

**Box 2****CBC Strategic Plan to Address Climate Change Issues**

In recent years, extreme weather events resulting from climate change have become more frequent, which not only poses serious threats to life, property, and the ecosystem but also exerts a substantial impact on global economic output. Climate change risks could adversely affect the real economy and through the interconnections across economic and financial sectors amplify financial risks, and even build up systemic risks that threaten financial stability. In light of this, the Bank released the “CBC Strategic Plan to Address Climate Change Issues” on December 30, 2022. Based on the plan, the Bank will progressively implement a series of measures to maintain financial stability and foster sustainable economic development in Taiwan.

***1. Definition and impact of climate change risks*****1.1 Climate change might result in physical and transition risks**

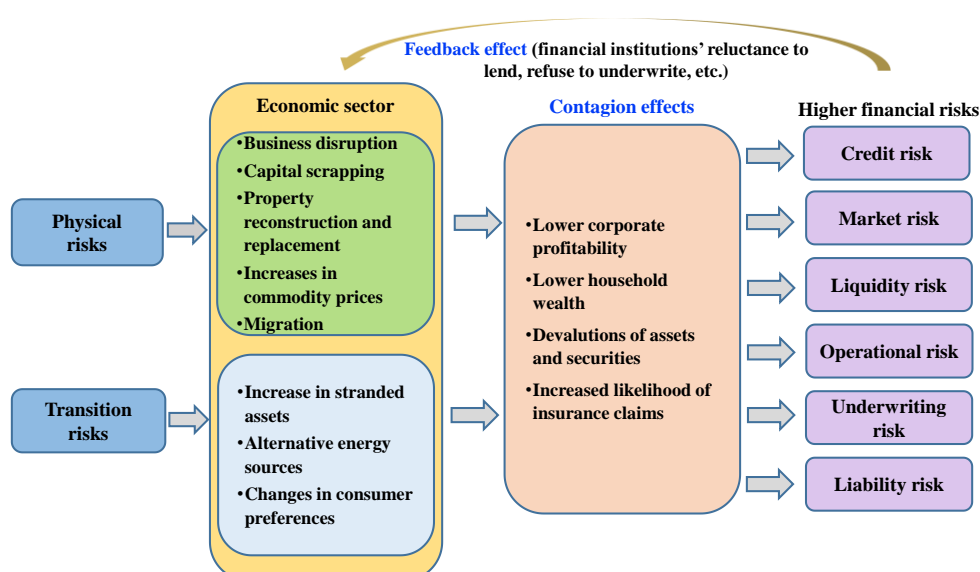
According to the Network for Greening the Financial System (NGFS),<sup>1</sup> climate change risks include physical risks and transition risks.

- **Physical risks** refer to the risks associated with acute impacts from extreme weather events (such as hurricanes and floods) and chronic impacts from global warming (such as increased average temperatures and sea levels), with such adverse implications as business disruption, capital impairment, property reconstruction or replacement, increases in commodity prices, and forced migration.
- **Transition risks** refer to the risks arising from the process of transition towards a low-carbon economy, including policy changes leading to the accumulation of stranded assets in specific industries, the impact of alternative energy sources resulting from advancements in energy technology, or changes in consumer preferences driven by households conforming to environmental protection policies.

**1.2 Climate change risks amplify the contagion and feedback effects across the economic and financial sectors, posing a threat to financial stability**

When the economic sector is exposed to physical risks and transition risks, it could heighten the risks of the financial sector through contagion effects. These risks encompass credit, market, and liquidity risks related to investments or financing positions, operational risks arising from business disruptions owing to disasters, and an increase in underwriting and liability risks owing to an upsurge in compensation claims or indemnity payouts. Consequently, the impacts could be transmitted from the economic sector to the financial

Chart B2.1 Contagion effects and feedback effects of climate risks



Sources: FSB (2020), NGFS (2019), NGFS (2020), and CBC.

sector. In turn, to prevent such risks from increasing, the financial sector might take a series of countermeasures against the shocks, which would generate feedback effects through channels such as capital markets, business adjustments, and cross-border contagion effects, thereby amplifying the impact on the economic sector (Chart B2.1).<sup>2</sup>

## 2. Policies and measures adopted by the Bank in response to climate change

Being a responsible member of the global community, the Taiwanese government announced the *Taiwan Sustainable Development Goals (T-SDGs)* in December 2018, and has actively engaged in sustainable development initiatives. In April 2021, the government declared its commitment to achieving net-zero transition in 2050. Subsequently, in March 2022, it unveiled the comprehensive action plans and measures covering the *12 Key Strategies*<sup>3</sup> to fulfill the long-term net-zero transition goal.

Although the Bank is not the primary driver of the climate change-related actions in Taiwan, it recognizes the importance of aligning itself with the international trend and supporting the government's 2050 net-zero transition plan. The Bank thus formulated two policy objectives and three core strategies after drawing on the experiences and practices of major international central banks and developed a policy framework for the Bank's response actions to address climate change challenges (Chart B2.2). To achieve its policy objectives, the Bank will progressively implement the following measures across five key aspects, namely monetary policy, monetary policy tools, macroprudential surveillance, foreign exchange reserve management, and international engagement and collaboration.

**Chart B2.2 The Bank's policy framework in response to climate change**

Policy objectives	<ul style="list-style-type: none"> <li>Strengthen the resilience of the economic and financial system in response to climate risks</li> <li>Facilitate the smooth transition of the economic system towards a sustainable green economy</li> </ul>				
Core strategies	<ul style="list-style-type: none"> <li>Support the establishment of a green and sustainable investment and financing environment</li> <li>Proactively enhance the Bank's expertise and capabilities to address climate-related issues</li> <li>Incorporate climate risk considerations into the Bank's operation and management of foreign exchange reserves</li> </ul>				
	Monetary policy	Monetary policy operating tools	Macroprudential surveillance	FX reserve management	International collaborations
Policy measures	Conduct research on the impact of climate change upon monetary policies	Utilize monetary policy operational tools to facilitate the development of sustainable finance	Conduct research on macroprudential instruments to address climate change risks	Incorporate green bonds into the FX reserve portfolio	Actively engage in international collaborations pertaining to climate change risks

Source: CBC.

### 2.1 Conducting research on the impact of climate change upon monetary policy

The Bank is deliberating on how to incorporate weather factors into its price forecasting model and plans to collect climate change-related data to compile climate indicators. In the medium term, the Bank will explore the development of industry-specific models and multi-sector models, combined with the results from macro-econometric model analysis, to investigate the impacts of changes in energy or food prices under various scenarios, seeking a deeper understanding of the implications of climate change risks on the economy and the financial system.

### 2.2 Utilizing monetary policy operational tools to facilitate the development of sustainable finance

The Bank is mulling over the adoption of domestic banks' performances of implementing green/sustainable finance as a component of the Bank's reference indicators when conducting open market operations and accepting redeposits from domestic banks. In addition, the Bank plans to include sustainability debentures issued by banks in its annual small-scale test repo operation targets, in order to encourage banks to increase the issuance of such instruments and enhance investors' willingness to hold them.

### 2.3 Conducting research on macroprudential instruments to address climate change risks

The Bank stays updated with the latest international advancements in climate risk

assessment data and methodologies and studies the experiences of major central banks in assessing climate change-related risks and in developing prudential instruments. Going forward, the Bank will collaborate with experts and scholars to conduct research, aiming to enhance expertise in developing in-house climate risk-related models. This will serve as a basis for planning climate risk-related macro-stress testing and for evaluating viable options of macroprudential instruments.

#### **2.4 Incorporating green bonds into the FX reserve portfolio**

Under the principles of safety, liquidity, and profitability, the Bank will incorporate green bonds into its consideration of foreign exchange reserve portfolio management. On the premise that bond issuers meet the Bank's credit rating requirements, the Bank will continuously invest in green bonds that meet international standards and are issued by foreign governments or international financial organizations. Moreover, the Bank will gather and analyze information related to the implementation of sustainable development goals by stakeholders directly involved in foreign exchange reserve portfolio management, thereby contributing to the development of the international green finance market.

#### **2.5 Actively engaging in international cooperation and collaboration pertaining to climate change risks**

Sustainable development has become a key focus in financial policies of various countries. The Bank continues to participate in climate change risk- and green finance-related seminars, and establish interactive channels such as bilateral video conference mechanisms with major central banks and international organizations. These initiatives have facilitated exchanges on the best practices in response to climate change risks and sharing of relevant experiences among central banks.

### **3. Conclusion**

Although the Bank is not the primary driver of climate change-related actions in Taiwan, it will proactively monitor the evolution and developments of climate-related issues. Given that the impact of climate change on the economy and the financial system is highly uncertain and migrates greatly over time, and that international research in this field is just emerging, the Bank will draw insights from international organizations and continuously review and adjust the aforementioned measures. In addition, the Bank has strengthened collaborative efforts with the FSC on climate change issues, aiming to collectively mitigate the impact of climate change risks on Taiwan's economy and enhance the financial system's resilience to climate change risks, so as to ensure the sound development of

### Taiwan's financial sector and sustainable economic growth.

- Notes: 1. NGFS (2020), "Climate Change and Monetary Policy Initial Takeaways," June; NGFS (2021), "NGFS Climate Scenarios for Central Banks and Supervisors," June.
2. FSB (2020), "The Implications of Climate Change for Financial Stability," November; NGFS (2019), "A call for Action, Climate Change as a Source of Financial Risk," April; NGFS (2020), "Climate Change and Monetary Policy Initial Takeaways," June.
3. Including wind/solar photovoltaics, hydrogen, innovative energy, power systems and energy storage, energy saving and efficiency, carbon capture utilization and storage, carbon-free and electric vehicles, resource recycling and zero waste, carbon sinks, green lifestyle, green finance and just transition.