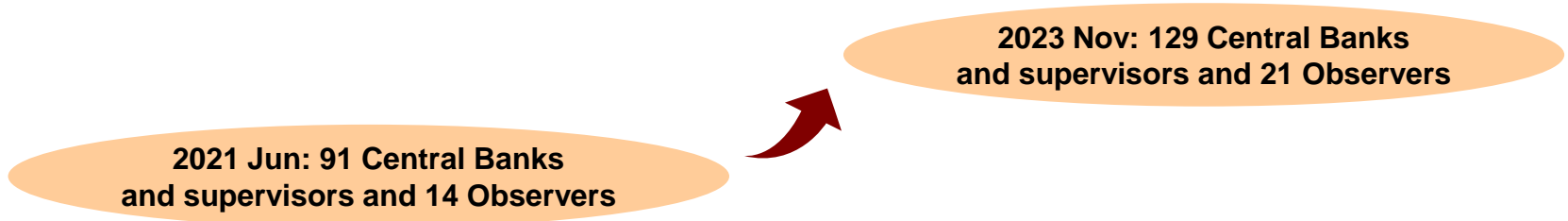


# NGFS: Overview, Developments, and Recent Updates

- As the Network for Greening the Financial System (NGFS) continues to evolve, with membership growing from 91 central banks and supervisors in June 2021 to 129 central banks and supervisors in November 2023, and observers increasing from 14 to 21, the need for banks to align their scenario analysis with up-to-date climate scenarios and assumptions has never been more critical.



## New Methodologies and Refined Data

- Banks using the March 2021 NGFS framework and data for scenario analysis and stress testing should now incorporate the November 2023 updates, which introduce refined methodologies and updated data.

## Improved Model and Expanded Scenario

- These updates include enhanced modelling of physical risks, such as droughts and heatwaves, and expanded scenario dynamics to include the impacts of delayed climate policies and global events like the Ukraine conflict.
- Octagon Advisors specializes in helping bank and other FI clients navigate these changes efficiently. OA can assist your bank or FI in integrating the latest NGFS scenarios, such as the 'Too-little-too-late' and 'Orderly' Low Demand scenarios, ensuring that your risk management strategies are robust, compliant, and aligned with the latest developments. By partnering with us, you can confidently adapt to these changes, maintaining resilience against evolving environmental, economic and regulatory challenges.

# NGFS Scenario and Carbon Price Estimation Updates (1/2)

- The table explains updates to the NGFS climate-related financial scenarios: grey cells indicate scenarios absent in certain years, beige cells denote updates to impacts under existing scenarios, and orange cells are new scenarios.
- These changes, reflecting the latest data, require banks and other FIs to recalibrate their strategies to manage risks effectively across varying climate policies and regional differences.
- Such adjustments are crucial for ensuring compliance with regulatory expectations and seizing strategic opportunities in a dynamically evolving environmental and financial landscape.

Quadrant	Scenario	Year	Policy reaction	Carbon dioxide removal	Regional policy variation
Orderly	Low Demand	2023	Immediate	Medium use	Medium variation
		2021			
	Net Zero 2050	2023	Immediate	Medium-high use	Medium variation
		2021	Immediate and smooth	Medium use	Medium variation
	Below 2°C	2023	Immediate and smooth	Medium use	Low variation
		2021	Immediate and smooth	Medium use	Low variation
Disorderly	Divergent Net Zero	2023			
		2021	Immediate but divergent	Low use	Medium variation
	Delayed Transition	2023	Delayed	Medium use	High variation
		2021	Delayed	Low use	High variation
Hot house world	Nationally Determined Contributions (NDCs)	2023	NDCs	Low use	Medium variation
		2021	NDCs	Low use	Low variation
	Current Policies	2023	None – current policies	Low use	Low variation
		2021	None - current policies	Low use	Low variation
Too-little-too-late	Fragmented World	2023	Delayed and fragmented	Low-medium use	High variation
		2021			

# NGFS Scenario and Carbon Price Estimation Updates (2/2)

## Carbon Price Comparison for 2 Sample Scenarios

- The latest NGFS update has significantly increased projected 2050 carbon prices under the Below 2° C scenario by over 50%.
- This major revision impacts banks using shadow carbon pricing, with severe impact on projected outcomes. It is essential for banks to use the latest data to develop accurate strategies.
- Octagon Advisors is dedicated to helping banks and other FIs integrate these updates to enhance strategic alignment with evolving regulatory and market expectations.
- Partner with us to uplift your risk management and decision-making to industry-leading standards.

Below 2°C (unit: US\$2010/t CO2)		Carbon Price 2030	Carbon Price 2050
Price   Carbon			
2021		64.33	248.06
2023		66.04	387.22
Price   Carbon Demand Residential and Commercial			
2021		64.33	248.06
2023		66.04	387.22
Price   Carbon Demand Transportation			
2021		64.33	248.06
2023		66.04	387.22
Delayed transition (unit: US\$2010/t CO2)		Carbon Price 2030	Carbon Price 2050
Price   Carbon			
2021		0	388.72
2023		0	323.70
Price   Carbon Demand Residential and Commercial			
2021		0	388.72
2023		0	323.70
Price   Carbon Demand Transportation			
2021		0	388.72
2023		0	323.70

# Reference Examples (1/2)

- For Banks that Have not Updated Scenario Analyses in line with the Latest NGFS Guidance

## **Recommendation:**

### **Update and Enhance Transition Risk Models:**

- Integrate the latest NGFS scenarios, namely "Low Demand" and "Fragmented World".
- Update parameters under existing scenarios, including "Net Zero 2050", "Delayed Transition", and "Nationally Determined Contributions".

This involves revising inputs into climate scenario analysis and stress testing to recalibrate outputs from banks' credit rating models to better predict and mitigate transition risks up to 2030 and 2050.



## **Rationale:**

### **Alignment with Regulatory Expectations and Market Realities:**

The banking sector is increasingly subject to stringent environmental regulations and expectations from stakeholders for sustainable practices. By incorporating the latest NGFS scenarios, banks will not only comply with regulatory demands but also enhance their resilience against financial risks associated with climate transitions.

### **Future-Ready Strategic Planning:**

Updating medium and long-term forecasts enables banks to strategically position themselves in a rapidly evolving market, ensuring sustainability and profitability in the face of transition risks.

# Reference Examples (2/2)

## ▪ For Banks with Exposures to the Palm Oil Industry - Physical Risk Scenario Analysis

### **Recommendation:**

#### **Data and Model Updates:**

- Employ the most recent data and models from NGFS's Climate Impact Explorer to recalibrate bank's models for assessing physical risks, including for customers in the palm oil industry.

#### **Scenario Analysis:**

- Execute in-depth scenario analyses to understand potential impacts, ensuring tailored responses to industry-specific challenges.



### **Rationale:**

#### **Industry-Specific Risk Management:**

The palm oil industry is particularly vulnerable to climate impacts, which can significantly influence crop yields and customer's credit rating.

By enhancing the risk assessment models, banks can provide to its palm oil customers more suitable product offerings to beef up customers' resilience to physical risks.

#### **Strategic Risk Mitigation:**

Follow-up actions from scenario analysis help to protect banks' interests and their clients' business operations in sectors prone to environmental risks.