Finance Watch response to the European Banking Authority
Discussion paper on the role of environmental risk
in the prudential framework

General comments
Finance Watch welcomes the comprehensive work the EBA has conducted so far to deliver on its mandate and investigate a potential dedicated prudential treatment of exposures substantially associated with environmental and/or social objectives and those subject to environmental and/or social impacts. We appreciate the EBA’s risk-based approach and recognition of the specific features of the climate-related financial risks. However, we see a fundamental inconsistency between these and some other considerations and conclusions such as the ex-ante discussion about keeping the overall level of capital requirements unchanged and reluctance to advise on possible actions in the absence of historical empirical evidence.

In our comments below, we concentrate on the environmental, in particular climate risk component, as this is the most urgent risk to be addressed from the planetary and financial stability perspective.

✅ Core principles and double materiality
We agree with some of the core principles of the approach taken by the EBA such as adherence to the risk-based perspective when deciding on the appropriateness of dedicated prudential treatment for the exposures substantially associated with environmental and/or social objectives and those subject to environmental and/or social impacts and considerations; consideration of the forward-looking and non-linear nature of environmental risks.

We welcome the consideration of the double materiality of climate-related risks, which recognises that environmental materiality eventually translates into financial materiality, in particular at the systemic level. This is why we support the EBA’s recognition of the necessity for a holistic approach to prudential rule setting, which would also consider the role of the macroprudential tools and Pillar 2 to reflect certain elements of climate-related risks - in addition to the work on Pillar 1 prudential capital requirement, which are subject to investigation in the DP.

❌ Risk differential based on historical data
However, we disagree with the narrow interpretation of the suitable evidence for a dedicated prudential treatment being limited solely to historical empirical data, as the past will never be helpful to analyse climate-related financial risks, which are by nature forward-looking, unprecedented and increasing over time as long as they remain largely unmitigated. The DP
contains a contradiction when looking for a body of research evidencing possible risk differentials in the historical data and at the same time recognising specific features of climate-related financial risks such as "their multidimensional, non-linear, uncertain and forward-looking nature, [which] could lead to an underestimation of these risks, a phenomenon that will likely accelerate over time". Looking for a risk differential in the past data also largely ignores the fact that environmental risks are not (fully) reflected in the market prices, as recognised by the EBA itself (#36) and also by a body of scientific research (refer to the IPCC, Chapter 15).

Instead of making progress on prudential tools conditional on finding historical empirical evidence, the EBA analysis should instead be centred around using forward-looking data to establish risk differentials for certain exposure types, which are associated with particularly high environmental risks. This has also been recognised by the NGFS in its report on capturing risk differentials, which concluded that "...further focusing on risk differential analysis through a backward-looking approach might not be the way forward to adjust the prudential framework."¹

We see the EBA’s continued insistence on adhering to traditional ways of prudential rule-making as a fundamental lack of apprehension of climate-related financial risks, which in itself might have unintended consequences for financial stability in the future. Even if the worst risks of climate change might materialise over a long term, the trajectory of future developments is endogenously determined by the actions taken already today.

❌ Delivering on the EBA mandate: Deferring action

The comprehensive analysis included in the DP rightfully recognises that there are many elements and inputs in the accounting and prudential rules, where environmental, in particular climate risks, need to be considered. These include accounting values and loss provision calculations (parts of accounting frameworks), external credit ratings, collateral values, expert judgments to overrule certain prudential values on a case-by-case basis, Pillar 2 capital add-ons, as well as risk mitigation techniques, which might change the risk borne by financial institutions. However, incorporating climate risk considerations into all of these elements suffers from similar challenges at this stage, as is the overall challenge and the key question of the EBA mandate - how exactly this can be done in a credible and consistent manner given the known lack of structured historical data, forward-looking and radically uncertain nature of climate risk, non-suitability of existing quantitative methodologies to accurately model and measure the risk. Therefore, we find it disappointing that the EBA in its DP simply referred to the mentioned elements of the frameworks stating that climate-related risks might already be reflected, which can be viewed as an excuse not to face the challenge of defining Pillar 1 actions. In case the EBA is of the opinion that treatment of climate-related financial risks via the mentioned elements of the framework need to be enhanced, concrete actions should be suggested.

With respect to the interaction between the accounting and prudential frameworks, we welcome the EBA’s recognition of the complementarity of the frameworks, as well as the recognition of importance to monitor the evolution of the accounting rules to properly consider environmental issues. We additionally emphasise that this work should not impede further progress on the prudential side, which is crucial from the financial stability perspective.

¹ 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.
Strategically integrating environmental risk into the current prudential framework

Need to evolve the framework

We disagree with the approach taken by the EBA of attempting to perfectly fit climate-related financial risks into the existing prudential rules and approaches, which in itself contradicts the recognition of specific features of these risks, which distinguish them from other financial risk types and which the existing prudential frameworks are not fully equipped to deal with. However, this should not mean that the prudential rules cannot be meaningfully adapted in line with the core purpose of the rules - ensuring financial stability. Absence of timely action is a guaranteed path to disorderly transition and systemic risk materialisation.

Aspects where the existing prudential rules need to evolve to accommodate for climate-related risks include, in particular, i) time horizon for risk consideration, which can be longer in case of climate risk compared to the usual one-year horizon over which financial risks are quantified; this also implies using lower confidence intervals as long-term projections are subject to lesser degree of certainty; ii) necessity to consider forward-looking data to account for transition risk - instead of reliance on the historical statistical data to calibrate risk models, which implies working with transition plans and scenario projections; iii) necessity for precautionary measures to account for radical uncertainty associated with physical climate risk materialisation, which cannot be captured by the existing probabilistic models. Some of these points had been previously recognised by the BoE ("regime gaps"); iv) impossibility to backtest model performance relying on past data over short time horizons - this aspect is closely related and results from the ones described before.

💡 Forward-looking risk-based approach

Forward-looking data could be derived based on the climate scenarios by the IEA and IPCC with respect to the permissible levels of GHG emissions in order to achieve the global and the EU climate goals combined with sector- and company-level projections. This should take into account the ability of certain industries/companies/assets to transition and their readiness to transition, which can be inferred from the transition plans and their effective implementation. This approach would fully take into account transition efforts by banks’ counterparties and, by this, address the concerns raised in the DP with respect to potential "unintended consequences such as impeding the financing of transition activities" that would help certain sectors to become more sustainable. The approach would also necessitate robust and credible transition planning and regular monitoring of the progress achieved by the counterparties. Work on these is underway in the EU as part of the CSRD and supporting ESRS. Finance Watch and other NGOs have been advocating for mandatory transition plans for financial institutions, subject to robust standards and supervision.²

💡 Proposed actions based on the existing evidence

Applying the above logic of a forward-looking perspective allows to identify specific cases of particularly high climate-related financial risks in certain industries such as the fossil fuel industry. Fossil fuel reserve and resource estimates exceed in equivalent quantity of CO2 with

virtual certainty the carbon budget available to reach 1.5°C and 2°C targets. The International Energy Agency (IEA) concluded that there is no room for new fossil fuel exploration if emissions are to reach net zero by 2050, as the demand for fossil fuels will drop sharply – by 90%, 75% and 55% for coal, oil and gas respectively. Given the carbon budget of the planet is currently around 8 years, there is very limited time to address these issues and then act. There is an increasing body of research on the risk of stranding in this industry, which delivers a clear case for a dedicated prudential treatment of fossil fuel exposures. It is very important to note that a dedicated prudential treatment for fossil fuel exposures, which we support, does not represent an arbitrary “adjustment factor”, as it is discussed in part 5.4 of the DP. Such dedicated prudential treatment is based on the forward-looking risk-based considerations, as already outlined above.

The statement made in the DP (paragraph 96) that “the link between higher transition risks and lower creditworthiness cannot be established at the moment, with inconclusive results of the existing research” ignores the fact that transition has not happened yet so that the associated risks have not yet materialised, which means that the risks are effectively mounting on the banks’ balance sheets. Specifically with respect to the carbon intensity of the banks’ portfolios as a proxy for transition risks, the ESRB/ECB report from 26 July 2022 stated that “no meaningful reduction in emission intensity in the loan portfolios of euro area banks has taken place in recent years, despite the falling carbon intensity of firms”.

❌ Economic policy perspective in the prudential framework

The EBA’s recognition of the necessity to adhere to the risk-based approach when designing prudential rules contradicts the question raised in the DP if a possible dedicated prudential treatment of environmental risks should be overall capital requirement neutral: Given the lack of evidence that climate-related financial risks have been properly reflected in the past, let alone overestimated for any exposures, offers no room for downgrading capital requirements for any exposures based on environmental risk considerations. The fact that some types of exposures might represent a relatively lower risk based on their environmental risk profile and overall contribution to mitigating systemic climate risk (e.g. energy efficient mortgages or renewables) compared to environmentally harmful exposures does not per se warrant preferential treatment relative to current standards. In order to recognise any potential difference in the risk profiles, environmental risks of higher risk exposures should be appropriately reflected in the prudential framework in the first place.

Further, the intention to take a risk-based approach is in contradiction to the EBA’s caution against avoiding potential unintended consequences of higher capital requirements, in particular possible impacts on transition financing. Whilst capital requirement increases may result in the increase of the cost of capital for the affected borrowers, from a prudential perspective this cannot be traded against solvency and financial stability considerations.

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4 Carbon Tracker: Unburnable Carbon: Ten Years On, 23 June 2022; https://carbontracker.org/reports/unburnablecarbon-ten-years-on/
5 References to relevant research are included in IPCC Sixth Assessment Report, Chapter 15, p. 15-49. See also G. Semeniuk et al., Stranded fossil-fuel assets translate to major losses for investors in advanced economies, 26 May 2022 https://www.nature.com/articles/s41558-022-01356-y.
6 ECB/ESRB Project team on climate risk monitoring, The macroprudential challenge of climate change, July 2022.
Credit risk standardised approach: Deferring action

With respect to the consideration of prudential treatment of environmental risks under the standardised approach, the DP effectively defers the conclusions on credit risk weights to separate input elements of the standardised approach framework such as external credit ratings, collateral (re-)evaluation, including valuation of immovable property as collateral, internal risk assessments (due diligence over external rating assessments and possible expert overrides), availability of insurance as credit risk mitigation. Whilst these elements play a decisive role in determining risk weights in accordance with the standardised approach, methodologically they suffer from the same challenges when dealing with environmental risks as the calibration of risk weights itself - these include data and methodologies availability, inability to capture non-linear and the radically uncertain nature of climate-related financial risks. Given these challenges, discretionary approaches are likely to result in heterogeneous and hardly credible outcomes.

Credit risk internal rating-based (IRB) approach: Not fit-for-purpose in the current design

The IRB approaches in their current methodological design are not fit for purpose to deal with climate-related financial risks, as they rely on structured past statistical data, which is not available, and distributional assumptions, which do not hold for climate-related financial risks such as using standard distributions functions\(^7\), calibrating and backtesting model parameters based on historical losses over short-term horizons. In the case of climate-related financial risks, historical data will never be useful to predict the future developments as climate change is a non-cyclical phenomenon and the risks are increasing over time. Thus, even if some elements of the environmental risks (potentially gradually developing chronic risks) might be already captured by the existing models, these potentially represent no more than a tiny part of the overall picture. We agree with the argument that applying model overlays based on assessments of forward-looking elements to compensate for the impossibility to quantify climate-related risks, would only result in undue variability among institutions, and other problems (see answer to question 17). Instead, regulatory mandated risk weights for certain exposure types would ensure comparability and credibility of effort to address the risks at the level of the whole banking system. As stated above, regulatory actions should start with exposure types where scientific evidence is sufficient such as fossil fuel exposures.

Credit risk: Leaving action to Pillar 2

We caution against leaving the treatment of climate-related risks completely to the Pillar 2 of the prudential requirements, in particular for those cases of exposures, where scientific evidence clearly warrants treatment under the Pillar 1. The EBA rightfully recognises that Pillar 1 requirements are common for all and, by this, guarantee consistency of risk treatment at the level of the whole banking system. This is of fundamental importance from the climate-risk perspective, where simultaneous collective action is the only way to tackle the problem at systemic level. We refer to our earlier publication on incorporating climate-related financial risk

\(^7\)https://www.bis.org/basel_framework/chapter/CRE/31.htm?d=date=20191216&inforce=20220101&publishe
d=20191215
into bank and insurance prudential rules\(^8\) for the detailed discussion on this subject. In particular, Pillar 2 models are subject to the same methodological challenges as discussed in the DP in relation to the Pillar 1 IRB approach, which would structurally limit their ability to reflect the specific features of climate-related financial risk when determining possible Pillar 2 add-ons. To reiterate, these include taking into account the non-linear impacts, tipping points and possibility of major economic disruptions, mapping transmission channels of climate change and losses to market changes and financial risks, accounting for longer term horizons of climate risk materialisation.

**Chapter 3 – Background and rationale**

**Q1:** In your view, how could exposures associated with social objectives and/or subject to social impacts, which are outside the scope of this dp, be considered in the prudential framework? Please provide available evidence and methodologies which could inform further assessment in that regard.

Without meaning to specifically comment on the methodologies to consider the risks from social factors in the prudential framework, an important distinction should be made between “purely” social factors as a source of risk and social risks resulting from the materialisation of climate-related risks due to their systemic nature. In particular, the discussion paper states “The continuous deterioration of environmental conditions implies heightened social risks, such as when physical events affect populations, exacerbate migration and social and political unrest…”. Whilst these are relevant social risks to consider, they are actually the consequences (chain reaction) of environmental risk materialisation at the systemic level. This aspect reinforces the case to address climate-related risks, including via considering climate impacts, which eventually materialise as a systemic risk (double materiality perspective).

**Chapter 4 – Principles, premises and challenges**

**Q2:** Do you agree with the EBA’s assessment that liquidity and leverage ratios will not be significantly affected by environmental risks? If not, how should these parts of the framework be included in the analysis?

- We agree that liquidity risks may not be immediately impacted due to the very short time horizons of liquidity risk management compared to the potential time horizons of climate risk materialisation. However, liquidity risk may become very relevant as a transmission channel of climate-related risk in case of major unexpected climate events, which might trigger sudden asset repricings & fire sales. Delayed and, thus, disorderly transition might also be a factor which can unexpectedly change the perspective on liquidity risk. This suggests that the assumptions about liquidity of certain assets as well as possible liquidity stress scenarios need to be scrutinised.

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- We do not agree that leverage ratios will not be significantly affected by environmental risks. Leverage ratios will be mechanically affected when climate-related losses occur and impact banks' balance sheets. This part of the framework should be included in the analysis by taking into account climate-related potential losses - both transition-related losses (stranded assets) and physical losses due to climate-related events and potential economic disruptions.

Q3: In your view, are environmental risks likely to be predominantly about reallocation of risk between sectors, or does it imply an increase in overall risk to the system as a whole? What are the implications for optimum levels of bank capital?

We disagree that environmental risks are likely to be about reallocation of risk between sectors, as this would imply that at the moment some sectors are subject to unduly high capital charges due to possible overestimation of climate risks. This is not the case, as there is no evidence that climate-related risks are systematically priced\(^9\) and considered in the prudential rules due to, among others, their specific features as mentioned by the EBA itself (radical uncertainty, non-linearities / tipping points, longer time horizons of materialisation).

The discussion about optimum levels of banks capital should be held separately and does not have a bearing on the necessity to reflect climate-related financial risks. As previously stated in the Finance Watch’s report on the Basel III reform,\(^10\) we disagree with the statement that the level of banks’ capital in the EU can be considered satisfactory unless it is supported by robust evidence across risk types. Moreover, risks in the banking system have grown since the Basel III reforms have been agreed upon due to the growing importance not only of climate risk but also risks related to digitalisation/cyber security, systemic risks associated with the growing non-banking financial sector / interconnectedness etc.

Q4: Should the ‘double materiality’ concept be incorporated within the prudential framework? If so, how could it be addressed?

Double materiality is relevant from the prudential perspective based on micro and macroprudential considerations:

- Microprudential - assets associated with high environmental impacts are likely to be subject to high transition risk, as governments implement their environmental commitments and policies

- Macroprudential - high environmental impacts materialise as a systemic financial risk as environmental/climate degradation lead to more extreme and frequent weather events.

An additional view on double materiality considerations as a transformative perspective seeking to reshape the financial system has also been put forth in a policy briefing paper by the International Network for sustainable financial policy insights, research and exchange

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\(^9\) IPCC Sixth Assessment Report, Chapter 15, p. 15-50.
(INSPIRE).\textsuperscript{11} This perspective can be viewed under the umbrella of systemic risk and precautionary approach to dealing with such risk (which is also incorporated in Article 191 of the Treaty on the functioning of the European Union (TFEU). In case climate-related financial risks are not incorporated in the prudential framework based on forward-looking analysis (which are, in turn, based on government policy commitments) in due time, we will see major risk materialisations via extreme climate events and possible rushed late transition policies, if at all, which will inflict major financial losses, amplified by contagion effects in the financial system.

Double materiality of climate-related risks calls for the evolution of microprudential framework to accommodate for their specific features (refer to our responses below), as well as for dedicated macroprudential tools to account for the systemic risk component. On the latter we refer to our response to the European Commission’s consultation on improving the EU macroprudential framework for the banking sector\textsuperscript{12}.

We recognise that the environmental materiality aspect has raised a lot of debate with respect to the most appropriate tools to address it, in particular interaction between prudential regulation and other economic policies such as carbon taxes and industrial policies. We emphasise that financial materiality is fed by environmental materiality and, therefore, the latter cannot be ignored when setting prudential rules. Whilst a prudential intervention may have similar effects as some environmental policies, that does not lessen the need for prudential action or mean that regulators can ignore their duty to prevent dangerous build-ups of risks in the financial system. Just as the existence of rules against fraud does not stop regulators from regulating on banks’ operational risk, the existence (or possibility of) environmental policies should not stop regulators from addressing climate related financial risks.

Q5: How can availability of meaningful and comparable data be improved? What specific actions are you planning or would you suggest to achieve this improvement?

Finance Watch sees the following actions necessary to improve availability of meaningful, reliable and comparable data on environmental, in particular climate-related risks:

- Support work on robust disclosure standards, including on the international level in order to ensure comparability of information - we refer to our responses to the ISSB\textsuperscript{13} and EFRAG\textsuperscript{14} consultation on climate-related disclosures
- Focus on establishing harmonised definitions of relevant forward-looking measures/proxies for climate-related risks
- Depart from concentrating on searching for risk differential in the past data, as the EBA itself acknowledges there is no well-structured past data (as there have been no harmonised definitions for riskier vs less risky exposures) and that climate-related financial risks will never be reliably measured using past data due to the ”[t]he specific characteristics of environmental risks and their direct and indirect consequences,

\textsuperscript{11}INSPIRE, Aligning financial and monetary policies with the concept of double materiality: rationales, proposals and challenges, 9 June 2022: https://www.lse.ac.uk/granthaminstitute/publication/aligning-financial-and-monetary-policies-with-the-concept-of-double-materiality


\textsuperscript{13}https://www.ifrs.org/content/dam/ifrs/project/climate-related-disclosures/exposure-draft-comment-letters/f/finance-watch-d66a2ec92-264e-4fc1-b5aab-b838c1931340/finance-watch-comment-letter-on-issb-exposure-drafts-for-ifrs-s1-and-s2.pdf

\textsuperscript{14}Work in progress as of this writing, to be published upon submission on 8 August 2022.
including in particular their multidimensional, non-linear, uncertain and forward-looking nature, [which] could lead to an underestimation of these risks, a phenomenon that will likely accelerate over time”.

Q6: Do you agree with the risk-based approach adopted by the EBA for assessing the prudential treatment of exposures associated with environmental objectives / subject to environmental impacts? Please provide a rationale for your view.

Finance Watch agrees with the risk-based approach, as the purpose of the regulation is to provide for solvent financial institutions to support the economy and overall financial stability. However, it is important to note that risk-based should not mean based on historical statistical data, as the DP rightfully notes that historical data will never be suitable to capture the specifics of environmental risks:

*However, due to the structural shifts created by environmental risks, the dependency on historical data and historical relationships between risk factors may by construction not adequately capture environmental risk dynamics. In most cases, existing estimation techniques cannot sufficiently measure forward-looking financial impacts, driven by (more frequent and extreme) physical events or by (sudden) transition tipping points, making the translation of environmental risks into financial risks and potential losses more difficult.*

This is the most fundamental insight to answer the core question in the DP. No matter how many advances in the availability, completeness and quality of historical data there will be, past risk differentials will never be a guide to the future climate-related risks, as climate change progresses and risks evolve in a non-linear manner and have a potential to create structural shifts.

EBA contradicts itself when discussing the intended risk-based approach, on the one hand, and puts forth economic policy considerations, on the other hand, in particular the need to finance transition: “If limitations were imposed on the financing of environmentally harmful sectors this could have unintended consequences such as impeding the financing of transition activities that would help these sectors to become more sustainable. This is particularly relevant if there are no credible low-carbon alternatives.” Whilst the transition financing considerations are legitimate, these should not be presented as a tradeoff to financial stability, which prudential regulation is supposed to guarantee. Arguably, any changes to prudential requirement are always accompanied by appropriate transition periods so that the situation where there is no “sufficient time for adjustments” is a speculation in the DP text (#21c).

We further refer to our response to question 21 for additional discussion on the topic raised by this question.

Q7: What is your view on the appropriate time horizon(s) to be reflected in the pillar 1 own funds requirements?

Given the specific features of climate-related financial risks, as mentioned above, the appropriate time horizon should be extended to the time of horizon commensurate with the global climate policy objectives, i.e. until 2050, with corresponding intermediate steps. This will allow to incorporate climate policy pathways and perform corresponding backward calculations to assess
the transition risks associated with certain assets, which will be affected. First and foremost, these are assets in the fossil fuel industry, on which the projections of climate science and implications from the policy perspective are the most clear, and subsequently assets in other highly polluting industries, which will have to undergo significant transformations and will be subject to transition risks in case the transition does not take place (refer to question 16 for further discussion).

Incorporation of this time horizon is indispensable in order to make climate risk management and mitigation possible at all. Sticking to the usual one-year, or any inadequate, horizon will inevitably result in a cliff effect of either delayed and disorderly transition or extreme climate event materialisation - both at a scale, which will no longer enable risk mitigation measures and will not allow for sufficient time to build capital buffers to prevent bankruptcies and a next round of bank bailouts. Time horizons to be taken into accounts have to be defined in the regulation, as the current practices shoer that time horizons, which financial institutions consider in their analyses differ, as do methods, scenarios and assumptions which they employ to come up with forward-looking methodologies to assess climate-related risks.\[^{15}\]

Q8: Do you have concrete suggestions on how the forward looking nature of environmental risks could be reflected across the risk categories in the pillar 1 framework?

Our response below concentrates on the credit risk component of environmental, in particular climate risk.

Forward-looking data could be derived based on the climate scenarios by the IEA and IPCC with respect to the permissible levels of GHG emissions in order to achieve the global and the EU climate goals combined with sector- and company-level projections. This should take into account the ability of certain industries/companies/assets to transition and their readiness to transition, which can be inferred from the transition plans and their effective implementation. This approach would fully take into account transition efforts by banks’ counterparties and, by this, address the concerns raised in the DP with respect to potential "unintended consequences such as impeding the financing of transition activities" that would help certain sectors to become more sustainable. The approach would also necessitate robust and credible transition planning and regular monitoring of the progress achieved by the counterparties. Work on these is underway in the EU as part of the CSRD and supporting ESRS. Finance Watch and other NGOs have been advocating for mandatory transition plans for financial institutions, subject to robust standards and supervision.\[^{16}\]

Applying the above logic of a forward-looking perspective allows to identify specific cases of particularly high climate-related financial risks in certain industries such as the fossil fuel industry. Fossil fuel reserve and resource estimates exceed in equivalent quantity of CO2 with virtual certainty the carbon budget available to reach 1.5°C and 2°C targets. The International Energy Agency (IEA) concluded that there is no room for new fossil fuel exploration if emissions are to reach net zero by 2050, as the demand for fossil fuels will drop sharply – by 90%, 75% and


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55% for coal, oil and gas respectively. Given the carbon budget of the planet is currently around 8 years, there is very limited time to address these issues and then act. There is an increasing body of research on the risk of stranding in this industry, which delivers a clear case for a dedicated prudential treatment of fossil fuel exposures. It is very important to note that a dedicated prudential treatment for fossil fuel exposures, which we support, does not represent an arbitrary “adjustment factor”, as it is discussed in part 5.4 of the DP. Such dedicated prudential treatment is based on the forward-looking risk-based considerations, as already outlined above.

The statement made in the DP (paragraph 96) that “the link between higher transition risks and lower creditworthiness cannot be established at the moment, with inconclusive results of the existing research” ignores the fact that transition has not happened yet so that the associated risks have not yet materialised, which means that the risks are effectively mounting on the banks’ balance sheets. Specifically with respect to the carbon intensity of the banks’ portfolios as a proxy for transition risks, the ESRB/ECB report from 26 July 2022 stated that “no meaningful reduction in emission intensity in the loan portfolios of euro area banks has taken place in recent years, despite the falling carbon intensity of firms”.

With respect to market and liquidity risk, we agree with the challenges outlined in the DP. As the prudential rules on measurement and management of these risk types are even less equipped to account for climate-related risk factors (in terms of shorter time horizons and model design relying on historical data and distributional assumptions), using forward-looking scenarios (derived from climate scenarios) to stress risk estimates seems to be a sensible approach. This would require a significant amount of work to ensure forward-looking scenario assumptions are conservative enough to reflect possible projected climate change developments and that scenarios account for interdependencies and feedback loops within the financial system. As mentioned in our response on credit risks, adopting a forward-looking approach would also require an evolution of prudential framework away from backtesting / measuring model performance based on the past statistical data.

Chapter 5 – Credit risk

Q9: Have you performed any further studies or are you already using any specific ESG dimensions to differentiate within credit risk? If so, would you be willing to share your results?

Refer to our response to questions 8 and 16. With respect to the attempts to find risk differential using past statistical data, it should be noted that this approach is conceptually incorrect when approaching climate-related financial risks. This has also been recognised by the NGFS in its

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19 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, https://www.nature.com/articles/s41558-022-01356-y.
20 ECB/ESRB Project team on climate risk monitoring, The macroprudential challenge of climate change, July 2022.
report on capturing risk differentials, which concluded that “...further focusing on risk differential analysis through a backward-looking approach might not be the way forward to adjust the prudential framework.”

As the DP rightfully outlines, climate change is a forward-looking and progressing phenomenon, whereby future developments will never be captured in the past data, no matter how advanced climate-related disclosures will be. Given the non-linearity of climate change and presence of the tipping points, disruptive climate-related events cannot be captured by the existing financial models (in particular using known distribution assumptions or extreme value theory).

Importantly, this has already been recognised by the NGFS in its report on risk differentials: “...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. For example, climate-related transition risks are expected to intensify in the next ten years due to accelerating actions and commitments by governments and private sector actors and are challenging to model.” Therefore, NGFS cautioned against using historical data to estimate risk differentials, as these data might underestimate the impact of climate-related risks.

Q10: What are the main challenges that credit rating agencies face in incorporating environmental considerations into credit risk assessments? Do you make use of external ratings when performing an assessment of environmental risks?

We refer to our response to the European Commission’s consultation on the functioning of the ESG ratings market and on the consideration of ESG factors in credit ratings, specifically part B section III of the consultation response.


Q11: Do you see any challenge in broadening due diligence requirements to explicitly integrate environmental risks?

The requirement to consider environmental risks in the internal credit risk assessment process is not new in the EU prudential framework, as the EBA Guidelines on loan origination and monitoring and the ECB Guide on climate-related and environmental risks for banks have been in place since 2020. Whilst the requirements to consider environmental risks on a case-by-case basis are a logical and meaningful component of internal credit risk assessment, it cannot be an ultimate tool to manage this risk in the view of data and methodological challenges and a lack of commonly established approaches. Leaving environmental risk considerations to the discretion of individual banks, will result in undue variability of approaches and lack of consistency in addressing the risk. Moreover, given the uncertainty with regards to the approaches, banks will have incentives to downplay the risk.


22 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.
Q12: Do you see any specific aspects of the CRM framework that may warrant a revision to further account for environmental risks?

Refer to our response to question 7 on the proposed extension of the relevant time horizon for the purposes of environmental risk considerations and response to question 8 on using the forward-looking approach.

Furthermore, due to the specific features of climate-related risks, they cannot be measured in the same quantitative manner as other financial risks are - based on assumed known distributions of losses, historically validated models and a high degree of statistical confidence. Distribution of climate-related losses is not known and will be additionally influenced by endogenous factors such as the government policies, including prudential regulation itself, and behaviour of financial institutions themselves. And while climate risk is certainly increasing over time, it is impossible to measure the pace and magnitude of this increase precisely and the confidence interval of prediction is increasingly wide the further into the future we look.23

Therefore, there is a need to revise the CRM framework in order to incorporate a longer time horizon of risk consideration, as well as forward-looking approaches to risk measurement based on projected decarbonisation scenarios.

Q13: Does the CRR3 proposal’s clarification on energy efficiency improvements bring enough risk sensitiveness to the framework for exposures secured by immovable properties? Should further granularity of risk weights be introduced, considering energy-efficient mortgages? Please substantiate your view.

In the light of the fact the prudential rules do not yet take into account environmental risks, any potential downgrades revisions of risk weights can only be introduced if risk weights are recalibrated based on empirical evidence - this is unlike the case for upward revisions of risk weights to price in the risks which remain underpriced. Whilst we maintain the view that energy efficiency improvements of buildings might bring reduction of credit risk due to lower energy bills for the owners/users of such buildings in the future, higher values of energy efficient buildings if government policies mandating minimum levels of energy performance are introduced, these factors cannot be an ex-ante reason for lower risk weights due to the fact that the current "baseline" level of capital requirements does not factor in environmental considerations explicitly.

Q14: Do you consider that high-quality project finance and high-quality object finance exposures introduced in the CRR3 proposal should potentially consider environmental criteria? If so, please provide the rationale for this and potential implementation issues.

We support considerations of environmental criteria to be included in Article 122a CRR on specialised lending exposures. In particular, in line with our proposals in the response to question 16 below, any project and object finance related to fossil fuel exploration, production and fossil fuel-burning power plants should not be eligible for any preferential treatment and should be excluded from the definition of high-quality project and object finance.

Beyond that, project contribution to financing transition could be considered as a separate criteria to evaluate if such projects contribute to the implementation of counterparties’ transition plans. The rationale hereby is the reduction of project- and company-level transition risk and contribution to mitigating system-level risk.

**Q15: Do you consider that further risk differentiation in the corporate, retail and/or other exposure classes would be justified? Which criteria could be used for that purpose? In particular, would you support risk differentiation based on forward-looking analytical tools?**

**Q16: Do you have any other proposals on integrating environmental risks within the SA framework?**

The immediate Pillar 1 measures should concentrate on credit risk capital requirement adjustments for those assets, the risks of which can be clearly assessed given the projections of the climate science, global Paris Agreement commitments and based on the forward-looking approach, which the DP recognises as the most appropriate one to evaluate climate-related risks. Finance Watch has developed proposals to reflect these risks using the existing prudential tools and the logic of the EU prudential regulation, refer to our reports (https://www.finance-watch.org/publication/breaking-the-climate-finance-doom-loop/; https://www.finance-watch.org/publication/report-a-silver-bullet-against-green-swans-incorporating-climate-risk-into-prudential-rules/).

The proposals differentiate between production and exploitation of existing fossil fuel resources on the one hand, and the exploration, expansion, production and exploitation of new resources on the other hand. Such differentiation is based on the risk profile of the respective projects:

- Assets associated with exploration, expansion and exploitation of new fossil fuel reserves will pose a particularly high financial stability risk and will, with near certainty, become stranded and lose 100% of their value. This is supported by the conclusions of the IPCC and IEA that there is no room for new fossil fuel exploration in the net-zero 2050 scenario. Therefore, prudential regulation should require that such exposures be entirely equity funded, i.e. impose a risk weight of 1250%.

- Assets associated with exploitation of existing fossil reserves are at a high risk of becoming stranded and increasingly depreciating. Therefore, such assets should be treated as the items currently associated with particularly high risk in prudential regulation and receive a credit risk weight of 150%, which is the highest class of risk weight for different types of credit risk exposures as per the CRR.

- For banks using internal models to determine capital requirements (IRB approach), the above risk weights should represent the effective floor when determining the capital requirements for fossil fuel exposures.

It is important to note that the proposed handling does not represent a so-called “adjustment factor”, as it referred to in the DP. The suggested dedicated prudential treatment is not based on the EU Taxonomy of sustainable activities nor on considerations of potentially harmful activities, which, as also stated in the DP, are not necessarily risk-based.
Instead, the suggested handling takes a risk-based approach and is a first step to identify assets at the highest risk of stranding based on the insights from climate science and the global Paris Agreement commitments. A significant body of literature has been developed quantifying volumes of asset stranding in the fossil fuel industry in particular, as they will be the first ones to be affected by transition. For example, refer to the recent research by G. Semieniuk et al.\textsuperscript{24} and also to the studies cited by the IPCC in its Sixth Assessment Report, Chapter 15\textsuperscript{25}.

Fossil fuel reserve and resource estimates (in equivalent quantity of CO\textsubscript{2}) exceed with virtual certainty the carbon budget available to reach 1.5\textdegree{}C and 2\textdegree{}C targets. The International Energy Agency (IEA) concluded that there is no room for new fossil fuel exploration if emissions are to reach net zero by 2050, as the demand for fossil fuels will drop sharply – by 90\%, 75\% and 55\% for coal, oil and gas respectively\textsuperscript{26}. Given the carbon budget of the planet is currently around 8 years, there is very limited time to address these issues and then act.\textsuperscript{27} As the IPCC stated: “This suggests that only less than the whole quantity of fossil fuels currently valued (either currently extracted, waiting for extraction as reserves or assets on company balance sheets) can yield economic return if the carbon budget is respected.”\textsuperscript{28}

It should be noted that the proposed measure seeks to address the most clearly identifiable climate-related financial risks. Further research is needed to assess transition risks of assets other than fossil fuel-related ones. Methodologies for this have already been developed. For example, Climate Policy Relevant Sectors (CPRS) is a classification of economic activities to assess transition risk, developed in Battiston et al. (2017) and refined over the years\textsuperscript{29}. Proxy indicators for transition risk should be forward-looking in their nature and consider the following two aspects:

- Ability of assets to transition, i.e. to what the assets in question are needed in the future sustainable economy and can generate economic return (stranding risk)
- Readiness to transition, i.e. transition progress achieved to undergo the necessary transformations, where assets cannot be used right away for the sustainable economy purposes. This aspect can and should be determined by means of developing and implementing transition plans, the establishment of which can be linked to the EU work on Corporate Sustainability Reporting Directive, as well as sustainable corporate governance and risk management as part of the Corporate Sustainable Due Diligence Directive and prudential regulation (CRR/CRD and Solvency II, on which Finance Watch advocated for the inclusion of mandatory transition plan requirements acting as a risk management tool).

\textsuperscript{24} G. Semieniuk et al., \textit{Stranded fossil-fuel assets translate to major losses for investors in advanced economies}, 26 May 2022, \url{https://www.nature.com/articles/s41558-022-01356-y}
\textsuperscript{25} IPCC, Sixth Assessment Report, Chapter 15, p. 15-49.
\textsuperscript{27} Carbon Tracker, Unburnable Carbon: Ten Years On, 23 June 2022; \url{https://carbontracker.org/reports/unburnablecarbon-ten-years-on/}
\textsuperscript{28} IPCC, Sixth Assessment Report, Chapter 15, p. 15-49.
Q17: What are your views on the need for revisions to the IRB framework or additional guidance to better capture environmental risks? Which part of the IRB framework is, in your view, the most appropriate to reflect environmental risk drivers?

There are significant limitations to what can be achieved via quantitative modelling in the IRB approach. Given the radical uncertainty associated with the realisation of climate risk, complexity related to non-linearities and tipping points, quantitative models will with certainty understate the potential financial impacts of climate change. This is why, as mentioned in our response to the questions above, we caution against “modelling myopia“ and emphasise the necessity for precautionary measures and qualitative judgement.

Therefore, possible revisions to the IRB framework should imply its evolution in terms of the overall approach. In line with our responses to questions 7 and 8 above, revisions to the IRB framework should incorporate the longer-term forward-looking perspective to analysing the credit risk associated with environmental factors. This would imply the revision of the core attributes of the internal modelling:

- requirements on the types of data used for model calibration - away from reliance on past statistical data towards forward-looking data derived from climate scenarios
- time horizons considered relevant for the risk assessment
- distributional assumptions - away from continuous and pre-defined standardised distributions towards non-linearity of climate developments where distribution of defaults and losses is not known
- backtesting - away from continuous backtesting based on historical data towards re-calibration based on forward-looking scenarios and transition progress achieved by each counterparty).

In case forward-looking elements are incorporated into the IRB framework (as discussed in the DP), this will make the backtesting based on historical data impossible, i.e. the problem of model performance results naturally. Therefore, attempts to fit such “models upgraded to account for environmental risks“ strictly into the existing IRB rules and model requirements are not meaningful.

In case any “upgraded“ IRB models, any model extension to account for climate-related risks are used, supervisory assessments could consider, among other things:

- Does it make assumptions from past data that might not hold up in future, for example about the correlations and trade-offs between physical risk and transition risk?
- Does it define risks adequately, for example if transition risk is considered narrowly as a risk of direct policy intervention it could underestimate other drivers of transition risk, such as market developments, technology, second-round effects of policies, and climate change-related impacts on customers, supply chains and adjacent sectors.
- Does it make realistic assumptions about the effects of climate change on economic activity? There would be an incentive to choose forecasts that under-estimate the macro-economic impacts of climate change despite the high levels of uncertainty, or that make assumptions based on past upswings and downswings and do not properly consider the irreversibility of climate change effects.
- Are the model’s assumptions about the materialisation of losses realistic? If it assumes that climate-related losses will follow a pre-defined continuous distribution over several decades, then the bank may be unprepared for larger losses, or groups of losses, that
occur as a result of non-linear and disruptive events, for example as environmental and other tipping points are crossed.

Q18: Have you incorporated the environmental risks or broader ESG risk factors in your IRB models? If so, can you share your insight on the risk drivers and modelling techniques that you are using?

Q19: Do you have any other proposals on integrating environmental risks within the IRB framework?

We would like to additionally comment on the possibility to use IRB model overrides. Special care is needed by supervisors in assessing IRB model overlays that claim to integrate climate risk. Model overrides can be potentially used to compensate for the factors that the current quantitative models are not capable of taking full account of such as double materiality, non-linear impacts, tipping points and the associated disruption risk, all sources and transmission channels of transition risk, uncertain trade-offs between transition and physical risks, high GDP impacts and double materiality / contribution to systemic risk. However, as mentioned in our response to question 17, the sheer complexity of such an assessment will render the conclusions highly debatable and the ultimate risk measurement unreliable.

Q20: What are your views on potential strengthening of the environmental criterion for the infrastructure supporting factor? How could this criterion be strengthened?

As per our responses above, we do not generally support any non-risk-based adjustment factors in the prudential framework. Nevertheless, if the infrastructure supporting factor is to be upheld in the CRR, n line with responses to questions 14 and 16, any infrastructure finance related to fossil fuel exploration, production and fossil fuel-burning power plants should not be eligible for any preferential treatment and should be excluded from the application of the supporting factor.

Q21: What would in your view be the most appropriate from a prudential perspective: aiming at integrating environmental risks into existing pillar 1 instruments, or a dedicated adjustment factor for one, several or across exposure classes? Please elaborate.

We support the risk-based approach in prudential regulation when integrating environmental risks into existing Pillar 1 instruments. However, we disagree with the very narrow interpretation of the notion of risk integration vs adjustment factors expressed in the DP. Whilst recognising the specifics of climate-related financial risks and inability of the current prudential rules to fully take these into account, the DP does not manage to depart from the stance that the only possibility to substantiate a risk-based approach is “traditional” prudential rule-making based on past statistical data and backward-looking calibration & validation. We see this as a fundamental lack of apprehension of climate-related financial risk, as this misses the following key points:

- The double materiality view on climate-related financial risk, whereby the environmental component is relevant in prudential rule-making not only to create incentives or disincentives for certain investments (as stated in the DP, paragraph 138). Quite the contrary, financial materiality is fed by environmental materiality. In other
words, attempting to address financial materiality without addressing environmental materiality is tantamount to deciding to ignore the root causes of climate-related financial risks.

- The so-called adjustment factors can and should be designed following the risk-based logic, as elaborated in our responses to questions 8 and 16. Forward-looking precautionary approach to rule-making should be the guiding principles in integrating climate-related financial risks into prudential requirements.30

Q22: If you support the introduction of adjustment factors to tackle environmental risks, in your view how can double counting be avoided and how can it be ensured that those adjustment factors remain risk-based over time?

Refer to our response to question 8 and 21. Validity of risk-based dedicated prudential requirements should be verified based on forward-looking projections for the economy, sectors, as well as individual counterparties based on their ability to transition and progress achieved over time.

In order to avoid double-counting, dedicated prudential requirements should be introduced in a uniform manner for the standardised and IRB approaches.

Chapter 6 – Market risk

Q23: What are your views on possible approaches to incorporating environmental risks into the FRTB standardised approach? In particular, what are your views with respect to the various options presented: increase of the risk-weight, inclusion of an ESG component in the identification of the appropriate bucket, a new risk factor, and usage of the rrao framework?

Q24: For the internal model approach, do you think that environmental risks could be better captured outside of the model or within it? What would be the challenges of modelling environmental risks directly in the model as compared to modelling it outside of the internal model? Please describe modelling techniques that you think could be used to model ESG risk either within or outside of the model.

Q25: Do you have any other proposals on integrating environmental risks within the market risk framework?

Chapter 7 – Operational risk

Q26: What additional information would need to be collected in order to understand how environmental risks impact banks’ operational risk? What are the practical challenges to identifying environmental risk losses on top of the existing loss event type classification?

Q27: What is your view on potential integration of a forward-looking perspective into the operational risk framework to account for the increasing severity and frequency of

physical environmental events? What are the theoretical and practical challenges of introducing such a perspective in the standardised approach?

Q28: Do you agree that the impact of environmental risk factors on strategic and reputational risk should remain under the scope of the pillar 2 framework?

Q29: Do you have any other proposals on integrating environmental risks within the operational risk framework?

Chapter 8 – Concentration risk

Q30: What, in your view, are the best ways to address concentration risks stemming from environmental risk drivers?

Q31: What is your view on the potential new concentration limit? Do you identify other considerations related to such a limit? how should such a limit be designed to avoid the risk of disincentivising the transition?

We note that the banks are already obliged to identify and manage different types of risk concentrations in their portfolio. Introduction of a new dedicated concentration limit for environmental risk drivers would make the requirement more specific and stringent. However, given the challenges associated with mapping all environmental risk drivers to the actual risks (i.e. transmission channels), additional considerations would need to be given to the exact design of such a limit, i.e. definition of the scope of exposures subject to it. Whilst some proposals have already been made in the literature (see, for example, https://www.lse.ac.uk/granthaminstitute/publication/preventing-a-climate-minsky-moment/), we emphasise that any potential concentration limit does not replace the necessity to have properly defined asset-level prudential requirements, just as the existing large exposure limit does not replace but complements credit risk weights.

Concentration limit would simply contribute to limiting an individual institution's exposure to climate-related risk factors, which does not replace the need for a proper capitalisation of existing exposures, i.e. adequate pricing of risks. Imposition of a concentration limit without asset-based capital requirement would also encourage a more even distribution of exposures to climate-related risk drivers across banks without reducing the overall systemic risk and providing for the resilience of the financial system. On its own, a concentration limit would thus move risks around the system but would not mitigate them directly or prevent further risk build-ups. By this, a concentration limit ignores the systemic dimension of double materiality.

We do, however, support a concentration limit as a possible additional/complementary tool to manage climate-related financial risks on top of the measures suggested in our responses to the questions above.

Chapter 9 – Investment firms

Q32: with reference to the three risk categories the ifr is based on (risk-to-client, risk-to-market and risk-to- firm), which of these could be related to environmental risks, and to what extent?
Q33: Should any of the existing k-factors incorporate explicitly risks related to environmental factors?

Q34: What elements should be considered concerning the risk from environmental factors for commodity and emission allowance dealers? Are there any other specific business models for which incorporation of environmental factors into the pillar 1 requirements of the IFR would be particularly important?

Q35: Do you have any other suggestions as to how the prudential framework for investment firms could be adjusted to account for environmental risk factors?