

EBA/DP/2022/02

Version: 04 August, 2022

Deadline: 02 August, 2022

**BANKING
STAKEHOLDER
GROUP**

EBA Discussion Paper on the role of environmental risk in the prudential framework

The BSG appreciates the opportunity to comment on the EBA Discussion Paper on the role of environmental risks in the prudential framework.

The BSG commends the EBA for a very thoughtful and documented report and broadly agrees with the key principles that underpin the framework. The BSG notes that this document is a discussion paper, which provides a very preliminary summary of the state of play on the subject, but no prescriptive recommendations at this stage. As a result, the BSG comments below also remain principle-based and high-level, also due to the limited time allowed to develop this answer. In particular, the BSG has not been in a position to answer all specific questions raised in the discussion document.

The BSG notes that the EBA, through this report, continues to demonstrate the European leadership in the area of ESG risk management, following earlier reports and guidelines on loan origination, Pillar 3, etc. The BSG encourages the EBA to engage on these topics with other fora such as BCBS, FSB, NGFS, ISSB, EFRAG etc., in order to ensure that the prudential standards are developed consistently at the global level.

Within the EU, this work also needs to take into account the broader legislative framework (Taxonomy Regulation, CSRD, EFRAG, etc...) as well as the supervisory approach (supervisory expectations, ECB climate stress tests, etc.). Consistency between level 1 texts, level 2 calibration, and supervisory implementation is key to provide the financial sector and, ultimately, the whole economy, with ambitious transformative incentives, in line with the “Fit for 55” program and the Net Zero objective for 2050, to which European banks are fully committed to contributing.

Our answer is structured in three sections:

- *Principles, Premises and Challenges*
- *Measurement Challenges*
- *Priorities for future work*

Principles, Premises and Challenges

a. A risk-based, not a policy-based approach

The BSG agrees with EBA that “Prudential regulation should remain risk-based and evidence-based”. The anchor of the prudential framework must remain risk-based, as rightly pointed out by the EBA in its discussion paper.

This however does not mean that supervisors should only act on this risk when they have the same level of certainty about this, and the BSG welcomes the active involvement of European regulators and supervisors on this subject in the last few years. As we explain below, given the new character of ESG-risks (we have never experienced climate change before) this may never be the case. For this reason we agree that supervisors need to act as they have done before in times of high uncertainty, act pre-emptively according to the precautionary approach. The precautionary principle mandates supervisors to err on the safe side and act on incomplete information and in a discretionary manner: better roughly right than exactly wrong¹. This principle is well recognized in the EU practice. It is defined in the EU Treaty under Article 191² and its use was clarified and reinforced by the European Commission³.

The only consideration of the characteristic of a transaction being sustainable or not does not generally imply a lower or higher credit risk. Even though unsustainable lending does generally carry a higher transition risk. See below in section 2 for more discussion about measurement challenges.

Non-risk-based Pillar 1 adjustments, such as a Brown Penalizing Factor or a Green Supporting Factor are envisaged, notably by co-legislators, as potential incentives for banks to accelerate the transition of their clients. There are different views, however, as to whether such policy incentives would be the most efficient to capture the externalities related to climate risks. Some members of the BSG are of the view that adjusted risk weights for exposures to activities that may be expected to become unviable due to environmental factors would be an appropriate instrument of pricing in the associated higher, and accelerating risk, in particular credit risk, whereas others believe that capital charges on corporates’ behaviours may be too indirect to generate a significant acceleration of corporates’ transition, and that the underlying shared objective of pricing climate-related externalities may be better addressed through public policies such as carbon pricing, rather than through banking regulation.

b. Climate as a risk driver

We also agree with the EBA proposal that ESG risks are not a distinct separate risk-type, but rather ‘risk drivers’ that may impact “traditional” categories of risks such as credit, market, operational or strategic risks. We share BCBS’s and EBA’s view that climate factors are relevant especially for credit risk, with a potential positive or a negative impact. **Given the nascent nature of the collective understanding of how the climate risk drivers may impact these traditional risks**, the BSG acknowledges the difficulty of defining a regulatory capital treatment. There is, however, a significant

¹ See F. Elderson, *Overcoming the tragedy of the horizon: requiring banks to translate 2050 targets into milestones*, 20.10.2021; J. Key, M. King, *Radical Uncertainty: Decision Making Beyond the Numbers*, Norton & Company, 2020.

² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12016E191>

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:l32042>

body of research pointing to the elevated risk of certain asset categories, such as assets related to fossil-fuel exploration and extraction, becoming economically unviable if international commitments to limiting climate change are honoured (“stranded assets”)⁴, and to the extent that such companies do not engage into adequate transition strategies

At present, the prudential framework is calibrated on the basis of historical data. Climate-related risks are forward-looking, non-linear and highly uncertain. In its report on capturing risk differentials, the Network for Greening the Financial System (NGFS) acknowledged that “...conventional risk differential analysis based on historical data are backward-looking and unable to fully account for the potentially longer time horizon, the uncertain and non-linear nature of the impact and the likelihood of materialisation of climate related risks.”⁵

Given the gaps in the evidence-base, necessary data, and methodology, the BSG agrees that it is very challenging, at this stage, to calibrate risk parameters such as PDs and LGDs, in credit risk, taking into account climate-related risks drivers. This holds even more for social and governance-related impacts. **As long as robust risk-based methodologies have not been established and experienced**, reliable counterparty data is available and the results of supervisory exercises are not stabilised, it is hard to establish quantified adjustments to existing Pillar 1 capital requirements. At the same time, the BSG is mindful that the comprehensive body of research which informs recent international agreements on mitigating climate change, including but not limited to the work of the Intergovernmental Panel on Climate Change (IPCC), testifies to a demonstrable, and accelerating incidence of climate-related physical and transition risks. The existing Pillar 1 framework may not be designed to adequately capture the full loss potential attributable to such environmental risks. **Robust risk-based methodologies would be needed** in due course in order to assess and quantify potential adjustment to existing Pillar 1 capital requirements. Other aspects of the prudential framework may be better suited to capture those risks in a more risk-sensitive manner, for example climate scenario analysis (see below)

c. Taxonomy and transition plans

If policy-based Pillar 1 capital adjustments were to be chosen by European co-legislators, they would, likely, be based on the alignment of exposures to the European Taxonomy. However, the European Taxonomy, as explained by the EBA in the discussion paper, and earlier work on Pillar 3, is not per se a risk management tool, but only a classification tool, which only classifies activities, not entities. Potential prudential adjustments to Pillar 1 should be made on the basis of a more differentiated approach in order to prevent unintended effects.

Implementing Pillar 1 adjustments based solely on the EU Taxonomy would hamper EU banks’ ability to finance the transition, by creating an incentive to finance exposure that is already “green”, while avoiding financing companies that are currently not green, but may be in urgent need of investments to transform their business model. At the same time, however, capital requirements for exposures

4 References to relevant research are included in IPCC, Sixth Assessment Report, Chapter 15, p. 15-49. See also G.Semieniuk et al., Stranded fossil-fuel assets translate to major losses for investors in advanced economies, 26 May 2022.

5 NGFS, Capturing risk differentials from climate-related risks: A Progress Report: Lessons learned from the existing analyses and practices of financial institutions, credit rating agencies and supervisors, May 2022.

linked to activities that may become unviable, either as a direct result of climate change or indirectly, due to the impact of internationally accorded climate mitigation policies, should adequately reflect their higher risk, taking into account the transition plans of the entity.

The concept of increasing banks' capital requirements for exposures towards high emitting corporates requires further differentiated consideration. While banks need to be able to finance the transition of their clients, in a context of increasing financing needs to support the economy's transformation shift, they should be incentivised, at the same time, to thoroughly consider the risk of clients' assets becoming "stranded" due to climate-related considerations and to incorporate that risk into their quantitative assessment of the cost of risk which may materialize in case the entities do not implement adequate transition strategies over the considered horizon. The BSG notes that this approach underpins the various exploratory climate scenario analysis, including the recent ECB one, which quantifies the increase in risks by sector in a dynamic balance-sheet approach aiming at capturing transition.

The BSG notes that the European economy is financed at about 75% by bank lending. The role of banks in the financing of the green transition is essential for the EU to reach its ambitious goal of "Fit for 55". Changing the allocation of financing flows toward a more sustainable economy requires incentivizing banks to focus on accompanying the transition, rather than on solely financing taxonomy-aligned exposures. That is why the adoption and disclosure of transition plans, based on robust standards and verifiable data and commitments, is essential, as currently being defined by EFRAG.

Last, in a globalised economy, increases in EU banks' prudential requirements could result in a substitution of the financing, which may be partly taken over by **non-EU banks and/or non-bank players**, sometimes subject to less stringent regulatory standards. This may put the related risks beyond the reach of EU regulators and supervisors. The EU taxonomy, which has not been finished, is not directly applicable to other countries and some jurisdictions have introduced their own taxonomies. Therefore, the application of a taxonomy-based requirement to global banks would be difficult unless equivalent measures are applied internationally and across-sectors.

d. Double Materiality and international convergence

The BSG fully supports the double materiality approach as regards climate-related risks. While this concept continues to be debated at an international level, we are comforted by the steps taken by the ISSB and, to a lesser extent the US SEC, which includes in the disclosure framework the risks linked to the impact of the entity on the environment and people.

While such impact is only implicitly referring to double materiality, we believe it is an important step in the right direction, that the EBA should welcome, with the view of ensuring comparability. In any case, the quality of data and the maturity of methodologies has to be ensured in order to reflect this double materiality properly.

We encourage the EU institutions to continue their cooperation with the ISSB to fully incorporate the double materiality concept into its disclosure standards given that the current view on disclosing environmental impacts is based on financial materiality considerations only.

e. Role of Political Authorities

European Banks are committed to contributing to achieve the objective of net-zero greenhouse gas (GHG) emissions in the EU economy by 2050 but they cannot be the primary enforcers of the EU climate policy.

There is a **political responsibility in defining the relevant industrial and fiscal policies** to ensure an orderly transition and to limit transition and physical risks. EBA also strengthened in the Discussion Paper that ‘The primary responsibility and most effective tools for dealing with environmental-risk-related externalities lie within the remit of political authorities’.

In this context, the priority is the definition by the European Union of a detailed transition pathway towards a decarbonized economy by 2050, at a granular level, by the industrial sector and by country, considering the economic and social implications of a successful transition.

f. From Climate to ESG

The BSG supports that the risk management framework should encompass not only climate but all ESG-related risks. Biodiversity, nature-related, and social issues are also essential for a sustainable future.

However, while climate risks have been under scrutiny since 2016, with the first recommendations by the TCFD, and then with numerous initiatives at an international level, and European level, including climate stress tests, other ESG risks are only now starting to be explored (cf initial proposal for enhanced taxonomy by the EC Platform for Sustainable Finance, Taskforce for Nature-related Financial Disclosure, ...).

While science-based analysis on these topics is beginning to emerge, the transmission channels from those evolutions to banking risks are much less mature. Therefore, the BSG does not have a position on how to incorporate non-climate ESG risks into the prudential framework.

Measurement Challenges

g. Backward-looking vs forward-looking

As mentioned by EBA, one of the challenges to including ESG risk drivers in the prudential framework, is that the prudential framework is based on a backward-looking framework.

Calibration of inputs to the capital requirement is based on observed past losses (PDs and LGDs in the credit risks, observed market valuations in market risk, and past operational losses for operational risks.)

As regards ESG risks, they are by nature forward-looking and linked to consequences such as global warming that are only starting to materialize, albeit at an increasing pace.

The BCG takes note of the overall conclusion reached by the NGFS that *“further focusing on risk differential analysis through a backward-looking approach might not be the way forward to adjust the prudential framework.”*⁶ The development of measurement methodologies for climate-related risks should draw on the recommendations of the NGFS and focus on forward-looking approaches and on establishing uniform and robust standards for data and metrics.

h. Horizon

At present, the prudential capital framework is designed to cover unexpected losses with a time horizon of 1 year, on a static balance-sheet assumption.

In the case of climate risks, horizons to consider are much longer, including medium term (3/5 years) and very long term (10/30 years). Therefore, the current Pillar 1 framework is not fit for purpose to measure climate risks. Given the materiality of ESG risks this means that the current Pillar 1 framework needs to be adapted.

i. Risk differentials: risk vs uncertainty

Given its forward-looking nature, it is currently impossible to disentangle and quantify the degree to which climate risks may have played a role in past observed losses. Therefore, it is unlikely that analysis of historical data will deliver reliable conclusions about the existence of risk differentials.

An interesting approach is presented in the article “Finance, climate-change and radical uncertainty: Towards a precautionary approach to financial policy” by Hugues Chenet, Josh Ryan-Collins and Frank van Lerven, *Finance, climate-change and radical uncertainty: Towards a precautionary approach to financial policy*, Ecological Economics 2021, vol. 183, C.

As a starting point for a reconsideration of the appropriate conceptual framework for dealing with CRFR, it's worth defining more precisely what is meant by 'risk'. Risk is generally approached in economics and financial modelling to mean 'probabilistic or stochastic risk', implying random

⁶ NGFS, *Capturing risk differentials from climate-related risks: A Progress Report: Lessons learned from the existing analyses and practices of financial institutions, credit rating agencies and supervisors*, May 2022, p. 55.

outcomes with knowable probabilities (Knight, 1921). Assessing risk predominantly involves employing probabilistic density functions in statistical or econometric analyses, based on forward-looking projections of past data, to make predictions about the economy (e.g. Chenet et al., 2015; Thomä and Chenet, 2017). As such, the future is essentially conceptualised as a replication of the past (Davidson, 1988; Danielson, 2003). In contrast, 'uncertainty' refers to a situation where there is no basis whatsoever upon which to form any calculable probability (Keynes, 1936): 'Uncertainty in this account arises when the probability relation is numerically indeterminate and non-comparable to other probability relations' (Lawson, 1985, p. 914). Under situations of uncertainty, the future is unknowable and unpredictable, and thus non-ergodic.

j. Internal models vs Standardized Approaches

The EBA discussion paper also identifies the challenge of incorporating climate-related risks in Standardized approaches, which are used by a majority of mostly smaller EU banks. In this case, RW are set in a standardised way based on external ratings of counterparties or by applying a regulatory prescribed risk weight for unrated counterparties. Adjusting them, in the absence of statistically sound risk differentials data, would also be quite challenging. These models are based to a great extent on the use of external credit rating, which are being adapted to incorporate sustainability risks.

The same issue applies to non-risk-based prudential metrics such as the leverage ratio and the liquidity ratios.

The discussion paper also addresses the challenges of integrating environmental aspects into internal models. Even if internal models, as described, are designed to be more risk-sensitive than standardised approaches, the objective of appropriate, evidence-based risk measurement of counterparties and exposures should remain in focus here as well. The BSG agrees with the EBA's assessment that forward-looking elements that are incorporated into the design of the Pillar 1 IRB framework based on available empirical evidence of the impact of climate change and environmental degradation would be preferable to subjective assessments, which could give rise to undue variability among institutions.

Priorities for future work

Some BSG members believe that further work needs to be undertaken on potential Pillar 1 capital adjustments, while others believe that this approach is not the most conducive to capture the climate-related risks. In the meantime, the BSG recommends focusing on improving the Pillar 2 approach to better capture these risks (in addition to the Pillar 3 disclosure requirement, already defined, and which aims at implementing a market-based pressure through transparency).

Such Pillar 2 approach could have 3 components:

- A qualitative approach, through the SREP, around the inclusion of ESG risks in the bank's risk management processes, which could also include transition planning
- A forward-looking approach, through climate scenario analysis, with the view of assessing vulnerabilities and appropriateness of transition plans
- A potential quantitative approach, to address excessive concentrations

k. Client engagement / loan origination / supervisory expectations

The first and main lever for banks to influence the investment strategy of their clients is client engagement. From this perspective, the European prudential framework is already established, with the introduction in 2019 of ESG risks in the Loan and Origination Guidelines. Implementation of those guidelines is underway, under strict supervisory oversight.

In addition, the ECB has issued in 2020 its supervisory expectations as regards the inclusion of ESG risks in the bank's risk management. Such expectations are broader than loan origination, and also include the governance of the ESG risks, the inclusion in the Risk Appetite framework, and regular reviews up to the Board level.

Following a self-assessment by banks against those supervisory expectations, the ECB has performed a horizontal review, set remediation actions, and published a first report showing that, while obviously, banks are in the process of implementing their risk management framework, progress is being made across the board.

It should also be noted that mainstreaming ESG risks at the origination level raises challenges and opportunities:

- Upskilling of the whole origination structure,
- Capacity, by incorporating ESG questionnaires at origination, to make proactive proposals to suitable clients, as regards financing and investment products (green bonds, sustainability-linked loans, sustainable investment products, ...).

Consequently, this approach is likely to be the most efficient to accelerate the reallocation of flows toward sustainable activities.

I. Scenario analysis best suited to identify vulnerabilities

The BSG is supportive of climate scenario analyses, which are by design well suited to apprehend climate risk drivers, given their forward-looking nature. In Europe, several industry-wide exercises, notably by the French supervisor, ACPR, in 2020, by the EBA, and by the ECB, which recently published its findings.

- **Climate scenario analyses are useful tools to capture changes in business models that banks will need to undertake** in climate scenarios. Indeed, transition scenarios may result in a rebalancing of economic activity across sectors and, within sectors, across counterparties. Climate scenarios are not designed, like traditional stress test scenarios, to measure losses, and thus capital, in adverse macroeconomic circumstances. Indeed, some sectors or players in sectors can be expected to **benefit** from climate change. Climate scenarios are designed to anticipate sectoral evolutions that climate change will trigger and to help banks adjust to these changes accordingly, by defining appropriate risk mitigants, including transition plans.
- The horizon of climate change and climate scenarios is also radically different from that of capital sizing stress tests. There are **various initiatives to develop climate scenarios, such as those undertaken by the NGFS⁷ or the IEA⁸**. However, while welcome, these scenarios are **still incomplete. In particular, they do not offer a complete scenario framework including the modelling and projection of industrial and technological developments, as well as their translation into macro-economic variables. Besides, physical risk scenarios need to be well adjusted to the reality of the different geographies and sectors⁹, at a very granular level. Until this is achieved, scenario analysis may be perceived as exploratory and hypothetical or even unrealistic on short-term horizons and not suited for capital sizing.**
- The results published recently by the ECB of its 2022 climate stress test confirm the multiple challenges that both supervisors and banks face in developing reliable and plausible supervisory stress test exercises. The ECB notes that while banks make progress in developing climate stress testing infrastructures, many challenges remain for coherent results to be produced. Data availability and model developments remain unequal among banks, which is more a reflection of the specificities of climate risk (absence of historical observations, lack of uniform reporting of climate data by clients and, in the case of GHG emissions, lack of a uniform framework to report scope 3 emissions in particular) than banks' reluctance to invest in climate stress testing frameworks, but also differences in business models, and in supervisory approaches
- In addition, the time horizon of climate change inherently brings uncertainty to projections in climate scenarios. The ECB notes in its publication report that, as far as the 30-year transition scenarios are concerned, "it should be borne in mind that the 30-year projections are exploratory and subject to significant uncertainty. Therefore, these long-term loss projections should be interpreted as a qualitative yardstick for the direction of travel rather than as a robust quantitative measure." The ECB also notes that, in the long-term scenarios, "the aggregate pattern of loan loss

7 Network for Greening the Financial System

8 International Energy Agency

9 E.g. European Environment Agency [Report No 1/2017](#) presents climate change and impacts for the main biogeographical regions in Europe.

projections over time is masked by notable differences across banks concerning projected losses in the long term". This is particularly true as banks make different assumptions in balance sheet projections under a dynamic balance sheet methodology, which is the preferred option in 2050 projections in order to capture the business model dimension of climate stress testing.

- Most regulators acknowledge, that the exercises are not robust enough yet in terms of data, scenarios, and methodologies. A progressive and iterative development of such methodologies, scenarios and data would enable banks to strengthen their climate stress testing frameworks (for example through the building of risk and IT infrastructure and the development of climate-specific scenarios), move from exploratory exercises to risk management and mitigation and effectively continue to include climate drivers in their Pillar 2 frameworks.
- As a conclusion, climate scenario analysis should not be seen as an exercise to define an additional capital buffer, but rather as a way to identify portfolio level vulnerabilities, and to assess which risk mitigating measures are necessary, e.g. to which extent the bank's transition planning is a sufficient mitigant to reduce transition-related vulnerabilities. Given the exploratory stage of the climate scenario exercises and the fact that these cannot be used for drawing capital adequacy conclusions, these exercises cannot be yet viewed as a fully-fledged quantitative prudential tool, but are also a major incentive for participating banks to develop their internal capabilities, and for supervisors to weigh on preparedness, through the qualitative SREP process, which is an essential pillar of the prudential framework

m. Concentration risk: addressing individual or sectorial concentrations in high emitting / not transitioning exposures

- Given that microprudential approaches require further investigation to address climate-related risks, another option to be explored could be the macroprudential framework, including both the possibility to implement a macroprudential buffer, as well as more targeted, case-by-case measures. However, it should be taken into account that macroprudential measures should only cover what escapes to the micro-prudential ones, and that these are still far from being defined, so a detailed analysis is needed first.
- The potential interplay between macroeconomic cycles and climate risk factors has not been established, so **the use of macroprudential tools in this area is questioned by some policy makers**. In February 2022, the Financial Stability Institute ('FSI') highlighted in its Brief No. 16 'The regulatory response to climate risks: some challenges' that applying the macroprudential framework to systemic climate-related financial risks is likely to be ineffective and potentially counterproductive for financial stability. It also notes that 'macroprudential measures aimed at reducing exposures to intensive carbon-intensive firms and sectors may not always be conducive to reducing aggregate climate-related financial risks. The FSI argues, in particular, that a significant increase in capital requirements for brown exposures, by curtailing the availability of credit to intensive carbon-intensive industries, would increase the vulnerability of those sectors and hinder affected firms from adjusting their business models'. Ultimately, a macroprudential buffer linked to climate could thus delay the financing of transition by banks, delay transition as a result and increase the potentially systemic nature of climate risk and financial stability as a result. Some

members of the BSG, by contrast, maintain that a forward-looking approach to prudential requirements necessarily implies accounting for the additional risk of carbon-intensive exposures becoming unviable. In their view, targeted adjustments to cover the potential losses are prudent and necessary to preserve financial stability. In their recent report¹⁰, the European Systemic Risk Board and the ECB, noted that a macroprudential response may be warranted in view of accumulating evidence of the systemic dimension of climate-related financial risk.

- **A climate-related risk concentration framework, leveraging on the existing ones for pillar 2 and/or large exposures, could be useful** to monitor specific areas of concentration and take actions, as relevant, to prevent some financial institutions from unduly accumulating exposures to climate-related risks. However, any potential measure such as concentration limits should be cautiously considered to avoid harming specific regions or sectors and impeding efforts to scale up transition finance to sectors that need it most.
- Irrespective of the sector, **clients demonstrating a strong willingness to transition, with solid transition plans and commitments to reach net-zero by 2050 should be supported** and best-in-class players should have incentives to pursue their transition shift. In order to establish transparency and comparability of information and also enable banks to assess the progress made by their clients to transition, robust standards for transition plans, including for banks, should be established in the EU and globally, and the BSG fully supports the work of EFRAG and ISSB in this crucial area.

¹⁰ ECB/ESRB Project team on climate risk monitoring, The macroprudential challenge of climate change, July 2022.

Conclusion

- The climate mitigation action now and during the decades to come will determine the level of climate change over the second half of the century. Therefore, the immediate and upcoming uncertainty is mainly about mitigation actions themselves, i.e. how to conduct the transition to net-zero while insuring financial stability and a just transition. Thus, transition risk is subject to considerable levels of uncertainty, notably due to the human and behavioural factors at stake¹¹. Yet, the cost benefits of a timely and orderly transition are clearly recognized. Therefore, future prudential measures should increasingly incorporate forward-looking perspective.
- **The focus should remain on incentivising banks to conduct adequate risk management and creating a balanced policy environment that encourages banks to recognise emerging environmental risks without creating disincentives and impediments to financing the transition.** The BSG does not see a need to depart from the core risk-based foundations of the prudential framework or to introduce subjective choices. The prudential framework should be aligned with broader policy objectives while avoiding potential unintended consequences.
- To cope with the **challenges associated with time horizons, data, and methodologies, we believe that the banking industry together with regulators, supervisors and other stakeholders should pursue dialogue and collaboration factoring in** technical work and scientific research benefitting from industrial and sectoral experts.
- **Scenario analysis is an appropriate tool to assess the consequences of climate change in various scenarios and anticipate necessary business model changes. However, given that climate scenario analyses remain at the exploratory phase, it is far too premature to size capital buffers on that basis.** Climate scenario analyses may need be complemented by other prudential tools, such as the existing origination guidelines, the strong supervisory expectations set by ECB, and a potential concentration framework.
- Banks should keep their **ability to finance the transformational shift of the economy** and the sizeable needs stemming from the transition plans expected from public Authorities.

¹¹ Ecological Economics, see above