

Fubon 2020 TCFD Report

Task Force on Climate-Related Financial Disclosures

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Message from the Chairman

The global climate crisis has resulted in frequent extreme climate events that have caused huge losses and led governments, international organizations and corporations to confront the impact of climate change on companies' operations and finances. At the beginning of 2021, an unprecedented cold wave in Texas caused major power outages and transportation disruptions because the state failed to winterize its power grid. At the same time, the COVID-19 pandemic has raged around the world, and Taiwan has faced a severe drought, power outages, a seasonal clock thrown out of kilter, delayed "plum" rains, and sudden rainstorms causing urban flash floods. The climate issue is one of humanity's major challenges, and nobody can sit on the sidelines and ignore it, or deal with it alone. We should be more active and work together with Taiwan's academic, industrial and public sectors as well as the international community to address the problem. As Bill Gates said in his new book "How to Avoid a Climate Disaster," solving climate change will be extremely challenging, but if the right actions are taken, it can happen.

When faced with risks, Fubon Financial Holdings adopts strict and pragmatic management approaches to deal with them, and that has been especially true for climate-related risks, backed by the full support of the company's leaders. Fubon signed on to the Equator Principles in 2017, adopted the Task Force on Climate-related Financial Disclosures (TCFD) framework in 2018, and became a TCFD supporter in 2019. In October 2019, Fubon was the only company invited to attend the APEC Finance Ministers' Process in Chile and took part in the "Seminar on Environmental, Social and Governance Factors in Financial Markets." In 2020, the company became a World Economic Forum partner and was selected to the Carbon Disclosure Project's climate change "A List" and Supplier Engagement Leaderboard, the first company in Taiwan's financial sector to receive both CDP honors. This year, Fubon will publish the first TCFD Report issued by a domestic financial institution, reflecting the company's determination to emerge as the benchmark for climate action in the industry.

2021 is Fubon's 60th anniversary, and over the past six decades, we have stood with Taiwan in embracing every challenge and opportunity. Our vision has always transcended building a strong business; creating a common good with this land and people has been just as important. With that in mind, we announced the "Run for Green" program as our main initiative of the year, devised four ESG strategies – **Decarbonization, Digitalization, Empowerment and Connection** – and set 20 ESG targets for 2025 to accelerate our promotion of more sustainable practices.

Fubon Financial Holdings is truly committed to standing out as a leader on sustainability and responsible finance in the face of the momentous challenges posed by climate-related risks. Given that commitment, the entire Fubon organization will proactively support companies making low-carbon transitions, strengthen awareness of responsible investment concepts, and encourage the development of clean energy and insurance products that enhance the resilience of assets. We especially look forward to teaming up with Taiwanese businesses to lead the way on green energy, ecological conservation, health care and electric vehicles and play an important role in the world. As we move into our next 60 years, championing sustainability will be an important mission, with an emphasis on mitigating climate-related risks, serving as a positive force, and achieving new possibilities for the environment, society and the public.



About this Report

The financial sector plays an important role in role in achieving global net zero targets through climate-related financing and investment.

As a leader in the financial system and a mover in the low-carbon capital market, Fubon Financial Holdings has an obligation to fully understand climate-related risks and take appropriate management and mitigation measures. We hope that by setting strategic low-carbon goals and leveraging our financial influence, we can accelerate the sustainable transition of value chains, address the shared goal of mitigating global warming, and support the development of a sustainable economy. Beyond complying with international and regulatory authority norms, we have adopted the Task Force on Climate-related Financial Disclosures framework established by the Financial Stability Board and are issuing Fubon's first TCFD Report.

This report, which covers Fubon Financial Holdings and its major subsidiaries, describes how the Fubon organization identifies and assesses climate-related risks in its operations and the measures taken to make the value chain more resilient to climate change. The report is divided into seven main sections. The introduction touches on climate-related risks and opportunities, the challenges faced by the financial sector, and Fubon's role. Section 2 on "Climate Governance" outlines the responsibilities of Fubon Financial Holdings' board of directors and management and its governance structure. Section 3 on "Climate Finance" describes Fubon's support for international climate initiatives and sustainable investment, financing, and insurance, as well as the company's responsible investment/sustainable credit efforts and insurance management. It also outlines subsidiaries' ESG investment practices and the organization's climate change management guidelines and standards for investing in or pulling investment out of certain industries.

Section 4 on the "Management of Climate-related Risk" covers physical and transition risks, scenario and stress test analyses, the sensitivity of Fubon's investments, financing and insurance underwriting to climate change, the carbon exposure of Fubon's assets, and assessments of suppliers' physical and transition risks. Section 5 on "Climate-related Opportunities" summarizes Fubon's climate-themed investments, natural disaster solutions, agriculture insurance, green energy insurance, sustainability-related insurance products, and Fubon's own green operations. Section 6 on "Targets" and Section 7 on "Looking Ahead" highlight Fubon's setting of strategic low-carbon goals for 2025 and actions taken to achieve those targets along with the "Run for Green" initiative that Fubon hopes will lead it toward its ultimate net zero emissions target.

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We hope that this report will convey to all stakeholders Fubon's commitment to taking climate-change mitigation actions befitting a responsible investor and engaging in sustainable finance practices to counter climate-related risk. The environmental data disclosed in this report has all been verified under the ISO 14064-1, 14001 and 50001 standards and has also been disclosed in the Fubon Financial Holdings' Corporate Social Responsibility Report.



1. Introduction

1.1 Climate Crisis and Opportunities

Climate change is a major source of systematic uncertainty for companies, the environment and society, and preventing climate disasters should be the world’s top priority. The risks induced by climate change can affect a company’s operations or financial performance to varying degrees, with climate-related changes to the physical, regulatory, technological and economic environment all potentially dealing severe blows. Yet, around the globe, pathways to mitigate or adapt to climate change are being explored and are encouraging a move toward a low-carbon economy, providing new opportunities for investors, especially related to the transition to green energy.

1.2 Financial Sector Challenges

The financial sector may not be as directly affected by climate change as other industries, but its critical role as a provider of financing and capital to the broader economy means that if other industries were to be hurt by climate change, the financial sector’s performance would likely take a hit through market linkages, implying risks for investments or credit activity. For a bank’s credit division, for example, the biggest of these climate-related risks could involve loans to clients. If clients are incapable of repaying loans because of the impact of climate-related risks, banks will suffer financially. Consequently, given the threat of climate-related risk and the measures being taken to mitigate it, the financial sector must be more attentive than ever to transitions in demand for different products and services, promote transformation in the energy sector and learn how to embrace innovation and low-carbon opportunities to boost or generate income.



1.3 Fubon's Position

Fubon Financial Holdings (the "Company") has established four main strategies under its "ESG Visioning Project." Of those, the "Decarbonization" strategy is aimed at helping customers transition to sustainable practices, develop low-carbon operating models, and improve their ESG performance through investments, loans, products, and specialized services that encourage sustainability. Under this strategy, Fubon uses its financial influence to accelerate value chains' transition to more sustainable practices and to contribute to the common goal of mitigating global warming, while also seeking out investment opportunities in the clean energy era as a new driver of business growth.

Fubon continues to put a premium on strengthening its climate governance mechanism, developing cohesive strategies and management capabilities that can successfully guide the business into the future, and assessing risk and broadening its vision to guide adjustments of existing portfolios. Given the vital importance of the risks and opportunities brought by climate change in the future, Fubon has steadily reduced the climate exposure of its portfolios and adjusted their risk profiles, hoping ultimately to align all operating activities with the targets of the Paris Agreement. Meanwhile, new markets are emerging because more climate-related information is being disclosed. If an investee company is a high-carbon emitter, Fubon, as both an asset owner and manager, must be sure of the related short-, medium-, and long-term risks and opportunities related to the investment so that it can make an informed decision on how to protect or reallocate its capital. Understanding climate-related risks and opportunities will also strengthen Fubon's interaction with clients and better enable it to provide products that support sustainability and help clients transition to a low-carbon future.



2. Climate Governance

2.1 Governance Framework

The Corporate Governance and Sustainability Committee under Fubon Financial Holdings’ Board of Directors oversees the implementation and assesses the execution of corporate social responsibility and sustainability tasks, including issues related to climate governance. An ESG Task Force has been set up under the Corporate Governance and Sustainability Committee that is led by the president of the Company. The Task Force’s Responsible Finance Team compiles information on the climate-related risk and opportunity action plans and results of the Company and its subsidiaries and reports its findings every six months, first to the Corporate Governance and Sustainability Committee and then to the Board of Directors.

ESG indicators are included in the performance evaluation policy covering the Company’s board of directors and functional committees, and the board’s self-evaluations also cover such factors as risk assessments of internal controls and engagement in sustainability initiatives. At the same time, the performance evaluations of the chairmen and presidents of Fubon Financial Holdings and its subsidiaries and of other top subsidiary managers whose duties and responsibilities are related to ESG promotion or execution include ESG goals to ensure that ESG initiatives are carried out.

2.2 Climate Responsibilities of Top Management

The Risk Management Committee under the Company’s Board of Directors is led by a convener (the president) appointed by the chairman and also consists of a chief secretary (the chief risk officer) and several members (the chief risk management officers of each subsidiary). It is responsible for overseeing the climate risk management of the Company and its subsidiaries and for reviewing, guiding and coordinating their climate risk management practices. The convener of the ESG Task Force appoints the head of the Risk Management Division as the leader of the Responsible Finance Team, and the Risk Management Division plans and promotes climate-related financial disclosure projects and coordinates and oversees subsidiaries’ handling of climate management issues. Those efforts are incorporated into the quarterly risk management report, which is presented to the Risk Management Committee, Audit Committee, and Board of Directors.

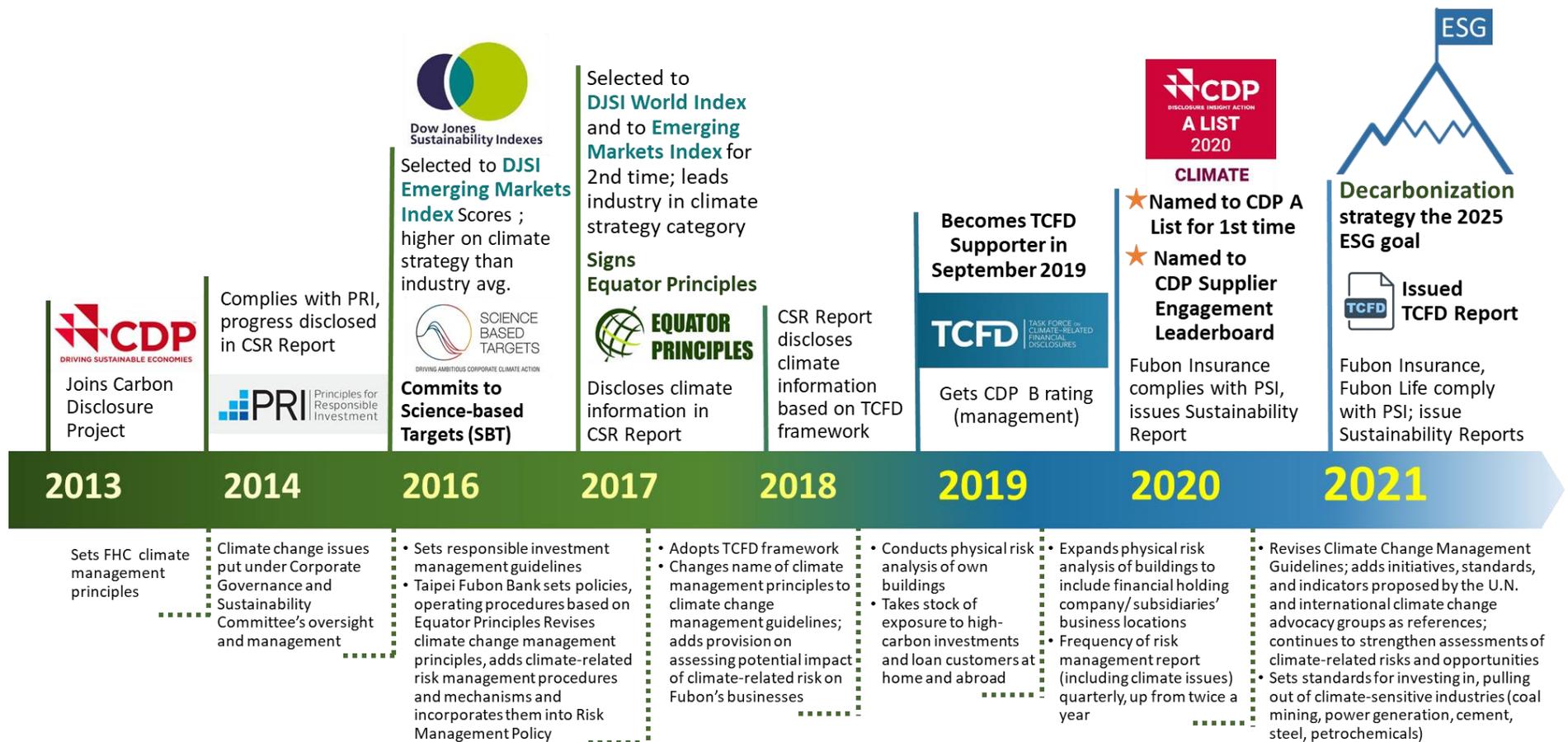


3. Climate Finance

3.1 Responding to International Initiatives

Fubon Financial Holdings adopted the TCFD risk management framework in 2018, became a TCFD supporter in September 2019, and made both the **CDP's Climate Change A List** and **Supplier Engagement Leaderboard** in 2020. In aligning itself with global sustainability trends, it continues to support and voluntarily comply with international sustainability initiatives. At the same time, Fubon closely monitors the impact of environmental and social change on corporate operations, and participates in influential trade associations and seminars to have a voice on environmental, social, and business and trade issues.

● Fubon Climate Management Timeline



3.2 Sustainable Investment, Financing, and Insurance

Sustainability is a prime consideration in the businesses and operations of Fubon Financial Holdings and its subsidiaries. They incorporate ESG risk factors into their investment, underwriting and claims assessments; promote governance cultures by operating ethically, being open and transparent, and complying with applicable laws; and create shared social and environmental values with customers as part of their CSR commitments. The Company has taken several steps to encourage more balanced corporate, environmental and social development, including promoting the goal through capital markets, strengthening information disclosure, and aligning itself with global sustainability initiatives and international standards. Sustainability-related management mechanisms are developed and constantly reviewed, and transparent communication channels have been opened with stakeholders. Efforts are also made to solidify the operations of the group’s companies and instill corporate governance concepts through transparent financial and business management approaches.

We strongly support corporate clients that intend to use funds to transition to clean energy, and provide those clients preferential financial products or services that can benefit the environment and society. For companies and industries with questionable practices, however, Fubon established a clear list of blacklisted industries in 2021 and moved to strengthen due diligence and assessments of companies mired in controversy.

3.2.1 Responsible Investment Management

Each subsidiary complies with the Fubon Financial Holding Co., Ltd. and Subsidiary Responsible Investment Management Guidelines in setting or revising its own related internal management policies and rules, adhering to the six Principles of Responsible Investment(PRI), and devising action plans. Before and after an investment is made, an ESG checklist and ESG assessment indicators are used to identify, assess and measure the investment’s sustainability risk, and monitoring indicators for ESG-sensitive industries have been devised to strengthen the responsible investment system and maintain steady investment returns. Also, all major Fubon subsidiaries have signed on to the Stewardship Principles for Institutional Investors, and they have incorporated ESG issues into their ownership policies and practices and actively engage in shareholder activism.

● **Each Fubon Subsidiary’s ESG Investment Actions**

Asset Types	ESG Investment Actions	
<ul style="list-style-type: none"> ✓ Listed equity ✓ Fixed income ✓ Private equity ✓ Infrastructure ✓ Derivatives and alternative investments, and property 	Fubon Life Fubon Insurance Fubon Financial Holding Venture Capital	Each subsidiary establishes concrete ESG assessment protocols for both before and after investments are made based on the industry an investment is in, and the products and practices of the company invested in. These protocols cover all internal investment positions and also cover the ESG practices of discretionary investment institutions. Fubon Life has established responsible investment procedures for foreign fixed income products that require its people to comply with PRI norms when investing in foreign fixed income products.
	Taipei Fubon Bank	Taipei Fubon Bank has set responsible investment rules within its sustainability risk management framework. They stipulate that a Sustainability Risk Assessment Checklist (for securities investments and transactions) with ESG indicators be used to identify, assess and gauge any securities investment or transaction’s sustainability risk. These reviews must follow standard procedures to avoid underwriting industries or companies that have serious adverse effects on environmental and social (including human rights) sustainability.
	Fubon Asset Management	Fubon Asset Management incorporates ESG factors into its investment procedures. Before making an investment in any stock, it analyzes the industry involved and the company’s outlook, profit forecasts, financial situation, and ESG practices. It also maintains a blacklist that takes into consideration a company’s financial statements, the shareholdings of board directors and supervisors, and ESG issues. If a stock is put on the blacklist, that company cannot be an investment target. If an investment has already been made in a stock put on the list, it must be divested within a specific time frame.

3.2.2 Sustainability Risk Management for Lending

■ Sustainability Risk Management Procedures for Lending



■ Sustainability Risk Management Procedures for Lending

Checks for high-risk ESG factors	Business activity or behavior that has significant adverse impact on environmental and social sustainability is treated as a high-risk ESG factor. A checklist has been established to help business departments identify such factors. If a potential borrower’s main business activity involves any high-risk activity on the checklist, the bank should decline the customer’s business.
Advanced ESG checks	Detailed ESG credit checks covering five broad areas – checks for environmental measures/penalties, climate change risk assessments, major human rights risk assessments, CSR checks, and Equator Principles checks – have been established to further assess each potential borrower’s ESG risk and gauge its potential impact on the Bank’s credit risk assets. These steps are taken to inform the appropriate risk response option (accepting the risk – loan approval; mitigating risk – conditional approval; and avoiding risk – declining the application).
Equator Principle guidelines	Business departments must review the Equator Principles and related regulations with customers before they apply for financing, confirm that customers are willing to follow them, and help clients comply with the Equator Principles before applying and while the financing is in effect. If a client is unable to fully comply, their application for credit should be turned down.
Credit monitoring	Clients whose loan applications have been approved or conditionally approved continue to be monitored for major ESG risk events after the loan has been disbursed. In addition, if the Equator Principles apply to a credit case, and the case’s environmental and social risk is classified as Category A (high risk) or Category B (medium risk), the client must commit to comply with the Equator Principles and that commitment must be included in the loan contract, as stipulated in the Equator Principles. Regular compliance checks are also conducted.
Internal training	Taipei Fubon Bank incorporates its sustainability risk management framework and the Equator Principles into manpower development programs and management associate training courses.

3.2.3 Sustainable Insurance Management

Subsidiary Fubon Insurance complies with the Principles for Sustainable Insurance (PSI) and offers a range of sustainability-themed products, including eco-friendly vehicle insurance, usage-based auto insurance, environmental pollution liability insurance and green energy insurance. Its line of agriculture insurance includes crop and aquaculture insurance and coverage of agriculture facilities against typhoon and flood damage. Beyond supporting green energy development, Fubon Insurance has followed international trends by getting less involved in insuring coal-related projects and property. To give companies time to go green and reduce their carbon footprints, however, it has taken the approach of gradually reducing the coverage it underwrites for each policy, and helps clients with insurance planning for their transition to green energy.

3.3 Climate Change Management Guidelines

Fubon Financial Holdings established “Fubon Financial Holding Co., Ltd. and Subsidiaries Climate Change Management Guidelines” to guide Fubon’s efforts to meet carbon reduction goals set in the Paris Agreement and the United Nations’ sustainability development goals (SDGs) and mitigate the potentially major impact of climate change on the company’s operations. The guidelines require that climate change factors be incorporated into Fubon companies’ daily operations and strategic planning and decision-making processes; that initiatives, standards, and indicators proposed by the United Nations and international climate change advocacy groups be referred to; and that potential climate-related risks and opportunities be regularly identified and assessed. Other provisions require that Fubon companies review risk response mechanisms that deal with the potential impact of financing or investing in companies that are highly sensitive to climate change and devise short-, medium-, and long-term risk management measures. They also urge Fubon companies to not only be eco-friendly internally but also promote sustainable finance and low-carbon investment to foster environmental and economic sustainability.

- Climate-related risk factors currently used in external assessments

Exposure	Total financial exposure including outstanding loans, total investment and asset value
Hazard	Impact of the floods, mudslides or landslides occurring
Vulnerability	Sectors that have been recognized by domestic and international institutions as being climate sensitive

3.4 Standards for Investing In/Pulling Investment Out of Specific Industries

Fubon incorporates ESG risk factors into investment assessments, and sustains its governance culture by operating ethically, being open and transparent, and complying with applicable laws, while creating shared values with society, the environment and customers as part of its CSR commitment. To effectively assess and manage climate-related risk, Fubon has established the following principles for handling investment and loan opportunities:

ESG-sensitive industries and types of transactions that cannot be underwritten (starting in 2021)	Power plant	(1) New financing of or investment in power plants with more than 50% of their power generated from coal no longer allowed (2) No financing allowed for new coal-fired power plants
	Coal mining	No additional loans allowed to be made to companies with 100% revenue from coal
	Cement industry	(1) No new financing allowed for open-pit mining operations (2) No new financing allowed for cement companies that produce cement clinker in a rotary kiln
	Petrochemicals	(1) No new financing allowed for overseas customers' oil exploration and drilling operations (2) No new financing allowed for overseas customers' vertical integration (including oil exploration/drilling/refining and product sales) (3) No new financing allowed for overseas customers' oil field services and pipelines (4) No new financing allowed for overseas customers' refineries
	Steel industry	(1) No new financing allowed for a new blast furnace for a steel plant (2) No new financing allowed for capital expenditures to expand steel producing capacity in facilities where blast furnaces account for 50% or more of capacity
Types of companies or industries for which due diligence and assessments should be strengthened	Companies with major environmental violations, human rights violations (forced labor or child labor issues), occupational safety or food safety problems, labor-management disputes, or corporate governance issues that have been reported in the news, and where the situation is serious and no tangible plans to address the problem have been proposed	
	Companies that have violated AML/CFT regulations or where another serious violation occurred and no tangible plans to address the problem have been proposed	
	Highly controversial industries involving arms trafficking, gambling, tobacco and liquor production, the sex trade, the killing of wild animals or destruction of their habitats, or the production of internationally banned or restricted chemicals, drugs, pesticides, herbicides or radioactive materials	
Active support	Companies that should be actively supported to promote and achieve the United Nations SDGs; products and services should be provided to these companies to help strengthen environmental and social sustainability.	

Fubon closely monitors the climate policies and solutions of different sectors at home and abroad and continuously adjusts related management mechanisms. It promotes transparency and the disclosure of information through convenient communication channels with stakeholders and a transparent financial and business management approach that solidifies group operations and instills corporate governance concepts throughout the organization. We hope that every dollar invested or loaned by the parent company and its subsidiaries benefits the environment and society. Aside from assessing whether to end investments in or revoke loans to potentially bad actors, we work proactively with suppliers, clients and investors to help them transition to more eco-friendly practices and use the funds we provide to achieve sustainability goals.

4. Management of Climate-related Risk

4.1 Physical Risks

The growing impact of climate change could affect the economic performance and productivity of companies in which Fubon invests, and extreme events can lead to the destruction of those companies' fixed assets, interrupt their operations, impair production and harm asset valuations. Fubon mainly looks at two types of scenarios to assess physical risks faced by these companies, one involving long-term climate changes and the other involving the impact generated by changes in extreme weather events. Investment portfolios have different vulnerabilities to climate risks, and clients and investment targets have different risk profiles and disaster potential characteristics depending on their geographical locations.

4.2 Transition Risks

At present, governments around the world are considering various ways to curb carbon emissions, including through carbon taxes, subsidies and strict regulations. These policies that encourage a transition to lower carbon operations could affect the costs and revenues of companies in which Fubon has invested, and low-carbon technology thresholds and changes in customer behavior could result in lower demand for a company's products or higher capital expenditures. Given these trends, analyzing transition risk can guide Fubon's investment decisions, whether hedging against risks or helping identify potential low-carbon opportunities. Fubon primarily considers statutory factors when assessing how industries or investment targets will be affected by different low-carbon regulations.

4.3 Scenario Analysis

A systematic assessment process based on climate scenario analysis can strengthen Fubon's strategic planning and risk responses in coping with climate change. We use scenario analysis to identify external environmental indicators and when the environment will reach a specific scenario, providing a basis for making corresponding adjustments to strategies and financial plans. It should be noted that these are not precise climate forecasts with low margins of error, but the results can support assessments of the potential commercial, strategic and financial impacts of climate change, and provide information that can be applied to strategic planning and assessments of investment and loan portfolios.

When Fubon assesses climate-related risks, it considers two main categories of risks. The first are risks caused by changes in physical climate parameters (RCP 2.6, 4.5, 6.0 and 8.5). These physical climate risks can influence the performance and productivity of suppliers, clients and investment targets at any time. The second are transition risks associated with meeting legally mandated or carbon reduction goals (1.5°C and NDCs). Investment or financing portfolios have different vulnerabilities to climate risks, and investment targets, loan clients, insurance clients and suppliers have different risk profiles based on their geographical locations. Transition risk can easily result in increases in companies' operating costs, restrictions on sales of certain products, and even a loss in competitiveness.

	Physical Risk Scenarios				Transition Risk Scenarios	
	RCP2.6	RCP4.5	RCP6.0	RCP8.5	1.5°C	NDC
Time Frame	2021 - 2100	2021 - 2100	2021 - 2100	2021 - 2100	2021 - 2050	2021 - 2050
Geography	Taiwan					
Assumed Parameters	Average annual temperature change -0.31°C to +2.27°C, average daily change in rainfall -40mm to +62mm	Average annual temperature change +0.44°C to +3.19°C, average daily change in rainfall -42mm to +88mm	Average annual temperature change +0.95°C to +3.45°C, average daily change in rainfall -46mm to +72mm	Average annual temperature change +1.66°C to +4.94°C, average daily change in rainfall -52mm to +101mm	Average annual emissions reduction rate 4.2%	With emissions in 2005 the baseline, 20% reduction in emissions by 2030, 50% reduction in emissions by 2050

Note 1: Sources of 1.5°C parameter: 2020 SBTi, Target Validation Protocol

Note 2: Source of NDC parameter: Taiwan Intended Nationally Determined Contribution to emissions reduction

Note 3: Source of assumed parameters for physical risk scenarios: Taiwan Climate Change Projection Information and Adaptation Knowledge Platform

4.3.1 Fubon-owned Locations

To understand the potential impact of physical risks on its own buildings and service locations, Fubon analyzed the potential flooding of the offices and branches of Fubon Financial Holdings and its main subsidiaries based on 24-hour precipitation events expected to occur every 50 years and 100 years. The assessment covered a total of 438 office buildings and service locations in Taiwan, and the worst-case scenario, a once in 100 years flood scenario, was used to determine the physical risk of flooding. The analysis found that 22 locations would face flood waters more than 1 meter depth, while the remaining 95% of locations would not see any flooding or flooding less than 1 meter deep. The parent company and its subsidiaries have established contingency measures (including a typhoon flooding protection plan) to cope with various disasters (including typhoons and flooding), and they were found to be adequate to deal with and mitigate the potential adverse impact of a 100-year flood event.

Assessment Scope	No.	Low No flooding/flooding < 1m depth	Medium Flooding 1-2m depth	High Flooding > 2m depth
FHC and subsidiaries (main office buildings)	8	8	0	0
Taipei Fubon Bank (branches)	134	125	6	3
Fubon Life (HQ/service centers/service offices)	184	177	5	2
Fubon Securities (branches)	38	34	4	0
Fubon Insurance (HQ/branches/service offices)	74	72	2	0
Total	438	416	17	5

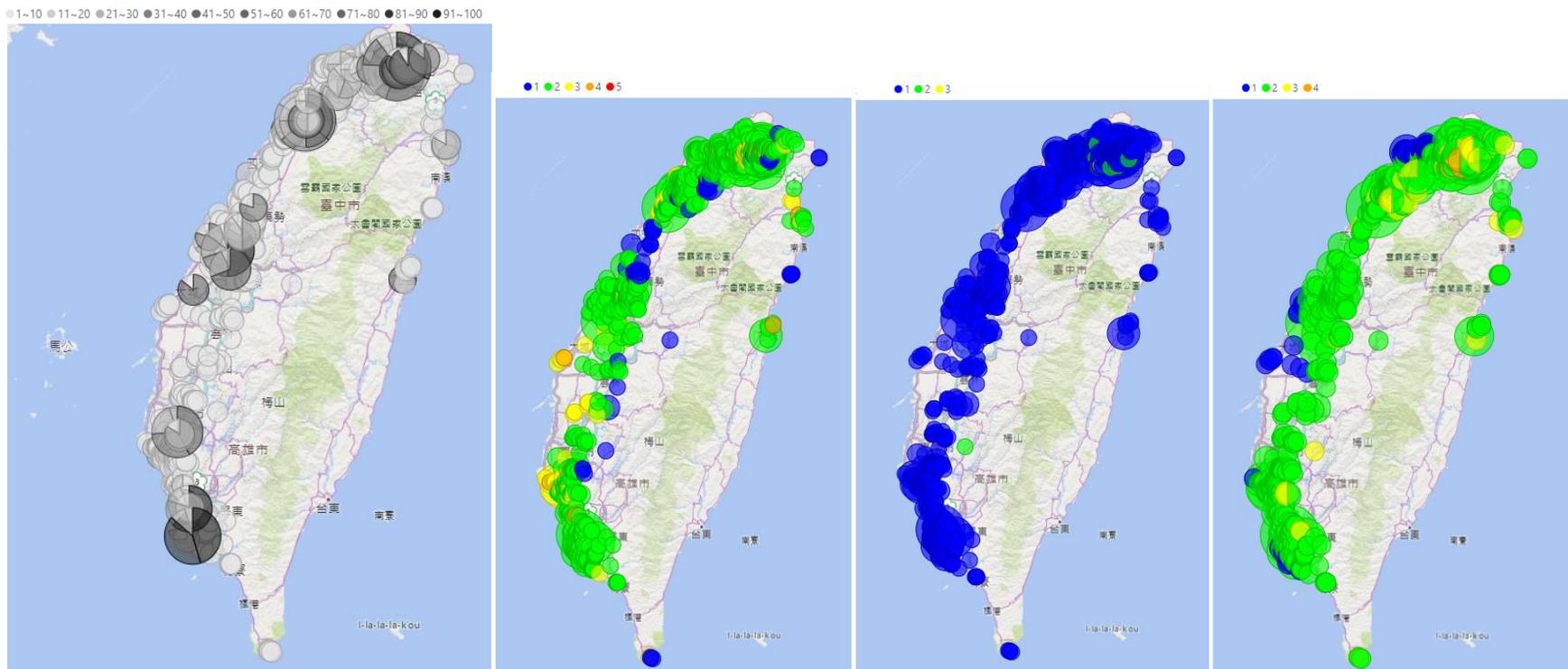
Note 1: Data for flood potential analysis from the Ministry of Economic Affairs, Water Resources Agency

4.3.2 Identifying the Climate Sensitivity of Investment, Loan and Insurance Positions

There are three major factors that determine Fubon’s sensitivity to climate change through its clients and investments: exposure, hazard, and vulnerability. The main considerations for gauging exposure to clients or companies invested in are outstanding loans, total investment, asset value, and retained underwriting liability, and the exposure is then assigned a weighting based on whether those quantified amounts are high or low. Considerations related to hazards mainly involve the potential for natural disasters such as flooding, debris flow and landslides triggered by climate change to affect clients or investments, and these can be assessed using a two-axis matrix plotting time on one axis and scale on the other. Vulnerability is mainly based on industries rated by the TCFD frameworks and CDP classification as being relatively vulnerable to climate change, such as the financial, energy, transportation, materials, and construction sectors. Also included in the vulnerability assessment is statutory pressure that makes the reporting of emissions inventories compulsory. These three factors are differentiated by their relative importance and given weighted scores depending on the nature of a client’s business. The higher the score for sensitivity to climate-related risk, the higher the sensitivity to climate change. Fubon identifies the materiality of the climate sensitivity based on the type of business being considered, be it investments, financing, mortgages or P&C insurance underwriting.



To more clearly visualize these risks, Fubon has created heat maps plotting the physical risks – level 1-15 hazards (flooding, mudslides and landslides), vulnerabilities (levels 0-2), and level 1-10 exposure (exposure amount) – of each of its investments and loans in Taiwan and the physical risks – level 1-15 hazards (flooding, mudslides and landslides) and level 1-10 exposure (exposure amount) – of locations in Taiwan covered by Fubon Insurance. If in looking at the overall climate sensitivity (risk) results we exclude the exposure amount factor and focus only on natural disaster hazards among the physical risks, the highest hazard level identified was 8, indicating that Fubon does not face high physical risks.



Note 1: Because of the large number of locations analyzed, these are schematic diagrams and mortgages have been excluded.

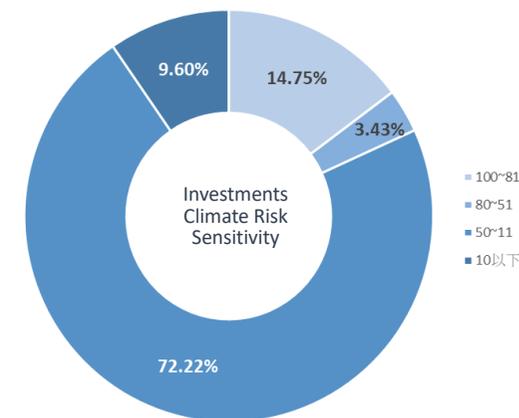
Note 2: The size of the bubbles on the heat maps reflects exposure amounts; sensitivity is the sum total of exposure, vulnerability and hazards.

Note 3: The location of the bubbles is the registered address where a company invested in or loan client operates or the address of the property being insured.

- Investments:** Climate sensitivity assessments for investments were done for domestic investments by subsidiaries as of the end of 2020 that exceeded NT\$100 million, while overseas investments or those with unknown locations were excluded. Of the 217 investments that met the criteria, the highest climate sensitivity score was 100, at the upper boundary of the low sensitivity category. Eleven cases scored in the 51-100 range, and these accounted for 18.18% of the total amount invested in the 217 investments assessed. The other investments had climate risk sensitivity scores of 50 or below.

Climate Sensitivity	Climate Risk Sensitivity Score ¹ (Exposure*Vulnerability*Hazard)	No. of Cases	Investment Amount ² (% of total)
High	201-300	0	0.00%
Medium	101-200	0	0.00%
Low	81-100	7	14.75%
	51-80	4	3.43%
	11-50	76	72.22%
	10 or below	130	9.60%
Total		217	100.00%

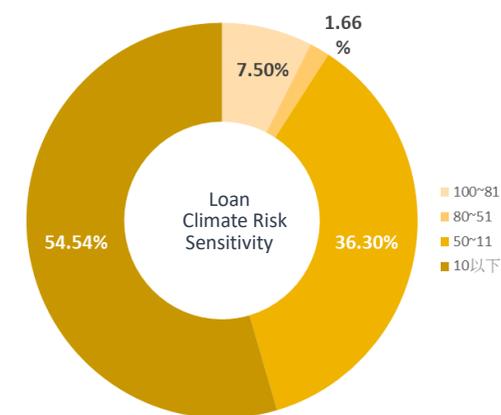
Note 1: Investment exposure measured on a scale of 1-10, vulnerability measured on a scale of 0-2 and hazard measured on a scale of 3-15; highest climate risk sensitivity score is 300.
 Note 2: Figures based on investment amount as of the end of 2020; does not include government bonds, ETFs, and funds, and does not include cases in overseas areas or those with unclear addresses.



- Loan clients:** In terms of financing, climate sensitivity assessments were done for 709 Taipei Fubon Bank domestic loans exceeding NT\$100 million that were outstanding as of the end of 2020. In this assessment, the highest climate risk sensitivity score was 100, at the upper boundary of the low sensitivity category. Five cases scored in the 51-100 range, and these accounted for 9.16% of all outstanding loans assessed. All other loans had climate risk sensitivity scores of 50 or below.

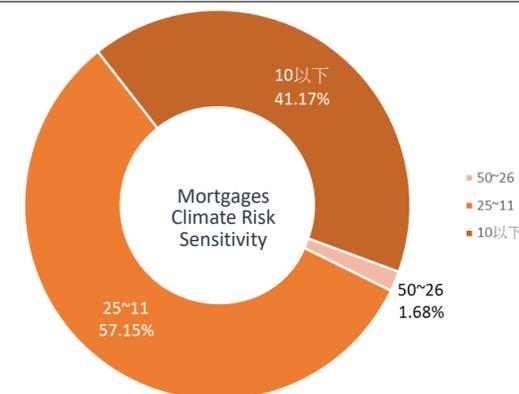
Climate Sensitivity	Climate Risk Sensitivity Score ¹ (Exposure*Vulnerability*Hazard)	No. of Cases	Outstanding Loan Amount ² (% of total)
High	201-300	0	0.00%
Medium	101-200	0	0.00%
Low	81-100	1	7.50%
	51-80	4	1.66%
	11-50	163	36.30%
	10 or below	541	54.54%
Total		709	100.00%

Note 1: Investment exposure measured on a scale of 1-10, vulnerability measured on a scale of 0-2 and hazard measured on a scale of 3-15; highest climate risk sensitivity score is 300.
 Note 2: Figures based on investment amount as of the end of 2020; does not include government bonds, ETFs, and funds, and does not include cases in overseas areas or those with unclear addresses.



- **Mortgages:** Climate sensitivity assessments of mortgages focused on mortgages made by Taipei Fubon Bank with loan-to-value ratios higher than 60%, or 41,930 mortgages in all. In this assessment, the highest climate risk sensitivity score was 40, in the medium sensitivity category. A total of 195 mortgages scored in the 26-40 medium sensitivity range, and these mortgages accounted for 1.68% of the value of all of the assessed mortgages as of the end of 2020. All other mortgages had climate risk sensitivity scores of 25 or below.

Climate Sensitivity	Climate Risk Sensitivity Score ¹ (Exposure*Hazard)	No. of Cases	Outstanding Mortgage Amount ² (% of total)
High	51-75	0	0.00%
Medium	26-51	195	1.68%
Low	11-25	13,613	57.15%
	10 or below	28,122	41.17%
Total		41,930	100.00%

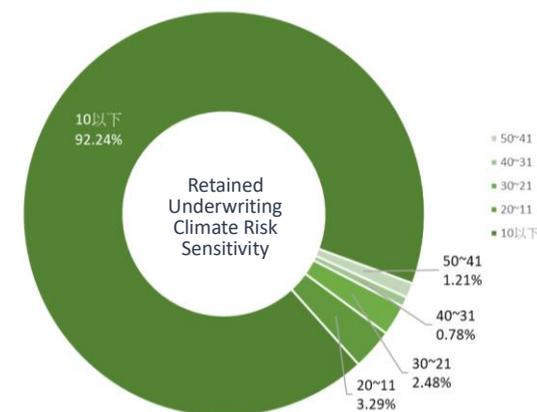


Note 1: Mortgage exposure measured on a scale of 1-5, hazard measured on a scale of 3-15; highest climate risk sensitivity score is 75.

Note 2: Figures based on outstanding mortgages as of the end of 2020

- **Retained Underwriting:** Cases used to assess Fubon Insurance were those in which the company had invested NT\$100 million or underwrote insurance with retained coverage of at least NT\$100 million as of the end of 2020, not including investments or underwriting cases in overseas areas or those with unclear addresses. A total of 1,096 underwriting cases were assessed, and the highest climate risk sensitivity score in the assessment was 48, in the low sensitivity category.

Climate Sensitivity	Climate Risk Sensitivity Score ¹ (Exposure*Vulnerability*Hazard)	No. of Cases	Retained Underwriting Amount ² (% of total)
High	201-300	0	0.00%
Medium	101-200	0	0.00%
Low	51-100	0	0.00%
	41-50	1	1.21%
	31-40	1	0.78%
	21-30	5	2.48%
	11-20	24	3.29%
	10 or below	1,065	92.24%
Total		1,096	100.00%

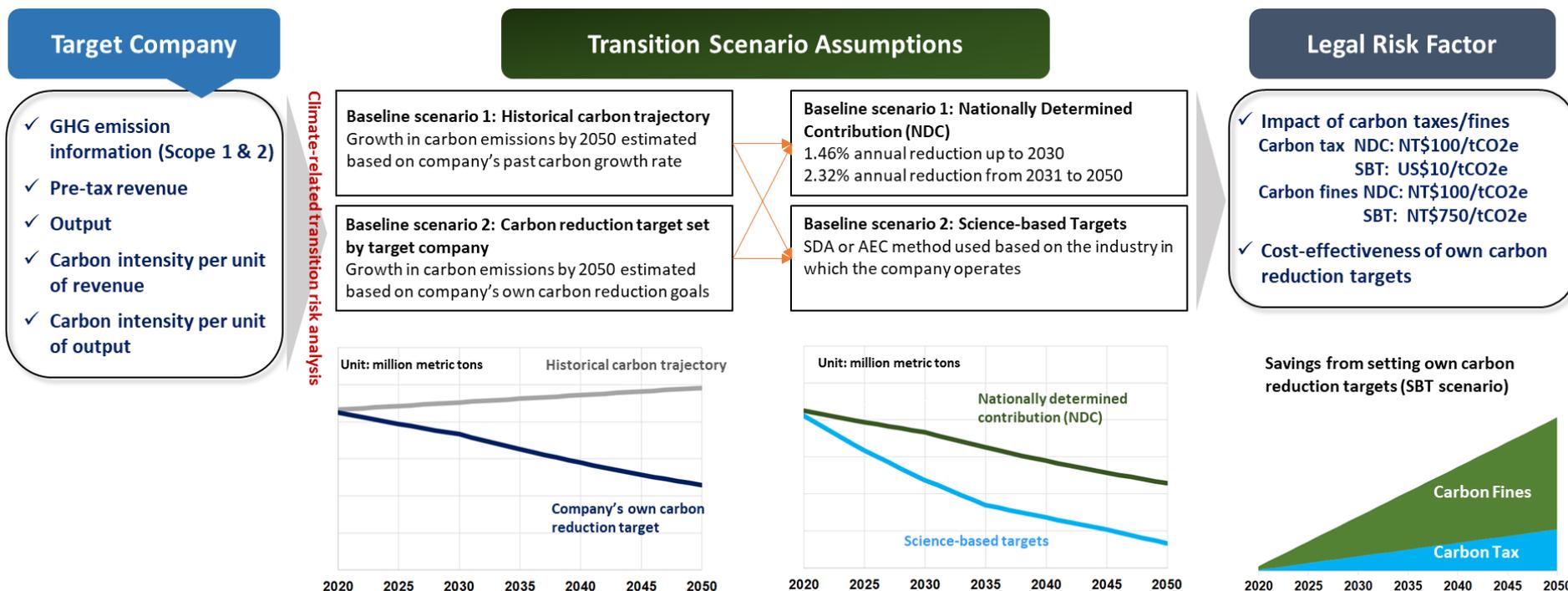


Note 1: Underwriting exposure measured on a scale of 1-10, vulnerability measured on a scale of 0-2 and hazard measured on a scale of 3-15; highest climate risk sensitivity score is 300.

Note 2: Figures based on Fubon Insurance's retained coverage as of the end of 2020

● **Climate-sensitive Industries**

Fubon’s systematic climate sensitivity analysis found its investments and loan clients to have low sensitivity to climate change. Given the huge impact transition risks could have on carbon-intensive industries, however, Fubon decided to take an in-depth look at all clients or companies invested in with climate risk sensitivity scores over 51 in the carbon-intensive power generation, cement, petrochemical, steel, plastics, and paper industries. Then, based on the overall exposure of subsidiaries to those companies, it selected three of them on which to conduct scenario analyses for transition risks. The results were compiled in a report that was presented to investment and credit departments as a reference for the strategic planning and assessment of investments and loans in the future. A description of the analysis scenarios and assumptions and their potential financial impact are shown in the charts below.



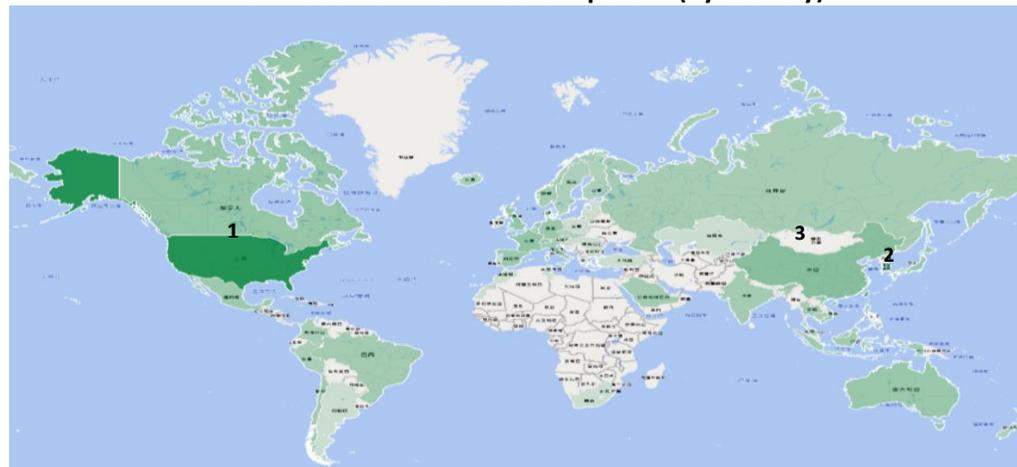
Financial impact under different scenarios	Company A		Company B		Company C							
	Carbon Tax NDC	Carbon Fine SBT	Carbon Tax NDC	Carbon Fine SBT	Carbon Tax NDC	Carbon Fine SBT						
Baseline Scenario 1: No change in carbon trajectory	24.59	68.85	13.13	159.7	5.97	16.71	2.79	34.68	1.43	3.99	0.67	10
Baseline Scenario 2: Carbon reduction target set by Fubon	11.3	31.65	0.15	60.04	5.17	14.48	2	28.72	1.09	3.04	0.33	7.44
Savings from meeting internal carbon reduction goals	13.29	37.2	12.98	99.65	0.8	2.23	0.79	5.96	0.34	0.95	0.34	2.56

Unit: NT\$100 million

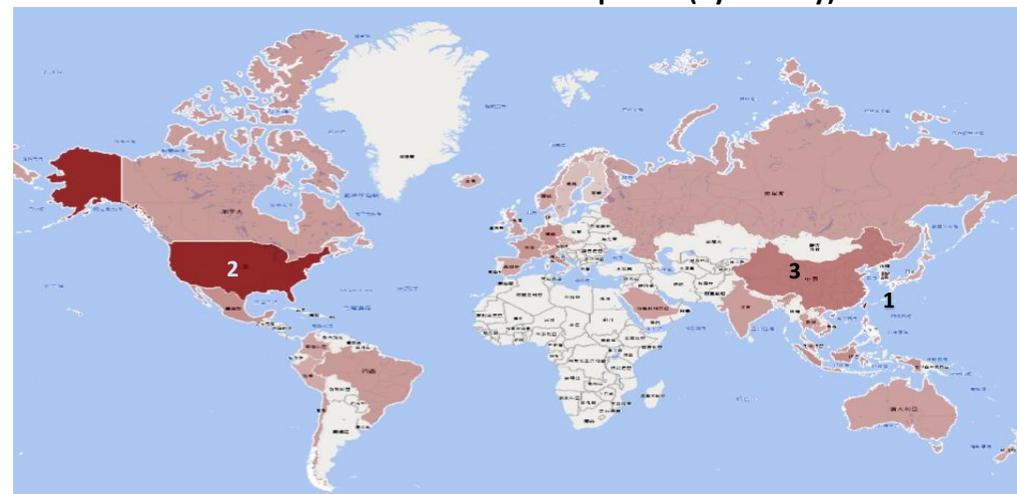
● **Exposure to Carbon Assets**

Country	Exposure Amount Ranking	Share of Total Exposure %	Carbon Emissions Ranking	Share of Total Emissions%
USA	1	34.60%	2	29.54%
Taiwan	2	26.59%	1	30.48%
China	3	6.27%	3	8.37%
France	4	3.53%	8	2.30%
U.K.	5	3.51%		0.63%
Canada	6	2.66%		1.10%
Other	7	2.34%		0.99%
Japan	8	2.13%		0.14%
Australia	9	2.06%		0.51%
Germany	10	1.88%	7	3.19%
Netherlands		1.81%		0.26%
Hong Kong		1.68%	4	5.07%
Switzerland		1.34%		0.50%
Spain		1.28%		0.04%
Vietnam		1.26%	10	1.29%
Mexico		0.97%	6	3.44%
Belgium		0.94%		0.17%
Indonesia		0.80%	5	4.17%
Chile		0.56%		1.01%
Singapore		0.46%		0.13%
Malaysia		0.45%		0.54%
South Korea		0.41%		0.55%
Italy		0.38%		0.58%
Brazil		0.37%	9	1.30%

Distribution of Fubon Asset Exposure (by country)



Distribution of Fubon Carbon Exposure (by country)



*Calculation of carbon emissions based on the environmentally-extended input-output (EEIO) method recommended by PCAF

Note1: The asset exposure shown in this table covers the value of investments, loans, and P&C insurance as of the end of 2020 underwritten by subsidiaries Fubon Life, Fubon Insurance, Taipei Fubon Bank, Fubon Securities, and Fubon Asset Management.

Note2: Countries where Fubon’s asset exposure amount accounts for less than 0.3724% and where carbon emissions rank outside Fubon’s top 10 are not included in this table.

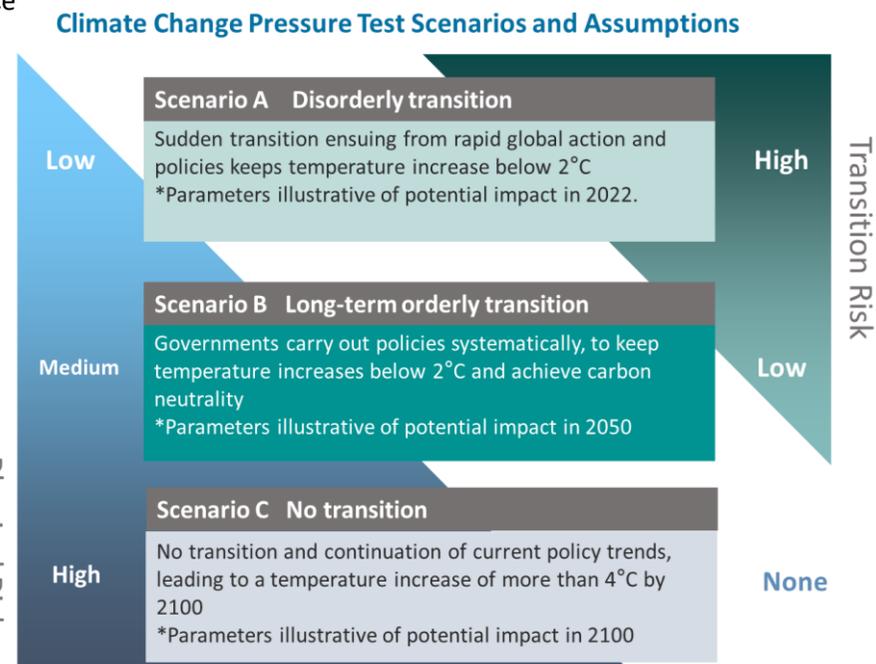
● **Stress Test Analysis**

■ **Results of climate stress test on investments**

The Bank of England (BOE) has proposed a climate stress test for banks and insurance companies to assess whether these financial service institutions can withstand the impact of climate change on their assets and business models. It was the first of its kind in industrialized Western countries, and Fubon adopted the BOE’s A, B, and C stress test scenarios for transition risk and physical risks to test the financial assets of the parent company and subsidiaries. Of the stress tests done under the three different scenarios, the impact of physical risks under scenario C (no transition) was the most severe.

	Transition Risk	Physical Risk
Scenario A	●	●
Scenario B	●	●
Scenario C	●	●

Explanation: The A, B, and C stress test scenario results reflect the level of the Company’s total equity affected. A green light indicates an impact of 10% or less of total equity, a yellow light reflects an impact of over 10% to 20% of total equity, and a red light indicates an impact of over 20%. Fubon Financial Holdings had consolidated total equity of NT\$776.78 billion as of the end of 2020.



■ **Results of climate stress tests on outstanding loans**

Taipei Fubon Bank referred to the list of high-carbon companies in the Taiwan GHG Emissions Registry and its data on carbon emissions to determine its carbon-related exposure to loan clients as of the end of 2020. Using an internal carbon pricing model, it conducted stress tests based on four different carbon fee (unit price of carbon*carbon emissions) scenarios to determine if they would affect clients’ credit ratings. The analysis found that under the highest carbon fee scenario of NT\$1,500/tCO2, one client would see its credit rating fall three tiers, which would not have much of an effect on the bank.

Rating Change ("-" indicates a downgrade)	Carbon Fee Scenarios			
	NT\$120 (US\$4)	NT\$300 (US\$10)	NT\$870 (US\$29)	NT\$1,500 (US\$50)
-1	2 clients	3 clients	3 clients	6 clients
-2	0 clients	2 clients	4 clients	3 clients
-3	0 clients	0 clients	0 clients	1 client

4.3.3 Suppliers

■ Supplier physical risk assessment:

Fubon has conducted assessments and pressure tests related to the potential hazards of natural disasters, including flooding, mudslides and landslides, on the places of business of 1,319 suppliers. They were done to better understand changes in physical climate parameters caused by climate change, the direct impact they could have on supplier operations and, by extension, the indirect impact they could have on Fubon.

RCP 4.5 Scenario (Baseline Scenario)			RCP 6.0 Scenario			RCP 8.5 Scenario		
Natural disaster potential hazard level (flooding*mudslides*landslides)	No. of suppliers	Share	Natural disaster potential hazard level (flooding*mudslides*landslides)	No. of suppliers	Share	Natural disaster potential hazard level (flooding*mudslides*landslides)	No. of suppliers	Share
Level 1-25 (Low hazard)	1,319	100.00%	Level 1-25 (Low hazard)	1,282	97.19%	Level 1-25 (Low hazard)	0	0.00%
Level 26-50 (Medium hazard)	0	0.00%	Level 26-50 (Medium hazard)	37	2.81%	Level 26-50 (Medium hazard)	1,087	82.41%
Level 51-75 (High hazard)	0	0.00%	Level 51-75 (High hazard)	0	0.00%	Level 51-75 (High hazard)	232	17.59%
<ul style="list-style-type: none"> Scenario conditions: Taiwan’s temperature 1.3°C to 1.8°C higher by 2100. Potential hazard level of natural disasters for the places of business of all 1,319 existing suppliers is below 25, considered to be low hazard 			<ul style="list-style-type: none"> Scenario conditions: Taiwan’s temperature 1.7°C to 2.1°C higher by 2100; assumption is that the hazard magnitude of floods and mudslides is of one order of magnitude higher than under the RCP 4.5 scenario. Under this scenario, the places of business of 1,282 of the 1,319 suppliers (97.2%) had low potential hazard levels (under 25); 37, or 2.81%, had medium hazard levels (26-50); and none had high hazard levels. The 37 suppliers with medium hazard levels account for 2.46% of all purchases, and their risk can be managed by monitoring the stability of their supply of goods and services. 			<ul style="list-style-type: none"> Scenario conditions: Taiwan’s temperature 3.0°C to 3.6°C higher by 2100; assumption is that the hazard magnitude of floods, mudslides and landslides is of two orders of magnitude higher than under the RCP 4.5 scenario. Under this scenario, the places of business of 1,087 of the 1,319 suppliers (82.4%) had medium potential hazard levels (26-50); and 232, or 17.6%, had high hazard levels (51-75). The 1,087 suppliers with medium hazard levels account for 85.69% of all purchases, and their risk can be managed by monitoring the stability of their supply of goods and services. The 232 suppliers with high hazard levels account for 14.31% of all purchases, and Fubon can manage their risk by looking at how dependent it is on them and change suppliers if necessary. 		

Supplier transition risk assessments:

To address and mitigate climate change, The government is considering to charge companies carbon fees. We conducted NDC-based assessments and stress tests based on different carbon fee scenarios to better understand their potential impact on suppliers’ cost of goods sold and gauge how passing on those fees to customers could affect Fubon’s procurement costs.

Scenario 1 Carbon fee of NT\$120 (about US\$4)/tCO2	Scenario 2 Carbon fee of NT\$300 (about US\$10)/tCO2	Scenario 3 Carbon fee of NT\$870 (about US\$29)/tCO2	Scenario 4 Carbon fee of NT\$1,500 (about US\$50)/tCO2
<ul style="list-style-type: none"> Description: Following the Environmental Protection Administration’s proposal to amend the Greenhouse Gas Reduction and Management Act in 2021, industry expectations are that a carbon fee will be assessed that is similar to Singapore’s carbon fee (US\$4) If suppliers pass on the full carbon fee to Fubon, it will increase Fubon’s full-year procurement costs by an estimated NT\$4.08 million, which would represent a 0.11% increase over total procurement costs in 2020. 	<ul style="list-style-type: none"> Description: The Environmental Protection Administration follows the recommendation of international organizations and imposes a US\$10/tCO2 carbon tax If suppliers pass on the full carbon fee to Fubon, it will increase Fubon’s full-year procurement costs by an estimated NT\$10.20 million, which would represent a 0.27% increase over total procurement costs in 2020. 	<ul style="list-style-type: none"> Description: The Environmental Protection Administration imposes a carbon tax based on the World Bank’s estimate in 2020 of an average global carbon price (excluding the European Union’s Emissions Trading System carbon price) of US\$29/tCO2 If suppliers pass on the full carbon fee to Fubon, it will increase Fubon’s full-year procurement costs by an estimated NT\$29.59 million, which would represent a 0.79% increase over total procurement costs in 2020. 	<ul style="list-style-type: none"> Description: The Environmental Protection Administration imposes a carbon tax based on the administrative fine of NT\$1,500/tCO2 stipulated in the Greenhouse Gas Reduction and Management Act for having higher emissions than allowed. If suppliers pass on the full carbon fee to Fubon, it will increase Fubon’s full-year procurement costs by an estimated NT\$51.01 million, which would represent a 1.36% increase over total procurement costs in 2020.

Sector	A. 2019 sector emissions (million t/CO2)	B. 2020 sector GDP (NT\$ million)	C. 2020 total Fubon purchases (NT\$ million)	D. Share of Fubon purchases of sector’s GDP (C/B)	Carbon fee costs (NT\$ million)			
					Scenario 1 (Carbon fee) NT\$120	Scenario 2 (Carbon fee) NT\$300	Scenario 3 (Carbon fee) NT\$870	Scenario 4 (Carbon fee) NT\$1,500
Industrial	126.52	7,222,739	1,659	0.23‰	3.49	8.72	25.29	43.60
Service	27.03	11,470,592	2,096	0.18‰	0.59	1.48	4.30	7.41
Transportation	36.20	589,521	0.088	0.00015‰	0.001	0.002	0.005	0.008
Total	189.75	19,282,852	3,755	0.195‰	4.08	10.20	29.59	51.01

Note 1: Carbon fee costs = Economic sector’s carbon emissions*Share of Fubon purchases of that sector’s GDP*carbon price per tCO2

or = Economic sector’s carbon emissions*(Fubon purchases from that sector/sector GDP for the year)*carbon price per tCO2]

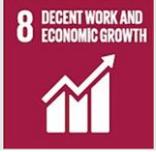
Note 2: Fubon’s purchases in 2020 totaled NT\$3,755 billion (or 0.195‰ of total GDP of the industrial, service, and transportation sectors), consisting of:

- 1) NT\$1.659 billion from the industrial sector (including from apparel, paper goods, communications equipment, building construction, and oil product suppliers), or 0.23‰ of the sector’s GDP;
- 2) NT\$2.096 billion from the service sector (including from suppliers of retail services, telecommunications services, securities, futures and financial assistance services, other professional and technical services, and other personal and household goods repair services), or 0.18‰ of the sector’s GDP; and
- 3) NT\$88,000 from transportation service providers, or 0.00015‰ of the sector’s GDP.

5 Climate-related Opportunities

5.1 Climate-themed Investment

Fubon constantly looks for investment opportunities in climate-themed areas. In 2019, the Company began tracking its low-carbon investment, and it continued to rise in 2020, reflecting Fubon’s efforts to carry out its responsible investment strategy.

SDGs	Areas of Investment	Class of Investment	2017	2018	2019	2020
			Unit: NT\$100 million			
	Wind and solar power	Stocks	83	68	52	53
	Wind and solar power	Loans	12	42	89	139
	Green bonds	Bonds	15	139	126	143
	Green bonds ¹	Issue	-	10	-	-
	Low-carbon investment ²	Stocks/bonds	-	-	16,017	16,780
	Planned property developments with energy-saving designs	Total project budgets	250	520	514	642
	Green buildings	Loans	117	122	131	180
	5+2 innovative industries, green energy technologies, and other sectors recognized as being related to green energy	Loans	1,056	899	870	936

Note 1: The NT\$1 billion in green bonds (G107BH) issued on March 1, 2018 reached maturity on March 1, 2020. Funds were used for the development of renewable energy and energy technologies.

Note 2: The formal accounting of low-carbon investment began in May 2019, and started with investments in stock and bonds of constituent companies in the MSCI ACWI Low Carbon Target Index. That index has a stronger focus on low carbon (58.2 tCO2e/\$M sales) than the MSCI ACWI index (178.5 tCO2e/\$M sales).

5.2 Natural Disaster Services and Agriculture Insurance

Fubon Insurance provides business continuity planning and post-disaster loss control services that help customers quickly rebuild their operations and reduce capital expenditures when a disaster occurs, helping mitigate the impact of major disruptions. Complete protection against natural disasters is also provided to companies and the public through earthquake, typhoon and flood insurance and business interruption insurance with the backing of the global reinsurance market. At the same time, Fubon Insurance has been an active participant in the Council of Agriculture’s pilot program for crop insurance, developing insurance products best suited to Taiwan. Since its launch of Taiwan’s first agriculture insurance policy (for top grafted pear crops) in 2015, the company has introduced policies covering pears, rice, bananas, grouper, milkfish, striped bass and tilapia as well as typhoon and flood insurance for agricultural facilities. These products give Taiwan’s farmers and aquaculture operators insurance options that help them divert risks from natural disasters. Fubon Insurance has also worked closely with experts in other fields to develop innovative products tailored to the special characteristics of different crops.

Natural Disaster and Agriculture Insurance Products		2017	2018	2019	2020	2017	2018	2019	2020
		No. of active policies				Premium income (Unit: NT\$ million)			
Natural disasters	Natural disaster insurance	435,086	466,206	477,669	501,959	3,050	3,139	3,036	3,646
	Pear crop insurance	230	304	645	1,022	7.5	9.4	19.7	24.8
Crops	Rice crop insurance	4,367	10,728	16,491	16,723	20.7	58.4	90.6	95.5
	Banana crop insurance	-	-	291	182	-	-	12.0	4.4
Aquaculture	Temperature-indexed parametric aquaculture insurance	18	199	173	93	3.0	33.7	30.5	16.7
	Parametric rain aquaculture insurance	-	-	-	5	-	-	-	4.4
Agricultural facilities	Typhoon and flood agricultural facility insurance	-	206	414	617	-	2.4	5.5	8.1
Total		439,701	477,643	495,683	520,601	3,082	3,243	3,194	3,800
Share of total underwriting portfolio (%)		4.02%	4.01%	3.86%	4.03%	8.52%	8.39%	7.63%	8.43%

5.3 Insurance for Green Energy Products

Fubon Insurance has made harnessing its core competencies to create environmentally friendly products and services a top priority. Beyond using its influence to push green concepts, it also hopes to achieve its vision of a low-carbon lifestyle and environmental sustainability by giving customers incentives to get involved.

Types of Insurance for Green Energy Products	2017	2018	2019	2020	2017	2018	2019	2020
	No. of active policies				Premium income (NT\$ million)			
Eco-friendly car insurance	247	500	1,579	2,081	30.9	41.3	109	144
Green energy project insurance	721	1,054	1,257	1,546	45.4	140	1,000	890
Insurance for electric motorbike sharing services	-	-	7,132	10,117	-	-	4.8	8.3
Total	968	1,554	9,968	13,744	76.3	181	1,113	1,042
Share of total underwriting portfolio (%)	0.01%	0.01%	0.08%	0.11%	0.21%	0.47%	2.66%	2.31%

5.4 Sustainability-related Insurance Products

Fubon Insurance offers “Environmental Pollution Liability Insurance” to raise environmental awareness among ESG-sensitive gas station owners and storage tank operators and help them manage pollution risks to the soil and groundwater. This coverage offers protection against liability for losses, compensation, or cleanup or remediation costs generated by accidental or gradual pollution. But if a potential client for this insurance has been put on a government watch list, indicating that the location where the client operates could have soil or groundwater pollution issues, the applicant will only be able to get insurance once it completes a remediation plan and is removed from the watch list.

Sustainability-related Insurance Products	2017	2018	2019	2020	2017	2018	2019	2020
	No. of active policies				Premium income (NT\$ million)			
Environmental pollution liability insurance	-	21	13	14	-	4.1	2.6	2.7
Share of total underwriting portfolio (%)	-	<0.01%	<0.01%	<0.01%	-	0.01%	0.01%	0.01%

5.5 Green Operations

Fubon launched the ISO 14064 greenhouse gas inventory certification process in 2012, and the inventory’s coverage has been 100% since 2017. The ISO 14001:2015 environmental management certification process was initiated in 2016, and since then Fubon has established a “Fubon Financial Holdings Environmental Management Policy” and issued an “Environmental Policy Statement.” Subsidiary Fubon Insurance received certification under this standard in 2018, and Fubon Life, Taipei Fubon Bank, and Fubon Securities adopted the environmental management system and received certification in 2019. Fubon Financial Holdings and subsidiary Fubon Insurance received ISO 50001 energy management certification in 2017, and Fubon Life, Taipei Fubon Bank and Fubon Securities all had their energy management systems certified under the standard in 2018.

Fubon will soon join the global trend toward internal carbon pricing to promote greener operations. Beginning this year, it plans to adopt an “implicit pricing” model in its program to evaluate the carbon reduction impact of new equipment purchases and calculate carbon reduction costs (carbon price). It will also compare the benefits of similar types of equipment by looking at their average carbon reduction cost (average carbon price). Carbon price estimates are calculated based on the equipment’s purchase price, electricity savings, and expected life time, while the average carbon price is based on the average of carbon prices for different types of equipment accumulated over years of use. Fubon announces its latest carbon price standards annually for seven types of equipment. In 2021, carbon prices ranged between -NT\$900 and NT\$51,900 per metric ton of CO2 based on the different levels of power consumption of different pieces of equipment.

Fubon has taken several tangible actions to use energy more efficiently, and strengthened management practices to reduce water consumption, waste generation, and paper usage. Ongoing advocacy and management initiatives are in place to promote water conservation and reduce paper use and waste to limit the carbon footprint of the organization’s operations. At the same time, Fubon has made its buildings more eco-friendly to save energy and be more environmentally responsible, earning green building certification and green building candidate certificates in the process. A process was also launched in 2016 to install solar systems on the roofs of five Fubon-owned office buildings, and those projects have since been completed, with combined installed capacity of 81.15 KW. These systems generated a total of 96,091 kWh in 2020 while avoiding the emission of 48.91 metric tons CO2e of greenhouse gases. The Company will continue to evaluate the feasibility of installing solar systems on other buildings in the future.

Location	Installed Capacity (KW)	2017	2018	2019	2020	Total power generated since panels installed
		Power generated by solar panels (kWh)				
Fubon Life Taipei Hanover Building	8.60	8,873	10,124	8,767	9,042	44,793
Fubon Insurance Pingtung Building	12.48	6,543	12,859	13,422	14,643	47,467
Fubon Life Taichung Wenxin Building	5.20	-	5,574	5,247	5,691	16,512
Taipei Fubon Bank Zhongshan Building	35.40	-	18,399	38,237	37,524	94,160
Fubon Insurance Kaohsiung Chunghua Building	19.47	-	-	25,573	29,191	54,764
	81.15	15,416	46,956	91,246	96,091	257,696

6. Targets

Fubon has set ESG targets for 2025 based on its ESG Visioning Project and sustainability blueprint that focus on four key strategies: decarbonization, digitalization, empowerment and connection. Of those, the decarbonization strategy is aimed at creating a low-carbon operating environment, achieving United Nations sustainable development goals, and engaging in international carbon reduction initiatives. We intend to use our financial leverage to steer companies toward low-carbon practices by actively supporting companies involved in low-carbon transitions, strengthening responsible investment, backing clean energy development, and offering insurance products that solidify the resilience of assets. These actions will accelerate value chains’ transition to more sustainable practices and help achieve the shared goal of mitigating global warming, in the process establishing Fubon as a leader in “impact investing.”

Strategy	Sustainability Vision Blueprint	2025 Targets	Action Plans
<p>Decarbonization</p> 	<p>Help customers transition to sustainable practices</p>  <p>Use sustainable finance-related investments, loans, products and specialized services to build a low-carbon model and help clients improve their ESG performance</p>	<ul style="list-style-type: none"> ✓ Green finance: NT\$2.45 trillion ✓ Continue to refine and expand the setting of standards for allowing investment in or pulling investment out of climate-sensitive industries ✓ Participation in green bond underwriting cases: 34% ✓ Climate-related products and services: NT\$7 billion ✓ Reduction of carbon from operations: 12% compared to 2017 baseline 	<ul style="list-style-type: none"> ■ Increase green finance-related investment and loan portfolios and the underwriting of green bonds ■ Set standards for investing in or pulling out of carbon-intensive industries ■ Develop climate- and sustainability-related insurance products ■ Install energy-saving equipment and plan the purchase of green energy ■ Set science-based targets for emission reduction

In 2016, Fubon committed to introducing science-based targets (SBT) and began in 2018 to commission a third party to take inventory of Scope 1 and Scope 2 emissions and calculate reduction targets. It is also complying with the Financial Sector Science-Based Targets Guidance issued by the SBT Initiative in October 2020 by calculating emissions and planning carbon reduction pathways for Scope 3 generated through investments and loans, and will set related science-based targets for reduction.

7. Looking Ahead

Climate change is taking a growing toll on the world, as extreme climate events occur with greater frequency and intensity. In the context of COVID-19, which has had a massive impact on humanity in a relatively short amount of time, the climate threat may seem like a chronic illness. In the future, however, it could prove more deadly than COVID-19, with severe economic consequences. Though the economic impact of climate change may be different than the costs exacted by the coronavirus, there can be no doubt about its scale: in the next 10 to 20 years, economic losses caused by climate events will approximate the economic disruption caused if a pandemic were to occur once every 10 years. Mitigating climate change has become an imperative for all people, countries and enterprises, and while it will not be easy, the situation is not hopeless. Beginning now, if the necessary changes are made and the right actions taken, we can prevent climate-related disasters.

As the world strives toward a net-zero carbon vision, every sector and every company will have to play critical roles in driving real change, and individuals, investors, and governments will increasingly demand that companies adopt more sustainable strategies and concepts. In fact, the world needs more enterprises to transition to sustainable, low-carbon operations to advance global climate goals while maintaining their profitability. To do its part, Fubon Financial Holdings is taking a phased approach in implementing the TCFD framework so that it can effectively incorporate it into its business strategies and investment decisions. Fubon fully appreciates the important role the financial services sector plays in supporting global industrial development and sees its mission as maximizing its financial influence, in part by using its core competencies to expand the impact of its sustainable investment. Through this vision, Fubon's hopes to emerge as a positive force in driving industrial value chains to engage in sustainable practices and creating added value for society and its stakeholders. We will continue to take action to engender a sustainable future, including promoting our "Run for Green" initiative and embracing such global trends as green finance, responsible investment, and net zero emissions, ultimately creating a better future for all.



Appendix

TCFD Recommended Disclosures Index comparison table

Guidance for All Sectors		page /chapter
Governance	a) Describe the board’s oversight of climaterelated risks and opportunities.	P6/ Ch 2.1
	b) Describe management’s role in assessing and managing climate-related risks and opportunities.	P6/ Ch 2.2
Strategy	a) Describe the climaterelated risks and opportunities the organization has identified over the short, medium, and long term.	P12 / Ch4.1-4.2 ,P13 / Ch4.3.1, P21-22 / Ch 4.3.3 ,P23-25 / Ch5.1-.5.4
	b) Describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning.	P14 / Ch4.3.2 ,P23-25 / Ch5.1-5.4
	c) Describe the resilience of the organization’s strategy, taking into consideration different climaterelated scenarios, including a 2°C or lower scenario.	P12-13 / Ch4.3, P18-19 / Ch4.3.2 , P21 / Ch4.3.2, P21-22 / Ch4.3.3
Risk Management	a) Describe the organization’s processes for identifying and assessing climaterelated risks.	P14-22 / Ch4.3.2-4.3.3
	b) Describe the organization’s processes for managing climaterelated risks.	P10-11 / Ch3.3
	c) Describe how processes for identifying, assessing, and managing climaterelated risks are integrated into the organization’s overall risk management.	P8-10 / Ch3.2
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.	P14 / Ch4.3.2, P19 / Ch4.3.2
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	P31 / Fubon’s CSR report
	c) Describe the targets used by the organization to manage climaterelated risks and opportunities and performance against targets.	P27 / Ch6
Supplemental Guidance for Bank		page /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.	P4 / Ch1, P18 / Ch4.3.2
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. Banks should also consider describing any risk classification frameworks used (e.g., the Enhanced Disclosure Task Force’s framework for defining “Top and Emerging Risks”).	P4 / Ch1
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. Metrics provided may relate to credit exposure, equity and debt holdings, or trading positions, broken down by: Industry ∙ Geography ∙ Credit quality (e.g., investment grade or non-investment grade, internal rating system) ∙ Average tenor . 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.	P14-15 / Ch4.3.2, P18-19 / Ch4.3.2, P23 / Ch5.1
Supplemental Guidance for Insurance Companies		page /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, cedent, or broker selection; and (3) whether specific climate-related products or competencies are under development, such as insurance of green infrastructure, specialty climaterelated risk advisory services, and climate-related client engagement.	(1) Fubon’s CSR report / Fubon Life’s Sustainability report / Fubon Insurance Sustainability report (2)P8 / CH3.2 (3)NO
	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. In addition to a 2°C scenario, insurance companies with substantial exposure to weatherrelated perils should consider using a greater than 2°C scenario to account for physical effects of climate change and(2)time frames used for the climate-related scenarios, including short-, medium-, and long-term milestones.	P12-13 / C4.3
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.	(1)P14-15 / Ch4.3.2, (2)P4 / Ch1.1-1.2, (3)NONE
	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.	P8 / Ch3.2, P10 / Ch3.2.3
Metrics and Targets	a)Insurance companies should provide aggregated risk exposure to weather-related catastrophes of their property business (i.e., annual aggregated expected losses from weather-related catastrophes) by relevant jurisdiction.	P17 / Ch4.3.2