested value) by 2027 for investment portfolio for listed equity and bonds		

Note: 1. Targets validated by SBTi please refer to: [https://sciencebasedtargets.org/resources/files/Target-language-and-summary\\_Yuanta-Financial-Holding-Co.-Ltd.docx.pdf](https://sciencebasedtargets.org/resources/files/Target-language-and-summary_Yuanta-Financial-Holding-Co.-Ltd.docx.pdf)

2. The target includes 100% of the Group's fossil fuel corporate loans

3. The listed equity and corporate bond investment portfolio includes common stock, preferred stock, corporate bonds, exchange-traded funds (ETF), real estate investment trust (REIT) investments and mutual funds.

The Group utilizes SBT as its guiding direction to promote low-carbon operations and low-carbon transformation strategy. Moreover, internal carbon pricing has been introduced to expedite the transformation. In the meantime, the Group actively engages with internal and external stakeholders, joins hands with value chain partners to work together towards mitigating climate change, and commits to disclosing its progress each year.



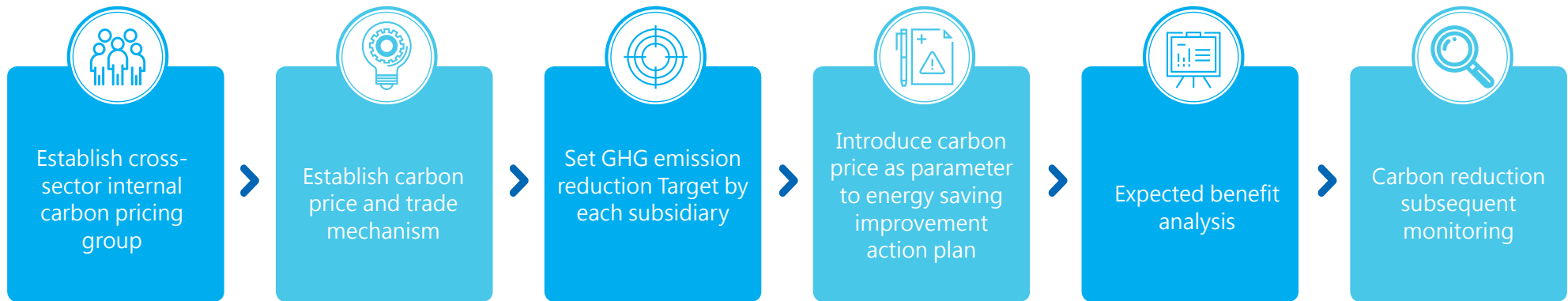
### 3.3 Implementation of Internal Carbon Pricing

The boundary of the Group's internal carbon pricing mechanism currently includes the GHG emissions in Category 1 and 2. Refer to the foreign carbon price and the estimated carbon cost of the 2050 net-zero carbon emission scenario, to price the greenhouse gas emission cost of the enterprise; through the establishment of an internal carbon price group, based on international carbon reduction goals, carbon price, and the change of net-zero transformation investment costs, rolling adjustments to the internal carbon price, and it is decided that NT\$1,500 per ton of carbon will be used as the internal carbon price of the group at this stage. The Shadow Price<sup>®</sup> model has been adopted to assist subsidiaries in evaluating the benefits of energy-saving and carbon-reduction projects, which also aligns with ISO 50001 energy management system to maximize synergy. Carbon reduction benefit is monetized by incorporating carbon pricing parameters within the input and output of each energy-saving improvement plan. This way, the decision process is modified from analyzing purely from the economic viewpoint (input cost including equipment, manpower, etc.) to a more comprehensive viewpoint by incorporating environmental impact to calculate the return on investment or cost-effectiveness of the projects under assessment. Further, review the annual carbon reduction performance through the annual greenhouse gas inventory, and link the carbon reduction target to the annual work target of the senior management in the future.

#### Implementation and Objectives of Internal Carbon Pricing

Implementing the application	The purpose of implementation
<p>In order to achieve the group's science-based carbon reduction targets and comply with Taiwan's Climate Change Response Act and the 2050 Net Zero Emissions policy, the group adopts an internal carbon pricing mechanism as a reduction tool for Category 1 and Category 2 greenhouse gas emissions. This approach also meets stakeholders' expectations for carbon reduction efforts by the company.</p>	<ul style="list-style-type: none"> <li>• Comply with greenhouse gas regulations</li> <li>• Meet stakeholder expectations</li> </ul>
<p>To cultivate awareness of carbon reduction within the company, the group has linked the internal carbon pricing with the carbon reduction plan as one of the performance assessment criteria. This encourages each subsidiary to propose their own carbon reduction action plans and collaborate to achieve the group's carbon reduction targets.</p>	<ul style="list-style-type: none"> <li>• Changing internal behaviors</li> </ul>
<p>By internalizing the external costs associated with carbon emissions through internal carbon pricing, the group can use it as a reference for future actions such as replacing high-energy-consuming equipment, procuring energy-efficient devices, and switching to more energy-saving LED lighting.</p>	<ul style="list-style-type: none"> <li>• Improving energy efficiency</li> </ul>
<p>Currently, the application boundary of internal carbon pricing within the group primarily focuses on Category 1 and Category 2 greenhouse gas emissions. In the future, based on the achievements and ongoing observation of domestic and international trends, the group intends to expand the scope of application to include investment targets and supplier negotiations. This expansion aims to identify and manage carbon-related risks and opportunities, as well as promote resilience in the face of transition risks</p>	<ul style="list-style-type: none"> <li>• Promoting low-carbon investments</li> <li>• Identifying and seizing low-carbon opportunities</li> <li>• Supplier engagement</li> </ul>

◀ Schematic diagram of internal carbon pricing ▶



### 3.4 Low-carbon Operations

With the effect of global warming intensifying in recent years, extreme weather has caused frequent natural disasters all over the world. The major environmental impact caused by climate change has become a severe challenge for sustainability of businesses. Although the financial sector is not as directly affected by climate change, the Group sees itself as being responsible for playing the role as the "green pioneer in environmental change" by incorporating low-carbon actions of its own operations as a dimension in its sustainability strategy. The group's Corporate Sustainability Office has established an "Environmental Sustainability Group" responsible for developing environmental management systems, voluntarily implementing various environmental and energy management systems, and conducting greenhouse gas inventories. In 2022, the company formulated the "Environment and Energy and Climate Change Management Policy<sup>[3]</sup>," which was approved by the board of directors. Through standardized and systematic management, we harness the power of organizational integration.

The Group promotes low-carbon operations with three fronts: standardization, systematic management and organizational integration. This is exemplified by obtaining environmental management system certification, planning for green buildings, and adopting renewable energy.

### Management and Certification

The Group pays close attention to the impact of climate change on the environment and takes active measures to fight global warming. In 2018, it obtained the group-wide ISO 14064-1 GHG inventory and verification, creating a basis for setting long-term SBT targets. In addition, all 10 proprietary buildings of the Group in Taiwan passed the ISO 50001 energy management system verification in 2022. Since the full implementation of the energy management system in 2016, the overall performance of energy management has improved by nearly 10%, and the accumulated carbon emission has been reduced by more than 1,761.12 tCO<sub>2</sub>e. In the future, by leveraging on the management system, the Group will continue to improve the buildings' energy use and reduce GHG emissions.

## Green Buildings

In consideration of extreme climate will result in interrupted operation at locations or value loss of self-owned assets, to mitigate and adjust operational impacts climate events can incur, the Group lists economic effect, climate change (flood and soil liquefaction), protective equipment (fire protection and flood protection), and sustainable building (Green Building Label, power generated by renewable energy, rainwater harvesting system, Energy Label) in location expansion site selection assessment to prevent future disasters and operational loss.

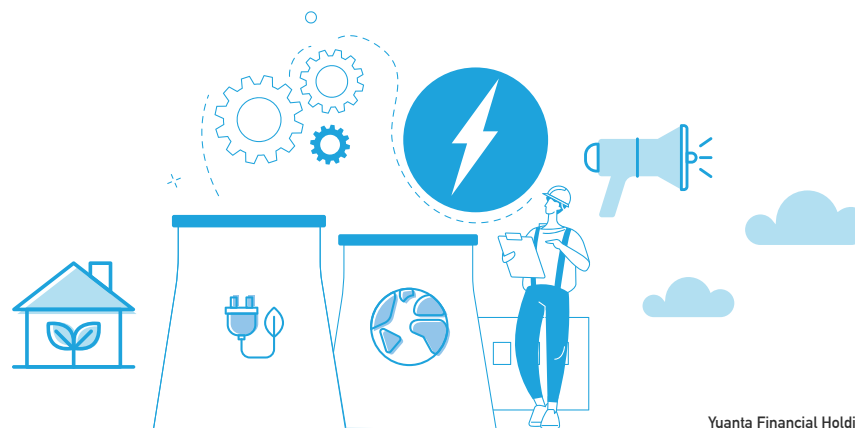
Moreover, to lower the impact our operations have on the environment, the Group expects all self-owned buildings built in the future obtain Green Building Label. From the designing phase, greening and water conserving of the construction base, energy-saving building envelope, rainwater harvesting, green building material are taken into account to make the building coexist with the environment, have development and sustainability at the same time, so our low-carbon sustainability target can be reached in our operations. So far Yuanta Insurance's Yuantai Plaza has obtained Green Building Label—Silver Grade Level from the Ministry of the Interior.

## Renewable Energy

The Group's use of renewable energy has evolved from the initial advocacy stage of purchasing Renewable Energy Certifications (T-REC)<sup>®</sup> in the past five years. As regulatory requirement become more relaxed, it has advanced to direct procurement of renewable energy (green energy wheeling). In 2020, the Group signed the "Power Purchase Agreements (PPA)<sup>®</sup>" with renewable energy producers and officially launched renewable energy wheeling in the third quarter of 2021 as the first domestic financial services provider to adopt 100% green energy in its operational sites, kicking off the green energy era for the financial sector in Taiwan. In 2022, Yuanta Securities, Yuanta Bank, and Yuanta Futures, through PPA with renewable energy providers, all of these five facilities are powered by 100% green electricity.

As a green pioneer in Taiwan's financial sector, the Group creating a new chapter for the domestic financial sector with the "green energy for commercial buildings" model and moving towards the goal of 10% of green energy in the overall electricity consumption by 2023. As of the end of December 2022, 25% of the Group's operational sites, including Securities and Yuanta Bank, Yuanta Life, Yuanta Fund and Yuanta Futures have officially started using green electricity. In 2022, a total of 945,900 kWh of green energy will be transferred.

The Group not only actively supports use of renewable energy, but is even more careful in selecting its source. We prioritize solar power plants considering its operational type, and require such plants to provide planning description and photos of the site to avoid impacts on the existing environmental ecosystem during the development of solar power. Through actual actions to combat climate change and protect the environment and the ecosystem, together we take on the responsibility for the global climate.





## Other Low-carbon Actions

In addition to the three key low-carbon actions mentioned above, to further reduce the potential risks of carbon emissions from the Company's operations and mitigated the effects of climate change by implementing various other energy-saving action plans, paper reduction measures and awareness-raising campaigns to promote energy saving, carbon reduction and environmental protection to its employees.

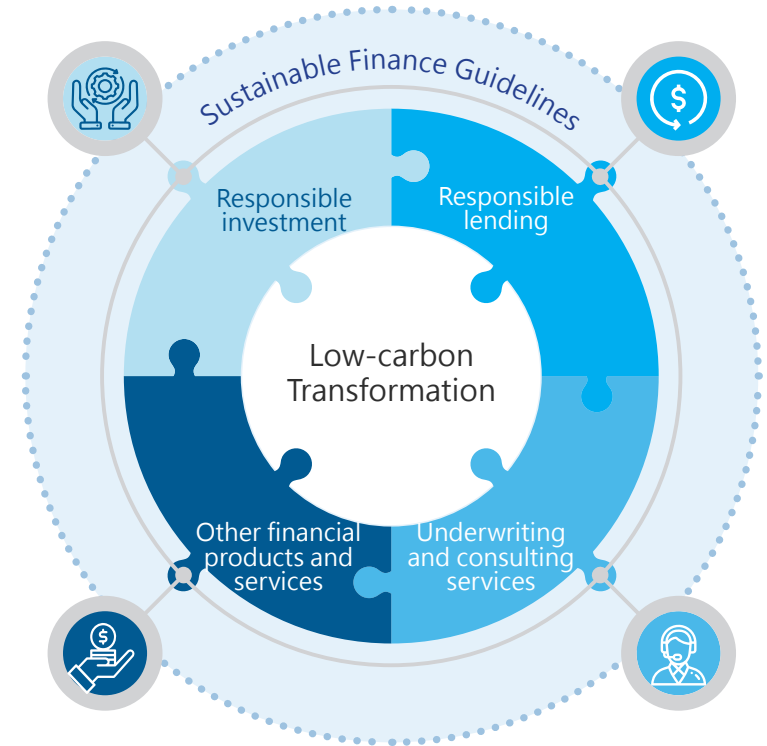
Low-carbon Operation Actions	Examples	Amount of Carbon Reduction (tCO <sub>2</sub> e)
Energy-saving action plan	LED energy-saving lamp replacement, automatic shutdown of drinking water dispensers, old air-conditioner replacement, etc.	112.55
Paper reduction measures	Internal E-documents, e-payment slips, tablets for major meetings, Yuanta E-academy, etc.	14.44

Note: The amount of carbon reduction is calculated based on the 2021 electricity carbon emission factor of 0.509 (kg CO<sub>2</sub>e/kWh) as recently announced by the Bureau of Energy of the Ministry of Economic Affairs. Detailed calculation can be found in Chapter 3.2 Contribution to the Development of Green Operations - Low- Carbon Operations of the 2022 ESG Report. <sup>(1)</sup>

## 3.5 Low-carbon Transformation

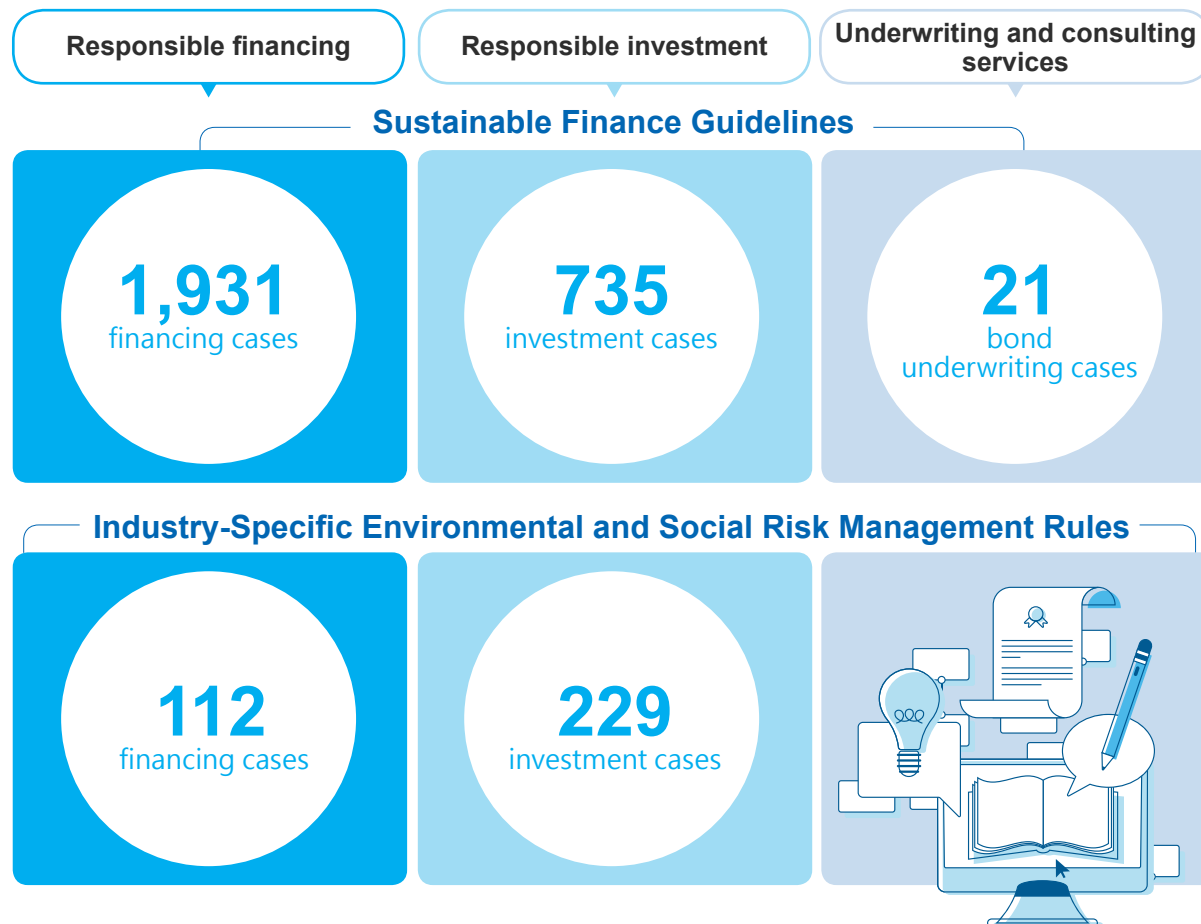
In addition to practicing low-carbon in its own operations, as a financial intermediary, the Group fosters low-carbon transformation by providing funding to sustainable industries, and launch diversified and differentiated innovative products and services for different businesses. The Group's low-carbon transformation strategy is divided into four aspects, including responsible lending, responsible investment, underwriting and consulting services, as well as other financial products and services.

### ◀ Overview of Low-carbon Transformation Strategy ▶



The Group's Sustainable Finance Guidelines<sup>[2]</sup> serves as the highest-level framework and guidelines for the development and provision of financial products and services; our subsidiaries comply with the regulations as they implement sustainability into business planning and corporate operation and expand that into their products and services. The number of credit, investment, underwriting and consulting services approved by our Sustainable Finance Guidelines and Industry-Specific Environmental and Social Risk Management Rules<sup>[4]</sup> as of December 2022 are shown in the figure below. For industry-based detailed disclosed content pertaining to approved cases and amount, please see 4.1 Sustainable Finance - Supporting Sustainable Economic Development of the Company's ESG Report 2022.

◀ Sustainable Finance Implementation Highlights ▶



Responsible financing

◀ Overview of Responsible financing ▶



1. Corporate Finance Credit Business: follow the "Sustainable Finance Guidelines" to implement responsible financing
2. Project Financing: Formulate the "Guidelines for Managing Equator Principles Financing Cases" based on the "Equator Principles"
3. Personal Finance Credit Business: Develop the risk evaluation process in line with the "Sustainable Finance Guidelines"



1. Sustainable Industry Corporate Finance Credit Business
2. Sustainability-Linked Loan
3. Consumer Finance Products and Services



**Monitoring and Controlling Risks**

**Corporate Finance Credit Business**

Yuanta Bank follows the "Sustainable Finance Guidelines" to coordinate with the adjustment of relevant business practices and internal processes, incorporate sustainable financial risk management into the credit business review and decision making process, and require the completion of sustainable financial assessment for credit business, stipulating that credit business should carefully assess whether there are potential risks of environmental and social hazards in the counterparty or transaction content. E&S (environmental and social) review is included in the KYC procedure for companies with high climate risks to enhance client due diligence. In addition, the "Industry-Specific Environmental and Social Risk Management Rules" regulate that when relationship managers undertake lending for applicants in high-risk industries, they should fill in the "Industry-Specific Environmental and Social Risk Management Checklist" applicable to each subsidiary to understand the social and environmental management measures of business partners, review the potential impact of social and environmental risks, as well as their ability to adapt to environmental and social risks to ensure the manageability of the risks identified. Regulations on Issuance Prohibited Company is added this year, those include companies with more than 50 % coal-fire power generation, industries of non-regular oil and gas, where coal and non-regular oil and gas related profit takes up more than 30% of their total profit and has no concrete improvement action or plans. For detailed information, please see 4.1.Sustainable Finance - Supporting Sustainable Economic Development of the Company's ESG Report 2022.

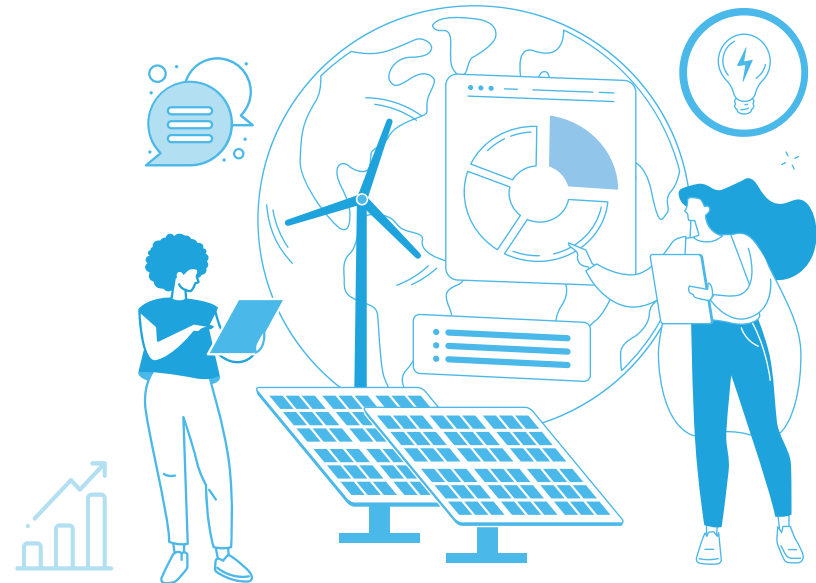
**Project Financing**

Yuanta Bank officially signed the Equator Principles<sup>④</sup> in 2020, and implemented the "Guidelines for Managing Equator Principles Financing Cases<sup>⑤</sup>" and relevant operating procedures in June 2021. When a sales department provides customer credit or financial advisory services, it must confirm whether the current deal follows the Equator Principles. If it meets the conditions and is assessed as a medium to high environmental and social risk project, it should require the credit recipient to entrust an independent third-party agency to monitor environmental and social risks as well as submitting a report for its environmental and social risk assessment. If post-loan monitoring assessment is required as part of the condition for loan grant, the credit recipient shall be required to regularly entrust an independent third-party institution to perform environmental and social risk monitoring assessment and issue a report.

If the credit recipient fails to comply with the post-loan monitoring specifications for environmental and social risks, an acceptable action plan for the Equator Principles needs to be drawn up to confirm compliance with the Equator Principles to raise the business partners awareness on environmental protection and social responsibilities. In 2022, Yuanta Bank accordance with the Equator Principles evaluation and declined three financing projects. For detailed information, please see 4.1. Sustainable Finance - Supporting Sustainable Economic Development of the Company's ESG Report 2022.

**Personal Finance Credit Business**

Yuanta Bank proactively implements relevant KYC (Know Your Customer) procedure to strengthen due diligence in personal finance credit business (including auto loan for corporate clients), as well as verifying information through the "Anti-money Laundering (AML) System" to verify if the credit recipient may have violated relevant regulations. When providing personal loan products, Yuanta Bank adheres to professional principles to prudently evaluate the clients' credit conditions, capital needs, financial capabilities, and the value of the collateral to provide appropriate credit lines. In the process of evaluating the clients' ESG risks and opportunities, the credit review, credit guarantee, and an inspection of the collateral are required in all cases to fully understand their financial ability and the state of the collateral.



Capturing Opportunities

Sustainable Industry Corporate Finance Credit Business

In response to the Government's Innovative Industry Policy of Six Core Strategic Industries, Yuanta Bank lends to green power and renewable energy industries, supporting key industries to obtain funds. In addition, the Group also supports industries devoted to satisfying industry environmental-friendly equipment requirements and pollution prevention through resource integration and innovative green material R&D to help Taiwan's industries move towards a low-carbon and sustainable transition.

- In 2022, the total amount of Yuanta Bank's corporate lending for sustainable industries accounts for 32.73% of the bank's total corporate lending business.

Sustainability Linked Loan

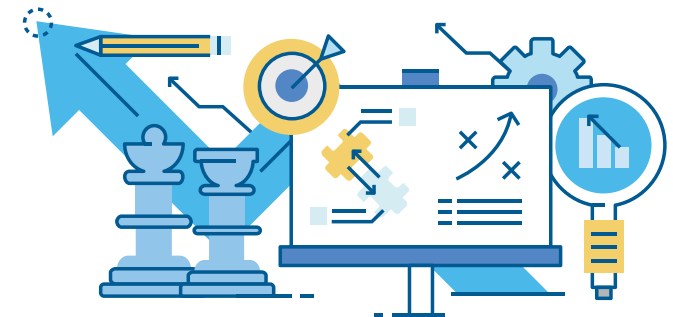
To follow the spirit of the "Sustainable Finance Guidelines", Yuanta Bank promotes Sustainability-Linked Loan and encourages enterprises to implement sustainable behaviors. When enterprises reach the set sustainable indicators, Yuanta Bank will give preferential conditions such as interest rates and rates to support the enterprises who promote sustainability.

- Twenty two cases of Sustainability-Linked Loan were approved in 2022, with a total amount of approximately NT\$18.5 billion

Consumer Finance Products and Services

To strengthen ESG interactions with customers, on the credit card statements, Yuanta Bank invites customers to practice green consumption and cultivate sustainable lifestyle habits. In addition, in order to encourage customers to purchase low-carbon products such as green buildings and gas/electric vehicles, Yuanta Bank continues to cooperate with new energy vehicle manufacturers in 2022, offering discounts on handling fees, exclusive test rides and preferential car loan programs. The online car loan and mortgage calculator also encourages people to purchase new energy vehicles and obtain housing that has "Green Building Label." Customers are encouraged to prioritize sustainable products to create a sustainable homeland together with the Group.

- In 2022, the amount of Consumer finance products and services related to sustainability accounted for about 7.07% of all consumer finance lending.



◀ Low-carbon Industries Financing ▶

Unit: NT\$ thousand

Areas of Credit	2021			2022		
	Loan Amount	Total Lending Amount <sup>(Note)</sup>	Proportion of Total Lending(%)	Loan Amount	Total Lending Amount <sup>(Note)</sup>	Proportion of Total Lending(%)
Loans for green energy and renewable energy industries	52,749,740		10.66	51,718,058		8.09
Loans for green energy and renewable energy infrastructure	10,171,799		2.05	22,381,367		3.50
Loans for circular economy industry	68,940,600	494,985,834	13.93	93,568,527	639,585,085	14.63
Loans for low-carbon building and infrastructure	7,064,900		1.43	3,456,100		0.54
Sustainability-Linked Loan	4,030,000		0.81	38,151,584		5.97
<b>Total</b>	<b>142,957,039</b>		<b>28.88</b>	<b>209,275,636</b>		<b>32.73</b>

Note: In this table, the total lending amount and loan amount are defined as the amount of money from new cases in the current year.

◀ Low-carbon Personal Banking Products ▶

Unit: NT\$ thousand

Areas of Credit	2021			2022		
	Loan Amount	Total Lending Amount <sup>(Note)</sup>	Proportion of Total Lending(%)	Loan Amount	Total Lending Amount <sup>(Note)</sup>	Proportion of Total Lending(%)
Green building mortgage	1,664,340		1.21	1,737,980		1.43
New energy vehicle loan	3,552,793	137,572,874	2.58	6,876,922	121,769,757	5.65
<b>Total</b>	<b>5,217,133</b>		<b>3.79</b>	<b>8,614,902</b>		<b>7.07</b>

Note: In this table, the total lending amount and loan amount are defined as the amount of money from new cases in the current year.

Responsible Investment

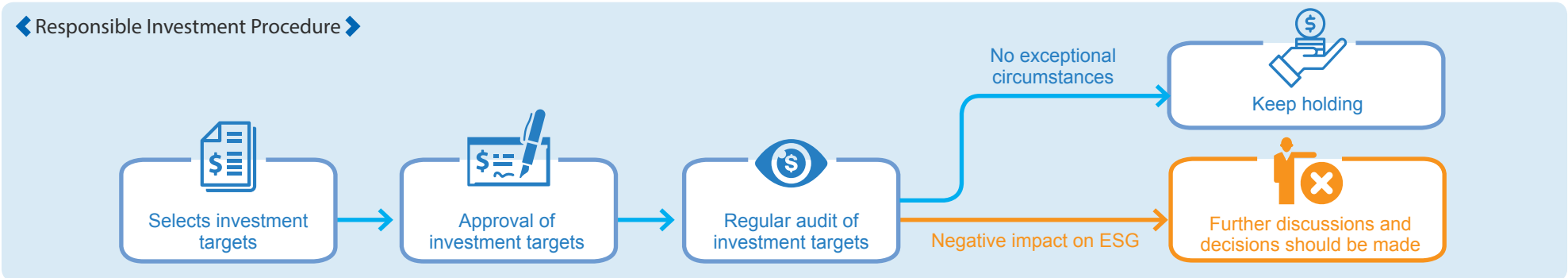
◀ Overview of Responsible Investment ▶



1. Corporate Investment: Develop a responsible investment procedure in line with the "Sustainable Finance Guidelines"
2. Stewardship: Subsidiaries including Yuanta Securities, Yuanta Bank, Yuanta Life and Yuanta Funds sign the Stewardship Principles for Institutional Investors and regularly publish the "Stewardship Report"
3. Sustainable Insurance: Yuanta Life issued the "Stewardship Report" in accordance with the UN's "Principles for Sustainable Insurance (PSI)"



1. Investment of Sustainable Related Targets
2. Development of ESG Investment Products
3. Low-carbon Investment Plan



**Monitoring and Controlling Risks**

**Corporate investment**

The Group implements its responsible investment procedure in line with the "Sustainable Finance Guidelines", integrating ESG-related screening criteria into investment norms based on industry characteristics. When Yuanta Securities, Yuanta Bank and Yuanta Life are selecting investment targets, environmental and social performance of the investment targets are also taken into consideration to reduce environmental or social risks caused by investment, and use funds to support sustainable enterprise development.

**Stewardship**

The Group's subsidiaries including Yuanta Securities<sup>[6]</sup>, Yuanta Bank<sup>[7]</sup>, Yuanta Life<sup>[8]</sup> and Yuanta Funds<sup>[9]</sup> have all signed the "Stewardship Principles for Institutional Investors," as well as published the "Statement of Compliance with Stewardship Principles for Institutional Investors," "Stewardship Report," "Voting Records of Attendance in the Shareholders' Meetings of Invested Companies" on the company website to demonstrate the Group's determination for responsible investment. The Group continues to follow closely operational status and sustainable-related actions of its investees to actively realize responsible investment targets. At the same time, through various methods such as holding meetings and telephone communication, they also actively participate in law seminars and shareholder meetings, etc., to communicate with the company's management. When these companies violate ESG principles or damage the rights and interests of the Group's customers or beneficiaries, the Group will exercise voting rights or other shareholder rights to appeal to the management of these companies, thereby affecting their behavior.

**Sustainability Insurance**

Yuanta Life stays updated with international trends in sustainable finance by integrating ESG issues into its operational decisions. Since 2021, Yuanta Life issued the "Principles for Sustainable Insurance and Stewardship Report" annually with the first part of the report concentrating on the 4 principles of the UN's Principles for Sustainable Insurance (PSI)<sup>®</sup>, disclosing the methods and performance of risks and opportunities arising from ESG issue management from the perspectives of the entity itself, its customers, regulators, general public and other stakeholders. The second part of the report adopts the structure of the 6 principles in the "Stewardship Principles for Institutional Investors" published by Taiwan Stock Exchange to disclose how to integrate factors for consideration and standards of ESG in investment processes and decision-making, thereby promoting the sustainable development of investees to fulfill its responsibilities as an institutional investor.

## Capturing Opportunities

### Investment of Sustainable Related Targets

The Group actively participates in the investment of sustainability related targets, combines ESG related selection mechanism to implement the spirit of responsible investment, and invest in sustainable development bonds, the Government's "Five plus Two" Innovative Industry including green energy technology, circular economy etc. to introduce capital into companies that value sustainable development.

- In 2022, the Group's total responsible investment amount is NT\$ 56.64 billion.

### Development of ESG Investment Products

The Group launched multiple sustainability products in response to the trends surging ESG investment market and sustainable energy resource topics. This includes energy efficiency funds, ESG funds, ESG ETFs, and warrants for green energy. Products complying with ESG spirit are offered to clients to create investment options for a sustainable future.

- In 2022, the Group's investment in financial products with sustainability implications accounted for approximately 58.53% of the total assets.

### Low-carbon Investment Plan

In response to the low-carbon economy trend, the subsidiaries of the group actively invest in and develop industries with green and environmental implications, such as solar energy cells, renewable energy services, and waste management. Through strategic investments, these subsidiaries are expected to bring short, medium, and long-term benefits and impacts to the capital market and the group as a whole.

In the short term, by combining funds, technology, and expertise, the subsidiaries invest in targets with high potential for development, new technologies, and rapid growth within the low-carbon economy transition. They assist these targets in developing new products, providing technical support, and marketing channels. Once the investments are successful, the subsidiaries arrange for the acquired or invested companies to merge or go public, generating investment returns for the group.

In the medium term, the subsidiaries strategically invest in a portfolio focused on low-carbon transformation, positioning themselves in green energy technology, renewable energy industries, and circular economy sectors. These investment targets, characterized by low greenhouse gas emissions, are less susceptible to transition risks, providing the group with relatively stable capital gains.

In the long term, through strategic investments, the subsidiaries aim to exert influence in emerging and rapidly growing key industries within the low-carbon economy. These industries, due to their novel business models and inherent investment uncertainties, may struggle to attract sufficient capital. By proactively investing in and mentoring relevant companies, the subsidiaries not only enhance market confidence in these industries but also contribute to building a vibrant capital market for the sector.



Proprietary Sustainable Investment Products

Unit: NT\$ thousand

Categories	2021			2022		
	Asset size	Total Asset	Proportion to Total Asset(%)	Asset size	Total Asset	Proportion to Total Asset(%)
ESG Integrated	28,715,830	815,767,928	3.52	28,588,551	968,355,952	2.95
Best in Class	11,094,953		1.36	9,818,078		1.01
Thematic	14,573,596		1.79	10,760,868		1.11
Impact Investing	325,989,117		39.96	474,726,250		49.02
Others	46,679,828		5.72	42,983,646		4.44
<b>Total</b>	<b>427,053,324</b>		<b>52.35</b>	<b>566,877,393</b>		<b>58.53</b>

- Note: 1. ESG Integrated: Incorporate ESG models or set relevant screening principles, and systematically incorporate ESG factors into investment analysis and decision-making.  
 2. Best in Class: Select industries, companies or projects with relatively good ESG performance.  
 3. Thematic: Invest in single or multiple underlying related to sustainability (for example: climate change or clean energy, etc.).  
 4. Impact Investing: Have a measurable social and environmental impact and financial return.  
 5. Others: Investment products rated five earths by Morningstar and not classified into the above categories.

Underwriting and Consulting Services

Overview of Underwriting and Consulting Services

Monitoring  
and  
Controlling  
Risks

- Bond underwriting: Develop ESG review criteria in accordance with the "Sustainable Finance Guidelines".
- Consulting services: Develop consulting services for ESG factor review and evaluation based on the "Sustainable Finance Guidelines"



Capturing  
Opportunities

- Underwriting of Sustainable Development Bonds
- ESG Theme Consultation Services

## Monitoring and Controlling Risks

### Bond Underwriting

In order to promote the spirit of responsible investment, Yuanta Securities revised the "Principles for Responsible Investment Decision Making" in January 2023, stating that underwriting decisions should follow UN Principles for Responsible Investment (PRI)<sup>14</sup> and the spirit. ESG compliance should be assessed according to the "Responsible Investment Checklist." If the service applicant belongs to a specific industry with high environmental and social risks, the "Industry-Specific Environmental and Social Risk Management Evaluation Checklist" should be filled in to carry out the ESG review process. The underwriting case should be approved by the manager of the investment banking department, and underwriting should exclude companies prohibited by the "Sustainable Finance Guidelines." Moreover, certain industries which have been classified as those which Yuanta Securities will support and those that require enhanced assessment will also be identified. If a decision has been made to underwrite those that require enhanced assessment, reasons would need to be given.

### Consulting Services

In order to actively implement the "Sustainable Finance Guidelines", Yuanta Securities holds an evaluation meeting before undertaking an Initial Public Offering(IPO) and Secondary Public Offering(SPO) case to explore further information on the environmental friendliness, social responsibility and other sustainability related issues. For the development of relevant ESG review guidelines, please see 4.1. Sustainable Finance - Supporting Sustainable Economic Development of the Company's ESG Report 2022.

## Capturing Opportunities

### Underwriting of Sustainable Development Bonds

In 2022, Yuanta Securities supported the underwriting of sustainable development bonds where it participated in the underwriting of 12 green bond for TSMC, E.SUN Bank, Taiwan Power Company, etc.; 6 Sustainability bonds including Chunghwa Telecom, Yuanta Bank and First Commercial Bank; 1 social bond for Far Eastone Telecommunications; 2 sustainability-linked bonds (SLB) for Far Eastern New Century Corporation and CHIMEI Corporation, totaling a bond underwriting value of NT\$ 20.4 billion.

- In 2022, Yuanta Securities's sustainable development bonds underwriting accounted for 19.09% of the total bond underwriting value.

### ESG Theme Consultation Services

Yuanta Securities actively provides consultation services such as IPO, SPO, seasoned equity offering and issuance of convertible bonds industries with businesses that have a positive impact on the environment, and improves social welfare. This year, 15 sustainable finance underwriting cases have been completed, and please see 4.1. Sustainable Finance - Supporting Sustainable Economic Development of the Company's ESG Report 2022 for detailed information.

- In 2022, the proportion of consulting services that provided environmental friendly, social welfare, and sustainable related industries accounted for 100%.

◀ Performance of ESG Theme Consultation Services ▶

Unit: NT\$ thousand

Categories	2021			2022		
	Sustainability Consulting IPO/SPO Value	Total Consulting Service Value <sup>(Note)</sup>	Proportion of Total Consulting Service Value (%)	Sustainability Consulting IPO/SPO Value	Total Consulting Service Value <sup>(Note)</sup>	Proportion of Total Consulting Service Value (%)
Environmentally friendly and social rights related industries	18,412,659		42.76	7,157,471		49.00
Other Companies with Sustainability-Related Issues	24,536,500	43,059,506	56.98	7,503,554	14,661,025	51.00
<b>Total</b>	<b>42,949,159</b>		<b>99.74</b>	<b>14,661,025</b>		<b>100.00</b>

Note: Total Consulting Service Value is defined as Underwritten Amount

Other Financial Products and Services

Issuance of Sustainable Development Bonds

Yuanta Bank issued NT\$ 2 billion in sustainability bond on March 21, 2022. The funds are expected to be used to support green investment and social benefit investment plans with the required financing, from the environmental front, supporting key development industries such as solar cell manufacturing and renewable energy power generation, assisting the energy transformation of the real economy. From the social front, providing financing for medical care and urban renewal. It continues to plan to provide green funding for corporate sustainability projects, thereby supporting the growth of sustainable industries with real actions.

- In 2022, the percentage of sustainability bonds issued by Yuanta Bank accounted for about 7% of the total issued bonds.

Paperless Policy

In order to achieve its paperless policy, Yuanta Bank launched various digital initiatives. This includes digitalizing branch counter guide, marketing campaigns and digital platform process transformation. Other digital applications include e-statement subscription, online passbook application and online account opening, online account inquiries, transactions, various applications and signatures to achieve the goal of energy saving and carbon reduction.

- In 2022, Yuanta Bank customers saved a total of 177 million sheets of A4 paper through online applications.

**Product Carbon Footprints**

Yuanta Bank's full range of credit cards obtained ISO 14067 product carbon footprint certification in 2021. Two certification applications have also been approved by the Environmental Protection Administration, Executive Yuan, including the "Product Carbon Footprint Label" and "Product Footprint Reduction Label" in September 2022. We are committed to continue to enhance digital services and lower GHG emissions while using credit cards together with our clients.

In addition, the Group has focused on the Mobile Banking app that has flourished recently in response to the green finance initiatives the competent authorities are promoting and in response to climate change. The Group conducts voluntary inventory of carbon footprint of products in line with ISO 14067, and passed the PAS 2060 Carbon Neutrality Standard and Certification in March 2022, becoming the zero carbon application (APP).

Yuanta Securities responds to the United Nations Net Zero Emissions targets, green finance policies of the Financial Supervisory Commission (Taiwan) and the Group's sustainable development policies by integrating ESG concepts into its operational strategies. Yuanta Securities "Mr. Investor App." became the first zero carbon APP in Security industry that have obtained ISO14067 (Product Carbon Footprints) certification in March 2022, and in June 2022 further received PAS2060 carbon neutral standard certification. To further respond to climate change, the Group will continue to develop sustainable products and enhance its financial service processes to reduce the impact on the environment from operating activities, strengthen the key role of financial service institutions in the global low-carbon transition, and drive customers towards a low-carbon life.

- Yuanta Bank's full range of credit cards obtained two certifications—the "Product Carbon Footprint Label" and "Product Footprint Reduction Label"; Yuanta Securities' "Mr. Investor App" and Yuanta Bank's "Mobile Banking App" have declared to be carbon neutral, making them zero-carbon applications.

**Digital Transformations in Financial Services**

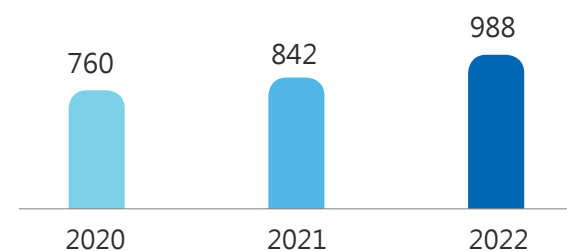
To adapt to climate impacts, explore climate opportunities, and overcome impacts on Yuanta locations from extreme climate, rising sea levels, and exacerbating physical risks, the Company is actively adjusting business model, listing fintech as one of the importance development strategies. The Company is launching new services with the help of digital technologies by digitalizing over-the-counter services (e.g., opening accounts online and purchasing insurance policies online), digitalizing related documentation (e.g., electronic bank statements and electronic insurance policies), and shifting toward paperless processes. This can provide customers with fast and convenient digital services, effectively reduce carbon emissions generated from in-person services, and prevent business interruption risks from exacerbating physical risks.



**Cultivating digital talent**

To usher in digital transformation and embrace fintech trends, the Company is recruiting digital talents and has already increased related headcount by 30%. By the end of 2022, the Company employed nearly thousands of fintech and information-related professionals, accounting for 8% of the Group's total headcount. In 2022, the company organized a recruitment campaign to uncover potential talents, and up to 45.83% of job openings were related to fintech, information, and information security, an indication of the importance the Company attaches to fintech professionals.

◀ Fintech & Information Employees (ppl) ▶



**Sustainable Digital Projects**

In recent years, the Group has actively sought digital transformation, bolstering digital fintech platforms according to the nature of its subsidiaries' businesses; optimizing service quality across application scenarios such as online applications, smart finance, and diverse payment methods; and creating low-carbon service processes. For example, in 2022, Yuanta Bank integrated sustainability into its product and service designs, upholding the belief that finance is life as it launched the first mobile carbon account - Diamond-Gold Carbon Lucky Account. With the Diamond-Gold Carbon Lucky Account, customers can check their monthly contributions to carbon emissions reduction on Yuanta Bank's mobile application, raising awareness for green consumer behavior and allowing customers to integrate green practices into their daily lives. Yuanta Bank's mobile application is also accredited with ISO 14067 Product Carbon Footprint and PAS 2060 Carbon Neutrality, showing that the bank is taking real action to extend green finance from corporate customers to individual consumers, especially in mobile applications. Yuanta Bank continues to work with customers to strive for a low-carbon future.

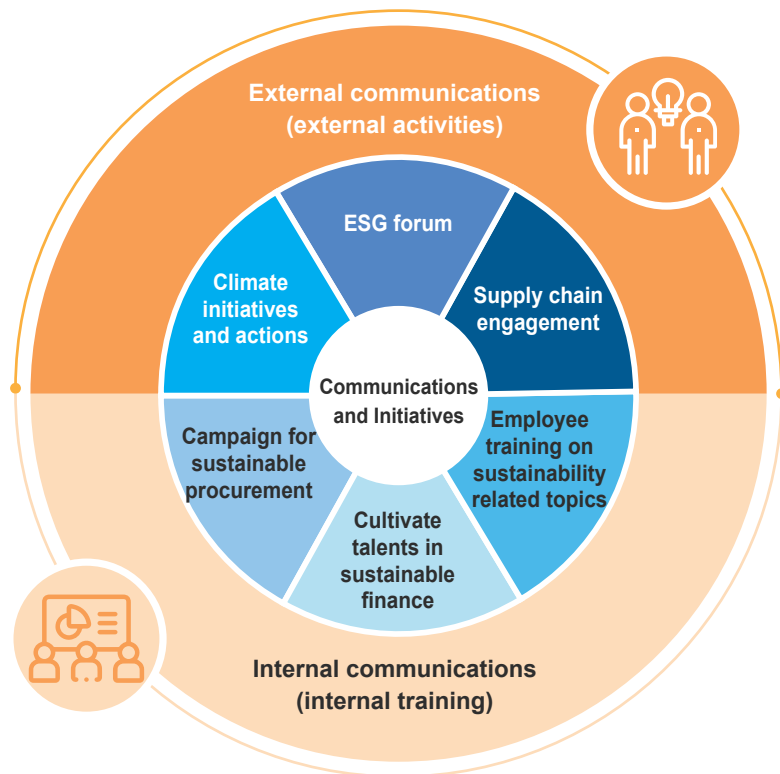
Digital revolution also presents climate opportunities. The Group is leveraging fintech's high resource efficiency and low-emission services to preemptively hedge itself against climate risks and strengthen operational resilience. As the Group continues to provide evolving and digitalized financial services to customers, it continues to exert its sustainability influence by raising customer awareness of climate change and environmental protection, inviting the public to shift towards a net-zero lifestyle, and pushing forward the depth and berth of sustainable finance.



### 3.6 Communications and Initiatives

In addition to the low-carbon transformation and low-carbon operations strategies, the Group also drives the industry towards low-carbon transformation through external engagement, as well as strengthening the knowledge and capabilities of its employees in sustainable finance, green finance, climate change, etc. to be better prepared for the risks and opportunities posed by climate change in the future.

◀ Overview of Communications and Initiatives ▶



### External Communications

The Group has responded to climate change issues through external participation, including participating in climate initiatives and actions, organizing ESG forums, supply chain engagement and so on.

**Participation in Climate Initiatives and Actions**

Joining international initiatives does not only enhance the international visibility of the Group's management of climate change, but also fosters financial influence to promote the low-carbon transformation of the entire industry in order to realize the ultimate goal of sustainable finance.

**SBTi** The Group is the first diversified financials company in Taiwan to advocate the SBTi. Carbon reduction goals are set in line with the SBT methodology, with the SBTi completing its review and announcement in July 2022.

**CDP** The Group has participated in Carbon Disclosure Project (CDP)<sup>®</sup> questionnaires since 2015. In 2016, the Group became a CDP investor signatory "supporting the CDP's climate change, water, and forest programs." The Group has secured a CDP score of A and "Leadership Level" for three consecutive years and received a score of A and "Leadership Level" from CDP's Supplier Engagement Rating (SER).

**RE10X10** The Group responds to the "RE10x10 Climate Declaration<sup>®</sup>" initiative by actively promoting the use of renewable energy. In addition to becoming the first financial services company in Taiwan to announce that it will adopt 10% of green energy out of the Group's total electricity consumption by 2023. In 2022 completed the target of adopting 100% of green energy at 5 operations, setting the new model for the use of green energy in the financial sector.

**Substantial Participation in Climate Actions**

In addition to participating in international initiatives, the Group also participates in climate-related actions, such as responding to the "Earth Hour" global event initiated by the World Wide Fund for Nature (WWF) between 8:30 and 9:30 PM on the last Saturday of March each year by turning off the lights. In 2022, over 50 suppliers responded to the action, to face the issue of climate change and global warming. Also in 2022, keeps responded to the initiative "Do One Thing for Tamsui River" initiated by the CommonWealth Magazine, inviting suppliers to clean the beach to remove garbage that endanger the eco-system of Tamsui River.

◀ Earth Hour ▶ 、 ▶ Do One Thing for Tamsui River ▶



**Organize and participate in ESG forums**

Facilitating exchanges across the industry, government, and academia through ESG forums, working together to advocate for ESG. In addition, the Group uses offline and online campaigns to raise public awareness of ESG principles and their sustainability literacy. In 2022, the Group organized three ESG forums, initiating dialogue with scholars, professional agencies, corporate customers, peers, and the public to engage in discussions within and outside the industry and strive for a sustainable transition towards a better future.

**Sustainable Net-Zero Transition**

On August 16, 2022, industry and academic experts from research institutes, professional agencies, and the Company engaged in discussions and provided suggestions on how the financial sector and companies can reduce carbon emissions, develop renewable energies, and strive for sustainable development and transitions with guidance from policies and given international trends.

**Green Financial Ecosystem**

On September 2, 2022, the forum invited scholars, the private sector, and the Company to explore global trends in environmental risks, the process of companies internalizing ESG development to business strategies, and how companies can direct market funds into companies practicing sustainable development through sustainable investments. The Group's corporate customers were also invited to attend the forum as the company strived to work with customers to realize ESG transition.

**Sustainability Trends in the Financial Sector**

On December 9, 2022, the Company co-organized an ESG panel with the Taipei Foundation of Finance, British Standards Institution (BSI), Google and our Company jointly held the ESG seminar and our Company jointly held the ESG seminar to spotlight topics relating to net-zero emissions and information security; explore transparent disclosure of sustainability information, climate risk management, and information security governance; and work together to focus on key sustainability trends in the future, striving to exert the financial sector's influence.

## Supplier Engagement

Through engagement with investors and holding supplier conferences, etc., promote clients and value chain partners are encouraged to jointly face ESG and climate change.

### Investor Engagements

As institutional investors, Yuanta Life and Yuanta Funds engage with investees, helping them formulate response measures, mitigation plans, and future goals on environmental issues. Investees commit to setting and tracking KPIs on ESG issues and invest resources to strengthen sustainable practices, e.g., investing in research and programs on biodiversity, GHG emissions, air pollution reduction, and carbon capture. Yuanta strives to reduce the environmental impacts of its operations and adapt to climate change to achieve sustainable development.

### Supplier Conference

The Group has held supplier conference each year since 2019. In addition to actively taking actions towards sustainability, suppliers are invited to join the Group on the quest for sustainable development. The conference focuses on the concept and practice of supply chain management and sustainable procurement, illustrates how to maximize corporate social influence, and actively embrace the sustainable development with a future of co-prosperity. The theme is adjusted each year according to the latest sustainable trend, and the invitations are sent to relevant suppliers so that the suppliers can keep current with the trends in sustainability, and work together to achieve co-prosperity. In addition, training is provided at each supplier conference based on different topics to strengthen the suppliers' practice and improve their knowledge on sustainability issues. Three supplier conference were held in 2022, and total 64 main suppliers participated the conference.

## Internal Communications

In response to the wave of climate change, the Group equips all employees with knowledge of climate change, sustainable finance, and sustainable procurement through internal training, as well as developing training programs according to their roles to enhance the Group's climate resilience.

### Employee Training

The Group trains its employees to be familiar with implementing sustainable finance in their daily tasks, as well as cultivating a sustainable culture. This in turn will prepare them to be able to assist their clients to further the benefits of sustainability. In 2022, all domestic employees participated in sustainable and green finance training with a total of 425 classes, over 130 thousand participants, and a total of 160 thousand training hours.

### Cultivating talents in Sustainable Finance

To embed ESG thinking in the development of financial product, the Group furthered its sustainable finance training program in business planning, corporate finance, digital finance, financial product design, investment transactions and risk management were required to attend green finance forums, seminars, sustainable finance courses and certification. In 2022, with a total of 854 courses on sustainable finance topics were arranged, over 180 thousand participants, and an approximate of 220 thousand training hours. Employees were able to enhance their sustainable finance knowledge and turn learning into practices.

### Sustainable Procurement Campaigns

The Group held 4 quarterly procurement meetings in 2022 to share key items for improvement learnt from the Group's procurement-related audits, promote the integration of ESG in supplier management, as well as raise awareness of matters related to sustainable procurement. In addition, 6 "procurement seminars" sessions were held for the Department of Procurement this year. Besides enhancing bargaining ability, green procurement awareness was strengthened and audit procedures were improved in order to realize the Group's spirit of green procurement.



# 04

## Metrics and Targets

4.1 Metrics and Targets for Low-carbon Operation Management

4.2 Metrics and Targets for Low-carbon Transformation Management

## 4.1 Metrics and Targets for Low-carbon Operation Management

The Group adopts standardization, systematic management and organizational integration, to establish low-carbon short-, medium- and long-term goals, introduce tracking mechanism and continuously reduce the impact of climate change from its operations.

### GHG Emissions

Greenhouse gas emissions (tCO <sub>2</sub> e)	2019	2020	2021	2022
Category 1	1,361.94	1,492.17	1,660.71	1,436.98
Category 2 (location-based)	20,150.58	22,388.12	20,593.33	18,562.91
Category 2 (market-based)	19,896.08	22,128.53	20,407.59	18,562.91
Category 1 & 2 (tCO <sub>2</sub> e)	21,512.51	23,880.29	22,254.04	19,999.89
Carbon intensity (tCO <sub>2</sub> e/NT\$1 billion revenue)	199.92	206.53	186.63	218.57

- Note: 1. The inventory is conducted based on ISO 14064-1:2018. The operational control approach is used to set the organizational boundary.
2. The GHG emissions are calculated using the emission factor method = activity data x emission factor x Global Warming Potential (GWP). GWP references to IPCC 2021 AR6 version.
3. Category 1 and 2 GHG emissions include carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons.
4. Category 1 GHG emissions mainly come from gasoline and refrigerant. The emission factors are calculated using the "Taiwan Environmental Protection Administration Greenhouse Gas Emission Factor Management Table 6.0.4."
5. Category 2 GHG emissions are externally procured electricity, and calculated using the latest historical electricity carbon emission coefficients announced by Taiwan's Bureau of Energy, Ministry of Economic Affairs (MOEA) in 2022. The emission coefficient is calculated using the quantitative method of "Taiwan Environmental Protection Administration Operating Guidelines for Greenhouse Gas Emissions Inventories." Therefore, the GHG emissions of Category 2 (location base) and Category 2 (market base) in 2022 are comparably equivalent.

### Renewable Energy Use

Item	2019	2020	2021	2022
Purchase of renewable energy certificates (kWh)	500,000	510,000	370,000	--
Green power wheeling (kWh)	--	--	157,300	945,900
<b>Total consumption of renewable energy (kWh)</b>	<b>500,000</b>	<b>510,000</b>	<b>527,300</b>	<b>945,900</b>

### Objectives and Achievements

	Category 1 and 2 reduction	Renewable energy
Target (base year 2020)	<b>Achievements in 2022</b>	
	Reduce 16.2%	<ul style="list-style-type: none"> <li>All 5 operational sites utilize 100% green electricity.</li> <li>Green electricity supplied amounts to 945,900 kWh.</li> </ul>
	<b>Mid term target (2023)</b>	
	6% reduction in carbon emissions and 5% reduction in energy consumption per unit of revenue.	<ul style="list-style-type: none"> <li>At least 4 operating locations use 100% green energy.</li> <li>The use of green energy has reached 4% of the benchmark year's electricity consumption (equivalent to approximately 1.6 million kWh).</li> </ul>
<b>Long term target (2025)</b>		
8% reduction in carbon emissions and 7% reduction in energy consumption per unit of revenue.	<ul style="list-style-type: none"> <li>The use of green energy has reached 6% of the benchmark year's electricity consumption (equivalent to approximately 2.4 million kWh).</li> </ul>	
<b>SBT target (2030)</b>		
Reduce 42%	--	

## 4.2 Metrics and Targets for Low-carbon Transformation Management

To meet the expectations of stakeholders from all walks of life for the financial sector in terms of guiding the economy towards a low-carbon transformation, the Group took 2019 as the base year, as well as following the recommended methods of PCAF and TCFD to launch the carbon emission calculation of the financed emission from the Group's loans, equity and bond investment portfolios as well as the carbon intensity calculations.

### Absolute GHG Emissions and Intensity of Investment and Financing

Asset Type	Category	2019	2020	2021	2022
Investment	GHG emissions from investments in listed equity and corporate bonds (tCO <sub>2</sub> e)	920,385.55	2,653,603.35	2,310,400.66	1,503,131.29
	Carbon intensity of investments in listed equity and corporate bonds (tCO <sub>2</sub> e/NT\$ million)	3.27	5.67	4.68	3.53
Financing	GHG emissions from long-term corporate loans (tCO <sub>2</sub> e)	491,464.81	411,046.62	504,551.43	551,245.34
	Carbon intensity of long-term corporate loans (tCO <sub>2</sub> e/NT\$ million)	4.03	3.70	4.60	4.17
	GHG emissions from short-term corporate loans (tCO <sub>2</sub> e)	--	--	--	233,529.96
	Carbon intensity of short-term corporate loans (tCO <sub>2</sub> e/NT\$ million)	--	--	--	3.02
Emissions from electricity generation project financing	Emissions from electricity generation project financing (tCO <sub>2</sub> e)	147,791.74	54,783.41	100,707.22	42,574.12
	Carbon intensity of electricity generation project financing (tCO <sub>2</sub> e/NT\$ million)	105.57	86.54	94.39	36.74
Avoided emissions from electricity generation project finance	Avoided emissions of renewable power project finance (tCO <sub>2</sub> e)	134,495.77	1,006.22	1,466.37	1,741.60
Commercial Real Estate Loans	GHG emissions from commercial real estate loans (tCO <sub>2</sub> e)	25,331.11	21,183.47	23,386.90	12,688.11
	Carbon intensity of commercial real estate loans (tCO <sub>2</sub> e/NT\$ million)	1.29	1.14	1.37	1.06
Sovereign Debt Investment	GHG emissions from sovereign debt investment (tCO <sub>2</sub> e)	--	--	--	1,193,197.55
	Carbon intensity of sovereign debt investment (tCO <sub>2</sub> e/NT\$ million)	--	--	--	7.54

Note: 1: GHG emissions from investment and financing are calculated based on corporate loans, electricity generation project financing, commercial real estate loans, and investment in listed equity and corporate bonds consolidated by the Group, using the Global GHG Accounting and Reporting Standard for the Financial Industry<sup>®</sup> published by the Partnership for Carbon Accounting Financials (PCAF)<sup>®</sup> on December, 2022, as reference. The relevant GHG emission data comes from the external database, self-collection and estimation.

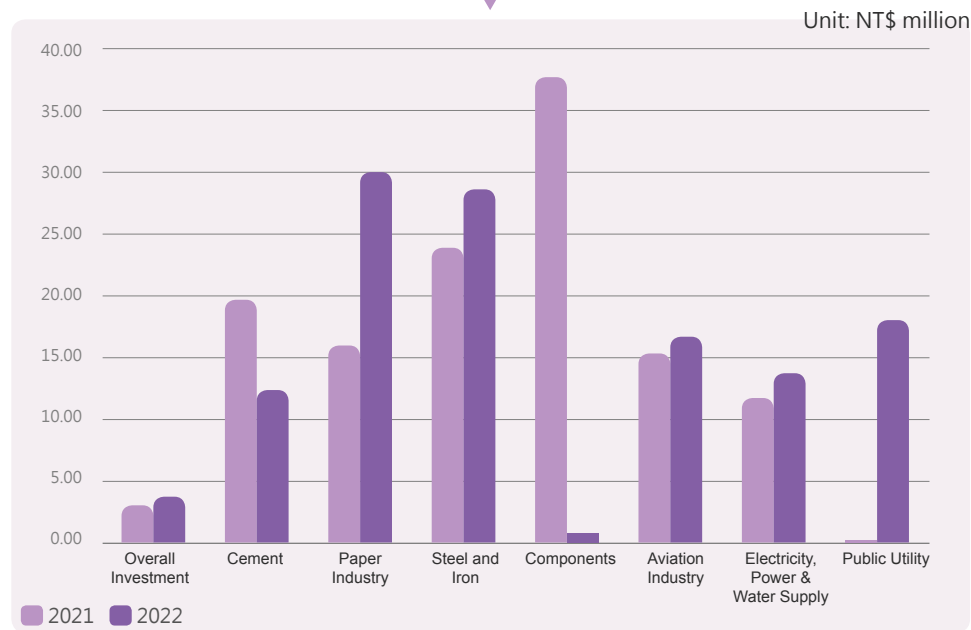
2: The Carbon intensity of each financial asset is calculated based on the methodology recommended by the TCFD guidelines. Formula: Total GHG emissions borne by financial assets (tCO<sub>2</sub>e) / financial asset exposure (NT\$ million) = GHG intensity of financial assets (tCO<sub>2</sub>e / NT\$ million).

3: Only long-term investment in listed equity and corporate bonds were inventoried in 2019, and from 2020 till 2022 all (long-term and short-term) investment were included in listed equity and corporate bonds inventory.

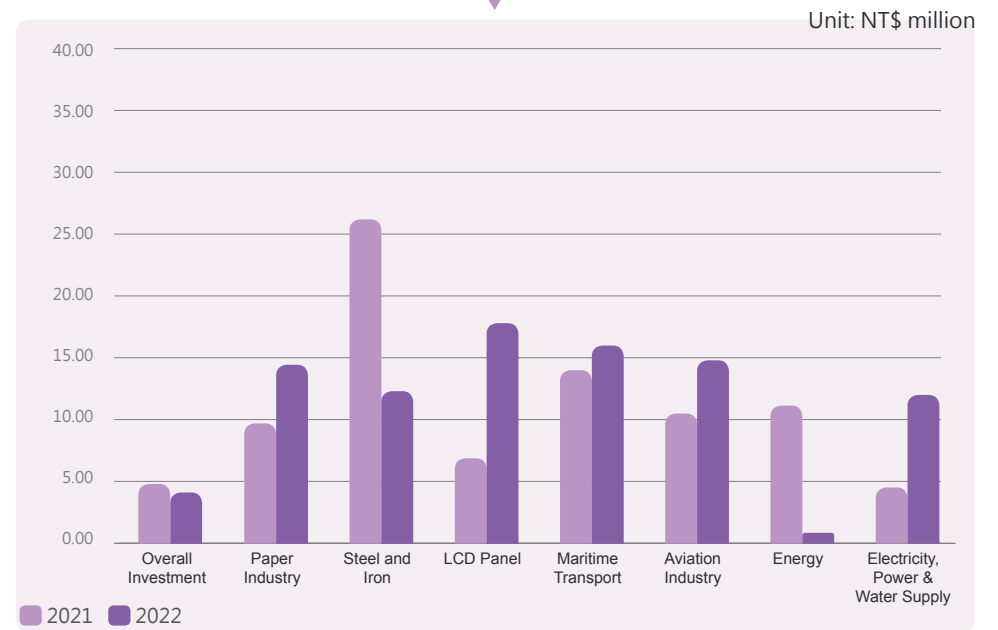
## Analysis of Greenhouse Gas Emissions in Investment and Financing of High Carbon Emission Industries

The Group conducts independent investment and financing GHG emission analysis for 7 high carbon emission industry in investment and financing. The result of the analysis is used for examining the targets in the investment and financing portfolio that contribute to high carbon emissions. In addition to strengthening engagement, the Group also expects to include the intensity of GHG emissions as a consideration for future investment and financing decisions.

**Carbon Intensity of the Group's Aggregated Long-term Investment Portfolios of Listed equity and corporate bonds and Industries with High Carbon Emission in 2021 and 2022**



**Carbon Intensity of the Group's Aggregated Long-term of Corporate loans and Industries with High Carbon Emission in 2021 and 2022**



	Overall Investment	Cement	Paper Industry	Steel and Iron	Components	Aviation Industry	Electricity, Power & Water Supply	Public Utility
2021	2.90	19.54	15.91	23.96	37.55	15.55	11.74	0.02
2022	3.26	12.03	30.05	28.98	0.32	16.44	14.29	18.66

	Overall Loans	Paper Industry	Steel and Iron	LCD Panel	Maritime Transport	Aviation Industry	Energy	Electricity, Power & Water Supply
2021	4.60	9.93	25.92	6.62	14.01	10.30	10.97	4.69
2022	4.17	14.43	11.75	18.80	16.03	14.98	0.55	12.79

Note: 1. Using the Group's internal Industries classification to classify Industries.

2. The Carbon intensity of each financial asset is calculated based on the methodology recommended by the TCFD guidelines. Formula: total greenhouse gas emissions undertaken by the investment and financing in the industry (tCO<sub>2</sub>e) / investment and financing exposure (NT\$ million) = Carbon intensity for the industry (tCO<sub>2</sub>e / NT\$ million).

# 05

## Future Outlook



## Future Outlook

Climate change risk has become the biggest threat of global and humankind. Enterprises, governments, and investors have all set their sights on the 2050 net zero goal as the last hope for humanity to fight against climate change in this century. Since 2021, the United Nations Framework Convention on Climate Change COP26, the global finance sector has joined forces and shouldered the responsibility to direct funds into net-zero transition. The Group was led by the Financial Supervisory Commission to establish the "Coalition of Movers and Shakers on Sustainable Finance," in 2022. Responding to the risks of climate change by ourselves, exert the influence of capital guidance, and drive the industry and society towards the goal of sustainable development.

In the fiscal years 2022-2023, the group achieved three significant climate management outcomes. Firstly, the establishment of the "Investment and Financing Climate Change Management Measures," which encompasses the group's investment and financing activities and incorporates climate change risks into the existing risk management process. Secondly, the implementation of monitoring thresholds for climate risk in investment positions, approved by the board of directors. The Risk Management Department monitors climate risk values on a monthly basis, further enhancing the group's climate risk management practices. Lastly, the formulation of the "Climate Finance Operating Guidelines" that provide emission reduction commitments specifically for coal and unconventional oil and gas-related investment and financing activities.

The group has consistently embraced the challenges of climate change and sought to enhance environmental management efficiency through scientific and systematic approaches. The implementation of an internal carbon pricing mechanism enables the group to achieve low-carbon operations internally and leverage

its investment and financing capabilities to drive sustainable industry transformation. The group is committed to comprehensive efforts towards achieving net-zero carbon emissions. Additionally, the group aligns with international trends and continues to enhance the disclosure of climate-related information. This report takes the lead in adhering to the International Financial Reporting Standards Foundation's Exposure Draft of IFRS S2 Climate-related Disclosure Standard<sup>17</sup>, issued in March 2022. The disclosure in this report provides insights into the group's climate management mechanisms and achievements in 2022. For further details and corresponding explanations of the disclosed content and indicators, please refer to the appendix of the report.

For the moment, international climate-related risk assessment and management methods, as well as domestic regulatory regulations are still evolving and adjusting. Forward-looking assumptions and limitations still exist in analytical methodologies of the Group's assessment of climate-related financial impacts and quantitative impact measurement methodologies, with relevant management actions still under active discussion. For example, ISSB S2 focuses more on information revealing how an organization "responds to climate change risks and opportunities" than the TCFD recommendations<sup>18</sup> published in October 2021. The ISSB S2 also explicitly requires companies to disclose the financial impacts of climate change on their organizations. The Group's established scenario analysis methodology is still at the preliminary development stage, and it is still necessary to research for emerging international trends extensively, take more potential factors into consideration and introduce financial quantitative models to optimize the measurement of actual (depth) and potential (breadth) financial impacts. And because of domestic regulatory requirements and related guidance of climate change stress tests are still developing and adjusting, the Group will continue to comply with evolving regulatory requirements to develop a more rigorous methodology for assessment.

In view of the above, the Group will continue to improve the methodology of quantitative assessment of climate risks, so as to present detailed analysis and observations in a more rigorous and faithful manner. In the meantime, the Group will continue to develop sustainable financial products and services to leverage the advantages as a leading brand in sustainable finance and assist Taiwan in achieving sustainability-related goals. In addition, it invites stakeholders from all walks of life to collaborate and strengthen climate change response strategies and awareness so as to enhance climate resilience, as well as working together to face the ever-changing trends of climate change.

# Appendix



## Appendix

### Reference and Data

- ① Recommendations of the Task Force on Climate-related Financial Disclosures (Task Force on Climate-Related Financial Disclosures, 2017)
- ② The Working Group I contribution to the Sixth Assessment Report, Climate Change 2021: The Physical Science Basis (Intergovernmental Panel on Climate Change, 2020)
- ③ ESG-Global: Heat map: Sectors with \$3.4 trillion in debt face heightened environmental credit risk (Moody's Investors Service, 2020)
- ④ The Equator Principles: <https://equator-principles.com/>
- ⑤ Science Based Targets: <https://sciencebasedtargets.org/>
- ⑥ State and Trends of Carbon Pricing 2020 (World Bank, 2020)
- ⑦ Partnership for Carbon Accounting Financials: <https://carbonaccountingfinancials.com/>
- ⑧ The Global GHG Accounting and Reporting Standard for the Financial Industry (Partnership for Carbon Accounting Financials ,2020)
- ⑨ Financial Sector Science-based Targets Guidance (Science Based Targets, 2022)
- ⑩ Emerging Practices in Internal Carbon Pricing: A Practical Guide (WBCSD, 2015)
- ⑪ Taiwan Renewable Energy Certificate: <https://www.trec.org.tw/>
- ⑫ Power Purchase Agreement: <https://www.taipower.com.tw/tc/download.aspx?mid=228&cid=477&cchk=7c40ad7d-8130-41c2-8b4e-49b75b3a6bc0>
- ⑬ Principles for Sustainable Insurance: <https://www.unepfi.org/psi/>
- ⑭ Principles for Responsible Investment: <https://www.unpri.org/>
- ⑮ Carbon Disclosure Project: <https://www.cdp.net/en/scores>
- ⑯ RE10X10: <https://cloud.greentw.greenpeace.org/campaign-climate-re10x10>
- ⑰ ISSB Climate-related Disclosures: <https://www.ifrs.org/projects/completed-projects/2023/climate-related-disclosures/#project-history>
- ⑱ Task Force on Climate-related Financial Disclosures: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD, 2021)

### Climate Policies, Reports and Publications of Yuanta Financial Holdings

- [1] Yuanta Financial Holdings ESG Report 2022: <https://www.yuanta.com/EN/ESG/ESG-Report>
- [2] Yuanta Financial Holding Co., Ltd. Sustainable Finance Guidelines: [https://www.yuanta.com/Res/Doc/Policies/ES/Sustainable\\_Finance\\_Guidelines\\_EN.pdf](https://www.yuanta.com/Res/Doc/Policies/ES/Sustainable_Finance_Guidelines_EN.pdf)
- [3] Yuanta Financial Holding Co., Ltd. and Subsidiaries'Environment and Energy and Climate Change Management Policy: [https://www.yuanta.com/Res/Doc/Policies/ES/Environment\\_and\\_Energy\\_and\\_Climate\\_Change\\_Management\\_Policy\\_EN.pdf](https://www.yuanta.com/Res/Doc/Policies/ES/Environment_and_Energy_and_Climate_Change_Management_Policy_EN.pdf)
- [4] Yuanta Financial Holding Co., Ltd. Industry-Specific Environmental and Social Risk Management Rules: [https://www.yuanta.com/Res/Doc/Policies/ES/Industry-specific\\_Environmental\\_and\\_Social\\_Risk\\_Management\\_Rules\\_EN.pdf](https://www.yuanta.com/Res/Doc/Policies/ES/Industry-specific_Environmental_and_Social_Risk_Management_Rules_EN.pdf)
- [5] Yuanta Bank Guidelines for Managing Equator Principles Financing Cases: [https://www.yuanta.com/Res/Doc/Policies/ES/Yuanta\\_Bank's\\_Guidelines\\_for\\_Managing\\_Equator\\_Principles\\_Financing\\_Cases\\_EN.pdf](https://www.yuanta.com/Res/Doc/Policies/ES/Yuanta_Bank's_Guidelines_for_Managing_Equator_Principles_Financing_Cases_EN.pdf)
- [6] Yuanta Securities Stewardship: <https://www.yuanta.com.tw/eYuanta/agent/Node/Index?MainId=00409&C1=2018032205866021&C2=2023052904178906&ID=2023052904178906&Level=2&rnd=72994>
- [7] Yuanta Bank Stewardship: <https://www.yuantabank.com.tw/bank/companyGovernance/list5.do>
- [8] Yuanta Life Principles for Sustainable Insurance and Stewardship Report: <https://www.yuantalife.com.tw/EC/operation/index.html>
- [9] Yuanta Funds Stewardship: <https://www.yuantafunds.com/srz>



## TCFD Index Comparison Table

Level	Recommended Disclosures for All Sectors	Chapter
Governance	a Describe the board's oversight of climate-related risks and opportunities.	1.1 Board Oversight of Climate-related Risks and Opportunities
	b Describe management's role in assessing and managing climate-related risks and opportunities.	1.2 Management of Climate-related Risks and Opportunities by Management
Strategy	a Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	2.2 Short-, Medium- and Long-term Risks and Opportunities
	b Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	2.2 Short-, Medium- and Long-term Risks and Opportunities 2.3 Quantitative Financial Analysis of Climate Change
	c Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	2.3 Quantitative Financial Analysis of Climate Change 3. Low-Carbon Strategy
Risk Management	a Describe the organization's processes for identifying and assessing climate-related risks	2.1 Identification, Measurement and Management
	b Describe the organization's processes for managing climate-related risks	2.1 Identification, Measurement and Management
	c Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	2.1 Identification, Measurement and Management
Metrics and Targets	a Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	4.1 Metrics and Targets for Low-carbon Operation Management 4.2 Metrics and Targets for Low-carbon Transformation Management
	b Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	4.1 Metrics and Targets for Low-carbon Operation Management 4.2 Metrics and Targets for Low-carbon Transformation Management
	c Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	4.1 Metrics and Targets for Low-carbon Operation Management 4.2 Metrics and Targets for Low-carbon Transformation Management

Level	Supplemental Recommended Disclosures for Banks	Chapter
Strategy	a Banks should describe significant concentrations of credit exposure to carbon-related assets. Additionally, banks should consider disclosing their climate-related risks (transition and physical) in their lending and other financial intermediary business activities	2.2 Short-, Medium- and Long-term Risks and Opportunities
		2.3 Quantitative Financial Analysis of Climate Change
		3.5 Low-carbon Transformation
Risk Management	a Banks should consider characterizing their climate-related risks in the context of traditional banking industry risk categories such as credit risk, market risk, liquidity risk, and operational risk	2.1 Identification, Measurement and Management
Metrics and Targets	a Banks should provide the metrics used to assess the impact of (transition and physical) climate-related risks on their lending and other financial intermediary business activities in the short, medium, and long term. Banks should also provide the amount and percentage of carbon-related assets relative to total assets as well as the amount of lending and other financing connected with climate-related opportunities.	4.1 Metrics and Targets for Low-carbon Operation Management
		4.2 Metrics and Targets for Low-carbon Transformation Management
Level	Recommended Disclosures for Insurance Companies	Chapter
Strategy	b Insurance companies should describe the potential impacts of climate-related risks and opportunities as well as provide supporting quantitative information where available, on their core businesses, products, and services, including (1) information at the business division, sector, or geography levels; (2) how the potential impacts influence client or broker selection; and (3) whether specific climate-related products or competencies are under development.	2.2 Short-, Medium- and Long-term Risks and Opportunities
		2.3 Quantitative Financial Analysis of Climate Change
		3.5 Low-carbon Transformation
Risk Management	c Insurance companies that perform climate-related scenario analysis on their underwriting activities should provide the following information: (1) description of the climate-related scenarios used, including the critical input parameters, assumptions and considerations, and analytical choices; and (2) time frames used for the climate-related scenarios, including short-, medium-, and long-term milestones.	2.3 Quantitative Financial Analysis of Climate Change
		2.1 Identification, Measurement and Management
		2.3 Quantitative Financial Analysis of Climate Change
Risk Management	a Insurance companies should describe the processes for identifying and assessing climate-related risks on re-/insurance portfolios by geography, business division, or product segments, including the following risks: (1) physical risks from changing frequencies and intensities of weather-related perils; (2) transition risks resulting from a reduction in insurable interest due to a decline in value, changing energy costs, or implementation of carbon regulation; and (3) liability risks that could intensify due to a possible increase in litigation.	2.1 Identification, Measurement and Management
		2.3 Quantitative Financial Analysis of Climate Change
		3.5 Low-carbon Transformation
Metrics and Targets	b Insurance companies should describe key tools or instruments, such as risk models, used to manage climate-related risks in relation to product development and pricing. Insurance companies should also describe the range of climate-related events considered and how the risks generated by the rising propensity and severity of such events are managed.	2.3 Quantitative Financial Analysis of Climate Change
		3.5 Low-carbon Transformation
Metrics and Targets	a Insurance companies should provide aggregated risk exposure to weather-related catastrophes of their property business.	2.3 Quantitative Financial Analysis of Climate Change
		4.2 Metrics and Targets for Low-carbon Transformation Management
Metrics and Targets	b Insurance companies should disclose weighted average carbon intensity or GHG emissions associated with commercial property and specialty lines of business where data and methodologies allow.	4.2 Metrics and Targets for Low-carbon Transformation Management

### ISSB S2 Exposure Draft Comparison Table (Version: March 2022)

Aspect	S2 recommended disclosures	Chapter
Objective	Item1 ~ Item2	Whole report
Scope	Item3	Whole report
Governance	Item4 ~ Item6	1.1 Board Oversight of Climate-related Risks and Opportunities
		2.2 Short-,Medium- and Long-term Risks and Opportunities
	Item7 ~ Item8	2.3 Quantitative Financial Analysis of Climate Change
Strategy	Item9 ~ Item12	2.3 Quantitative Financial Analysis of Climate Change
	Item13	2.3 Quantitative Financial Analysis of Climate Change
	Item14	2.3 Quantitative Financial Analysis of Climate Change
	Item15	2.3 Quantitative Financial Analysis of Climate Change 3.5 Low-carbon Transformation
Risk Management	Item16 ~Item18	2.1 Identification, Measurement and Management
		2.2 Short-,Medium- and Long-term Risks and Opportunities
Metrics & Targets	Item19 ~Item20	4.1 Metrics and Targets for Low-carbon Operation Management
		4.2 Metrics and Targets for Low-carbon Transformation Management
	Item21 ~ Item22	4.1 Metrics and Targets for Low-carbon Operation Management
		4.2 Metrics and Targets for Low-carbon Transformation Management Appendix
	Item23 ~Item24	4.1 Metrics and Targets for Low-carbon Operation Management 4.2 Metrics and Targets for Low-carbon Transformation Management Appendix

Note: For more detailed disclosure items, please refer to the Accounting Research and Development Foundation"[Exposure Draft] IFRS S2 Climate-related Disclosure Standard (ISSB S2)".

### FN-CB-1

	Industries <sup>(Note)</sup>	Exposure percentage (%)	Undrawn loan commitments percentage (%)
Carbon-related Industries	Cement Industry	1.04	1.88
	Food Industry	1.05	0.29
	Plastic Industry	1.70	0.01
	Chemicals Industry	0.27	0.22
	Paper Industry	0.29	1.01
	Steel and Iron Industry	1.20	0.72
	Stainless Steel Industry	0.09	0.45
	Automobile Industry	0.51	0.11
	Real Estate Management Industry	0.22	0.00
	Construction Industry	3.37	0.17
	Maritime Transport Industry	0.26	0.04
	Land & Other Transport Industry	0.74	0.26
	Aviation Industry	0.44	0.00
	Real Estate Investment Industry	1.70	0.68
	Energy Industry	0.64	0.19
	Electricity, Power & Water Supply	0.93	0.00
	Public Utility Industry	1.72	0.00
	Fish & animal Farming & mining Industry	0.55	0.00
	Other Industries	0.00	0.20
		<b>Sum of Carbon-related Industries</b>	<b>16.72</b>
other Industries	<b>Sum of non Carbon-related Industries</b>	<b>83.28</b>	<b>93.77</b>
	<b>Total</b>	<b>100.00</b>	<b>100.00</b>

Note : Using the Group's internal Industries classification to classify Industries.

## FN-CB-2~5

Asset Categories	Industries <sup>(Note 1)</sup>	Scope 1+Scope 2		Percentage of Exposure in Finance Emission (%)
		Absolute Gross Emission <sup>(Note 2)</sup> (tCO <sub>2</sub> e)	Gross Emission Intensity <sup>(Note 3)</sup> (tCO <sub>2</sub> e/NT\$ Million)	
Equity and Bonds Investment	Cement Industry	166,489.13	12.02	0.54
	Food Industry	4,581.05	0.51	0.35
	Plastic Industry	324,271.44	12.76	0.99
	Chemicals Industry	23,708.87	11.44	0.08
	Paper Industry	6,036.47	10.86	0.02
	Steel and Iron Industry	245,888.33	30.80	0.31
	Automobile Industry	723.02	0.28	0.10
	Real Estate Management Industry	540.78	0.16	0.14
	Maritime Transport Industry	32,985.45	18.79	0.07
	Land & Other Transport Industry	6,888.02	1.27	0.21
	Aviation Industry	38,594.34	18.35	0.08
	Real Estate Investment Industry	632.61	0.24	0.10
	Energy Industry	48,291.77	6.47	0.29
	Electricity, Power & Water Supply	259,055.88	14.37	0.70
	Public Utility Industry	143,323.80	18.24	0.31
	Fish & Animal Farming & Mining Industry	16,768.55	4.32	0.15
	Other Industries	779.02	0.34	0.09
	Non Carbon-related Industries	183,572.74	0.59	12.08
	Business Loans	Cement Industry	63,668.01	11.64
Food Industry		8,106.28	1.08	0.29
Plastic Industry		54,344.51	7.31	0.29
Chemicals Industry		10,100.70	4.50	0.09
Paper Industry		84,281.46	16.52	0.20

Asset Categories	Industries <sup>(Note 1)</sup>	Scope 1+Scope 2		Percentage of Exposure in Finance Emission (%)	
		Absolute Gross Emission <sup>(Note 2)</sup> (tCO <sub>2</sub> e)	Gross Emission Intensity <sup>(Note 3)</sup> (tCO <sub>2</sub> e/NT\$ Million)		
Business Loans	Stainless Steel Industry	5,543.37	3.57	0.06	
	Automobile Industry	4,846.01	1.12	0.17	
	Real Estate Management Industry	113.03	0.26	0.02	
	Construction Industry	2,085.34	0.13	0.63	
	Maritime transport Industry	57,348.80	16.03	0.14	
	Land & Other Transport Industry	121.16	0.75	0.01	
	Aviation Industry	52,123.88	11.87	0.17	
	Real Estate Investment Industry	109.26	0.03	0.13	
	Energy Industry	346.97	0.55	0.02	
	Electricity, Power & Water Supply	7,145.04	12.79	0.02	
	Public Utility Industry	14,246.68	2.85	0.20	
	Fish & Animal Farming & mining Industry	1,022.65	0.64	0.06	
	Other Industries	24,434.74	13.00	0.07	
	Non Carbon-related Industries	394,787.43	2.86	5.38	
	Commercial real estate	Food Industry	101.89	0.98	0.00
		Chemicals Industry	19.25	0.45	0.00
		Steel and Iron Industry	7.28	0.86	0.00
		Construction Industry	3,982.08	1.08	0.14
		Maritime transport Industry	31.52	0.27	0.00
Project Finance	Real Estate Investment Industry	3,835.09	0.99	0.15	
	Other Industries	1,360.48	1.39	0.04	
	Non Carbon-related Industries	3,350.52	1.06	0.12	
	Electricity, Power & Water supply	42,574.12	59.97	0.03	
	Non Carbon-related Industries <sup>(Note 4)</sup>	-1,741.60	-3.88	0.02	

Note: 1. Using the Group's internal Industries classification to classify Industries.

2. GHG emissions from investment and financing are calculated based on corporate loans, electricity generation project financing, commercial real estate loans, and investment in listed equity and corporate bonds consolidated by the Group, using the Global GHG Accounting and Reporting Standard for the Financial Industry published by the Partnership for Carbon Accounting Financials (PCAF) on December, 2022, as reference. The relevant GHG emission data comes from the external database, self-collection and estimation.

3. The Carbon intensity of each financial asset is calculated based on the methodology recommended by the TCFD guidelines. Formula: Total GHG emissions borne by financial assets (tCO<sub>2</sub>e) / financial asset exposure (NT\$ million) = GHG intensity of financial assets (tCO<sub>2</sub>e / NT\$ million).

4. The GHG Emission of Renewable Project Finance is 0. The negative numbers represent the avoided emission, and the intensity represent the avoided emission intensity.

5. The exposure amount is confidential information and will not be disclosed.