

15 July 2024

Secretariat of the Basel Committee  
on Banking Supervision (BCBS)  
Bank for International Settlements  
CH-4002 Basel, Switzerland

Dear Basel Committee members:

***“The role of climate scenario analysis in strengthening the management and supervision of climate-related financial risks”***

The International Banking Federation welcomes the opportunity to provide feedback on [the BCBS's Discussion Paper \(DP\) “The role of climate scenario analysis in strengthening the management and supervision of climate-related financial risks”](#)

### Key messages

#### Objectives

We support the BCBS's efforts to promote a principles-based approach to improve banks' risk management and supervisors' practices related to climate-related financial risks, as well as to consider complementary work on the practical application of climate scenario analysis (CSA), including its role in pursuit of strengthening the regulation, supervision and practices of banks worldwide to enhance financial stability.

We agree that CSA can be an important forward-looking tool to assess the resilience of banks' business models and strategies to a range of plausible climate-related pathways and assess the potential impact of climate-related risk drivers on their overall risk profile. Given uses and methodologies will vary across jurisdictions and banks, **the BCBS's work to promote a common understanding and advance common practice of CSA is welcomed. While we support increasing harmonisation and comparability to address level playing field concerns, it is also important to maintain some leeway for fine-tuning design features to banks' specific risk profiles, business models and geographical locations. We caution that CSA is still in a relatively early stage of development, with data and methodological gaps persisting.** Best practices will undergo significant evolution as time goes on. **Excessive standardisation might potentially and unintentionally restrict improvements and innovations** in CSA design and approaches.

Moreover, we note that jurisdictions are heterogeneous, with often significant differences in insurance and other adjacent markets and mandates given to prudential regulatory agencies. As a result, **we continue to urge the BCBS to take a principles-based approach** that accommodates these differences to enable proper reflection of idiosyncratic risks and allow for improvements to CSA development of data and design. Accordingly, we believe that it is premature to completely standardise or incorporate CSA into the Basel prudential framework at this time, as the 2022 Principles state that banks should make use of scenario analysis where appropriate. Instead, regular updating of these guidelines through targeted work with banks and supervisors would be beneficial.

## Challenges

**Uncertainty surrounding the outputs of CSA makes it challenging to incorporate into risk management decisions.** While CSA exercises are helpful to understand financial risk transmission channels in a specific scenario, climate scenarios are not forecasts of expected climate-related physical impacts and are not forecasts of government and consumer behaviour. There is a high degree of uncertainty around the timing and magnitude of climate-related physical risk events and the resulting political, social, and economic reactions to these events. Those uncertainties can generate considerable variation in estimates of expected impacts, which complicates the use of results in risk management decision making (e.g., with respect to the use of some common risk management tools, such as quantitative risk limits).

**Also, the key challenges associated with use of CSA to estimate climate-related financial risks relate to the availability and completeness of data and modelling approaches;** climate-related financial risks are highly uncertain and challenging to measure. These challenges also vary between lines of business and regions, and in some regions information is not available at all. Additionally, there are significant jurisdictional differences in subsidies and offsets to these risks, making a broad application of CSA difficult at best.

We also caution against integrating climate scenarios into economic scenarios and credit risk parameters such as PDs and LGDs in credit risk methodologies. For example, in some jurisdictions, banks face challenges to synchronise between regulatory climate stress testing exercises and scenarios used for credit risk modelling.

### Balance between standardisation and flexibility

We would like to emphasise that, as raised in the DP, **while standardisation should improve the comparability of banks' CSA exercise results for regulators and supervisors, it could make it more difficult for banks to take into account idiosyncratic risks.**

Further, the field of CSA is highly dynamic, with practices expected to evolve rapidly. Early standardisation may unintentionally prevent or restrict improvements or innovations in CSA design and approaches, especially considering banks' specific risk profiles, business models, and geographical locations. Also, increased standardisation could render a CSA exercise disproportionate to the materiality of the risk to a bank and its capabilities. Consequently, **any future guidance on CSA should be principles-based, avoid prescriptive approaches, and allow sufficient flexibility within implementation to adjust to specificities in certain jurisdictions and/or business models.**

### Next steps

The DP states that the BCBS will consider complementary work based on the feedback received through this consultation and building on the work under way in other global forums (e.g., the Financial Stability Board (FSB) and Network for Greening the Financial System (NGFS)), but **the future work plan, deliverables and timeline are not clear.** It would be helpful if the BCBS could publish the results of this work so that banks can anticipate, evaluate, and understand the next steps.

## Responses to questions

Q1. How does the role of CSA vary based on the objectives listed above, and are there other prudential objectives where CSA could be relevant?

### Risk management processes

While the outputs of CSA exercises may inform risk analysis, **it is important to recognise that climate scenarios are not forecasts of what will happen, but rather a means of exploring how a specific climate scenario could translate to financial risk exposure given a specific set of variables.** While this may provide insights into potential areas of vulnerability and how financial risk

may be transmitted, it is not an indicator of the likelihood that these specific events and variables will occur or that the resulting impacts will mirror the variables used in the scenario. As such, **there is a high level of uncertainty around the underlying scenarios and their likelihood, which can generate considerable variation in estimates of expected impacts**. This complicates the use of CSA in making risk management decisions, as well as the use of some common risk management tools, such as quantitative risk limits.

**References to the use of CSA in “determining exposures or risk limits” may be viewed as suggesting that banks should adopt lending limits** specifically related to climate-related financial risks. In line with existing risk identification processes, banks are appropriately considering impacts of material climate-related risk drivers on the overall risk appetite of the firm. Mandating the creation of new lending limits specific to climate-related risk drivers would be inconsistent with the regulatory expectation that banks’ risk management framework incorporates all material risk considerations to the bank. As a driver of traditional banking risks, material climate risk considerations would be captured in existing risk limits along with all other material risk drivers.

Moreover, it is important to stress that **requiring any specific metrics or limits from the perspective of climate risk drivers could introduce imbalances or an outsized focus on ESG risks within a bank’s broader risk appetite framework. Such undue focus could limit financing to geographic areas or investment in adaptation/mitigation/transition activities**. Banks should be responsible for understanding and managing the risks they are exposed to.

**It is not clear what is meant by references to the use of CSA in “pricing exposures.”** Any future references to such a use of CSA would require additional explanation and consideration.

#### Internal and supervisory capital and liquidity assessments

**We believe it would currently not be appropriate to use climate stress testing as an input to capital and liquidity adequacy assessment as the foundations are not in place to do so with respect to knowledge, data and modelling.**

**Climate risk drivers should be approached in the same manner as other financial risk drivers** when banks run their ICAAP and ILAAP processes, recognising the early stage of development and with only those assessed as material incorporated into the assessment and not as separate risks in and of themselves. This approach is in line with regulatory expectations and in line with the guidance on CSA in the 2022 Principles.

**The time horizons analysed within capital and liquidity assessment process (e.g., ICAAP and ILAAP) are typically 3-5 years, while climate-related risk drivers can cause risks to materialise over multiple and longer timeframes.** Some risk factors may materialise sooner (for example, higher incidences of severe weather-related events and associated physical risks such as flooding), while others are likely to unfold in the coming years, and some could be much more significant – under some scenarios – in future decades.

As recognised by the BCBS in the DP, CSA is currently evolving rapidly and is expected to mature over time. While banks are making progress in incorporating climate-related risks into the internal capital adequacy assessment process, this should not be imposed on banks at this stage, especially given that the field of CSA practices is advancing dynamically.

As recognised by the BCBS in [its 2021 report on measurement methodologies for climate-related financial risks](#), caution is required when using climate stress testing to assess resilience, and several key conditions would need to be met before climate stress tests could be informative to quantitative capital planning, including maturation of data and tools, improvements in knowledge of financial risk transmission channels, and inclusion of risks that could plausibly crystallise in the near-term. Similarly, data quality and model validation approaches constitute obstacles to considering climate stress tests in an ICAAP/ILAAP.

**This appears to be suggesting that banks should use CSA to assess the “resilience” of their decarbonisation targets and net zero transition plans (i.e., a bank’s business strategy with respect to transition).** The DP also states that “the outcomes of climate scenario analysis can be inputs to inform banks’ strategies” and that “long-term scenarios can be employed to study the potential effects on banks’ profitability and the growth prospects of economic structural changes.” It is important to recognise that climate scenarios are not forecasts that can be used to predict impacts on a bank’s profitability over time or to set business strategy, but are scenarios that can be used to understand financial risk transmission channels.

Further, while assessing the resilience of bank business models and strategies is generally a worthwhile effort, strategic risk is explicitly excluded from the definition of operational risk. It is important, therefore, that the alignment pathways used for strategic initiatives such as target-setting and transition planning are not conflated with the scenarios that banks are using for CSA.

**The BCBS should, therefore, be cautious of framing the use of CSA to drive banks’ business strategy in a way that could potentially constrain banks’ business models and strategic planning and create risk to banks and the financial system.** With respect to banks’ business strategy more broadly, what is important from a regulatory and supervisory perspective is that banks have in place sound governance and risk management frameworks.

Q2. What are the key challenges in the application of CSA and how can they be overcome?

As discussed in response to question 1, **the inherent uncertainty of CSA outputs makes it challenging to incorporate into risk management decisions.** While CSA exercises are helpful to understand how a climate scenario may translate to financial risk exposure given a certain set of variables, climate scenarios are not reliable forecasts. The degree of uncertainty around the timing and magnitude of climate risk events and the reactions to these events is high, and those uncertainties can generate considerable variation in estimates of expected impacts, which complicates the use of results in some common risk management tools.

As stated in the previous section, **one of the key challenges to CSA is the limitations of available data.** Currently, banks have to rely on assumptions and proxies, which will lead to high levels of uncertainty within their outputs and challenges with comparability across banks for the same risk.

In order to limit divergence and close data gaps, it would be beneficial to have guidelines on how to fill data gaps while waiting for information flows to become more organised, or collective data infrastructure to materialise.

Also, strategic partnerships with, for example, insurers should be considered. The impact of fire and flood risk is already well established in the insurance industry, and there are a range of geo-spatial data providers, as well as the expertise to work with and analyse this data. Partnerships of this sort could provide learnings and would avoid duplicating efforts.

**The lack of short- to medium- term plausible scenarios of diverse severities is another challenge.** It is necessary to develop tools and methodologies to translate long-term impacts into short- and medium- term impacts to avoid different assessments across banks for the same risks. For long-term scenarios, already updated annually by the NGFS, the level of information on transmission channel projections is often insufficient. This can lead to disparate approaches among banks and supervisors, which may contribute to lack of comparability.

Different accounting practices could also undermine consistency and comparability as well as potential difficulties with mis-alignment between credit risk and climate risk assessment methodologies.

While the nature and scope of CSA varies by jurisdiction, some CSA exercises undertaken by central banks globally have confirmed limited materiality of climate-related financial risk as it relates to first-order impacts. **More consideration is needed by central banks regarding the consistent**

**application of second-order impacts** which exacerbate macroeconomic weakness, and how climate-driven impacts flow through to the broader financial system.

Moreover, additional key challenges relate to:

- Availability of scenarios that are granular enough to apply to different jurisdictions (e.g., LATAM, US, EU) with flexibility for banks to tailor to their business.
- The complexity and challenges regarding consistent scenarios given that it is not sufficient to look to a single scenario.
- The fact that despite disclosure obligations for banks in several jurisdictions, there are no such requirements for corporates to disclose under specific scenarios.

Q3. What are the key areas where CSA methodologies and capabilities need to be further developed to be useful and relevant for the different objectives listed in this paper?

**Scenario design is the most critical field for which new capabilities are needed.** Work is needed both on the availability of short-medium horizon scenarios and on the level of information for key transmission channel projections. The objective of the scenario should be set out and be clear in order for banks to select the appropriate scenarios for CSA. Climate scenarios which provide a particular set of variables and resulting outcomes (e.g., NGFS divergent scenario) are appropriate for CSA as these allow banks to assess and explore potential outcomes and vulnerabilities under this particular scenario. On the other hand, alignment pathways which show what needs to happen in order to reach net zero by a particular date (e.g., IEA NZE) are appropriate for strategic objectives such as target-setting, but should not be conflated with the stress scenarios that banks are using for CSA. The other points which require more thinking to better size CSA (particularly tail risks) are what and how non-linearities and tipping points might feed into risk analysis.

Scenarios should not be seen as a prediction but instead as a plausible pathway with defined probabilities and be used to indicate sensitivities to such a pathway, similar to stress testing exercises.

Guidelines on how to fill data gaps so as to limit undue noise in the risk assessments and collective data infrastructure could speed up the closure of the data gap issue.

Q4. Are the key features listed above appropriately calibrated for a range of CSA exercises, and should other features be considered?

**We generally agree with the characterisation of the key features articulated by the BCBS.**

However, we would like to flag main challenges regarding these key features:

- Significant in-house expertise is required to develop these scenarios under these criteria. Even larger firms would see this as a significant challenge, not to mention smaller banks. All of this would require a lot of granular inputs, which in turn will be time consuming. Something more standardised could be appropriate.
- Plausibility: we believe that what can be considered plausible will vary across banks.
- Proportionality: the BCBS could consider stratified benchmarking as it is very difficult to assess the materiality of these kinds of impacts before a coherent methodology is established.

Q5. How does the design of CSA exercises vary depending on the objectives? Please elaborate on the main usage-specific considerations for each of the different objectives.

The risk identification objective can be met by various forms of CSA that can inform the understanding of the transmission channels for climate risk factors and assess the likelihood and severity of risk events that can be triggered by climate risk factors.

The risk management objective should leverage on the risk identification process to focus on material risks for the bank, taking into account the different horizons of analysis depending on the duration of the various portfolios and, for business risk, on the time needed to adapt an entity's business model.

ICAAP/ILAAP and regular supervisory climate stress tests should focus on climate risk factors that are material over a planning horizon, while it remains difficult to determine when some impacts might occur in the medium to long-term.

CSA exercises set by the supervisor (top-down) should be principles-based and then be tailored to each bank's risk profile. This will help to compare and contrast across banks, while allowing banks to focus on their own risk exposure. Also, the ability to collaboratively consider feedback loops into CSA, to allow banks to better understand other firms' approach under stress, would be beneficial. For example, the mortgage market would benefit from understanding how the insurance industry might adjust or adapt their business model to greater physical risks. This would increase the robustness of underlying second order, etc, effects.

Banks could also use different scenarios to test where the specific sensitivities are or look in more detail at areas they have already identified as important. Banks could also use the scenarios to inform propensity for extreme events and in turn convert into a climate stress test relevant to their balance sheet and exposures.

**Materiality:** Regardless of the objective of a CSA exercise, it should focus on financial risks that are material to industry or material to banks. Depending on the objective of the long-term scenario, the assumptions may be different for these exercises, impacting the results of the CSA exercises.

**Balance sheet assumptions:** There is no clarity in the approach to be used. While the DP refers to static balance sheet in the short-term and dynamic balance sheet in the long-term as valid options, supervisors (in certain jurisdictions) are already requiring a dynamic balance sheet approach irrespective of the time horizon. We support flexibility with both static and dynamic balance sheet approaches as valid options as capabilities may vary across banks/jurisdictions.

**Baseline selection:** The BCBS assumes that banks are capable of defining a baseline scenario for climate. We believe that it only makes sense to talk about a baseline when it is possible to determine the probability of occurrence of different possible scenarios. For the time being, banks do not have the capacity to do so, and therefore it is too premature to refer to baseline scenarios.

Q6. What additional usage-specific considerations are relevant for each of the different objectives of CSA listed in this paper and why?

**In terms of data availability, it is important to consider the regional geography in which banking operations are concentrated.** For example, it is difficult for even third-party data providers to cover the complete supply chain of operations of companies operating in Asia, Middle East, Africa regions.

**Another consideration is risk type.** As climate risk is a driver of traditional banking risk types, the relevant considerations will vary based on which risk type is the focus of the exercise. For example, if a bank is focusing on credit risk assessment, the NGFS scenario that includes a way of capturing climate impact on ECL/PD/LGD would be suitable. However, if a bank is looking at liquidity risk, it may need to have a bespoke scenario or a scenario of a different nature. Liquidity risk works on a very short-term horizon. The timeframe is not years or months, but rather overnight to 30-days. Therefore, it is essential to consider all relevant parameters when conducting CSA. Different risk types will have different nuances, which manifest in different ways for each risk type that the bank acknowledges and works on.

Q7. Which scenario and scenario features are used for the different objectives listed (ie internally developed, those from scenario builders or a combination of the two)?

Scenario design is highly demanding, and most banks leverage scientifically based anchor scenarios for their CSA. However, banks need to expand these scenarios - notably in terms of sectoral or geographical dimensions - to be able to run them. Some banks use scenario builders for this, while others have internalised these capacities.

Q8. What features and measures could be adopted in the future to enhance the utility of currently available scenarios (eg NGFS, IEA, IPCC)?

Development of a range of **several time horizons**, with notably a 3 to 5-year horizon, is the most needed feature in relation to the ICAAP/ILAAP and risk management objectives and to drive consistency. While climate risk is generally long-term in nature, introduction of more short-term climate risk scenarios (for both physical and transition risks) can help enhance the utility of currently available scenarios and align CSA more closely to regulatory climate risk stress testing (CRST) requirements as well (e.g., Bank Negara Malaysia (BNM) has 1-in-200 years flood risk in Malaysia scenario in 2024, Monetary Authority of Singapore (MAS) has 1-in-200 years flood risk in ASEAN scenario in 2024, Hong Kong Monetary Authority (HKMA) has short-term climate risk scenario (more frequent occurrences of extreme climate events, accelerated transition to a low-emission economy) in 2023). In this context, the shorter-term scenarios the NGFS is developing will be useful.

**Adding further details on sectoral and geographical dimensions to NGFS scenarios** would limit the need for supervisory adaptation and/or internal modelling to expand scenarios.

Granular data at a country level would help enhance the utility of currently available scenarios by incorporating country specific nuances. At the moment, many of the scenarios provided have regional data or data for some large economies.

Recently, supervisors have been providing bespoke scenarios for supervisory exercises or expectations which are tailored to the unique climate conditions specific to the regions.

Including the modelled impact of physical and transitions climate risk events on key concepts that are important for banks portfolios would be beneficial. So, beyond GDP this would include the impact on at least property prices via various channels (demand-supply gap due to damage to physical infrastructure, labour market shocks and economic slowdown, unemployment rate, inflation, interest rates and commodities beyond oil prices). More information on developments in the energy mix, corporate and public capital expenditure and anticipation of technological innovation would also improve the usability of anchor scenarios.

Q9. What alternative or novel approaches could supervisors consider for CSA and how might these be used for prudential purposes?

The supervisory assessment of micro prudential safety and soundness should be done in a holistic way to account for the different pillars of the framework (Pillar 1, Pillar 2 and the macroprudential framework) in which each plays a distinct role. Greater research is needed to understand the interactions between climate and other macroeconomic risk drivers for purposes of integrated scenario analysis or stress testing exercises. This would ensure that risks are not 'double-counted', multiplied or missed in stress tests.

CSA could be included along with the usual supervisory stress testing, if designed appropriately, as discussed in the DP and considering the comments above in this response.

As an example of supervisors' approach to address data limitations, we refer to the initiative by the Hong Kong Monetary Authority (HKMA). Given banks face numerous challenges in climate risk management, including a lack of physical risk-related data and analytical tools for conducting climate risk assessments, the HKMA has launched [the Physical Risk Assessment Platform](#) for the industry to conduct physical risk assessments and to improve the industry's understanding of physical risks. The Platform comprises an analytical tool which allows users to assess the potential impact of physical risks on residential and commercial buildings in Hong Kong under different climate scenarios and a database of more than 40 public data or data sources related to physical risk. BCBS could consider similar approaches and based on any learnings from the HKMA initiative, build on it and any other similar initiatives in other jurisdictions.

Q10. How could the effectiveness and efficiency of supervisory exercises be improved?

While standardisation may improve comparability of bank results for regulators and supervisors, it might also make it more difficult for banks to take idiosyncratic risks into account. Increased standardisation also has the potential to restrict innovations in CSA design and approaches.

Guidance on supervisor-led CSA should foster standardised methodologies for estimates and proxies, so as to ensure consistency among banks and improve comparability.

Regarding scenarios, it would be beneficial to consider scenarios that cover a greater number of markets and represent the uniqueness of each of them. To achieve better outcomes, it is necessary to consider macro granularity and coverage of both elements of both chronic and acute physical risk.

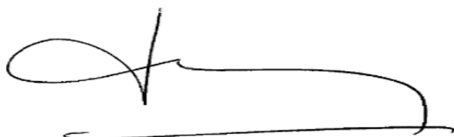
Another key area for consideration is the relationship between climate-related risk drivers and their impact on financial risk. It is important to understand how different climate-related variables affect macroeconomic variables such as GDP, unemployment, property prices and so on. Further research in this area would be beneficial, with the findings incorporated into the scenarios.

Many climate models are still trying to assess the first-order impacts of the financial risks that could arise from climate-related risks. Some of the second-order impacts are not yet considered or included in the modelling process. Again, more consideration is needed by central banks regarding second-order impacts that could drive or exacerbate macroeconomic weakness, and how these climate-driven impacts could flow through to the broader financial system.

Ensuring consistent guidelines for supervisors throughout the world will enhance the effectiveness and efficiency of supervisory exercises.

Thank you for considering our comments. We would be pleased to discuss our response at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to be 'Hedwige Nuyens', with a long horizontal flourish extending to the right.

Hedwige Nuyens  
Managing Director IBFed