



Institute
and Faculty
of Actuaries

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BIS Basel Committee – Principles for the effective management and supervision of climate-related financial risks

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Key points

The IFoA welcomes the Basel Committee producing this document, but we would encourage a stronger note of urgency in the consultation. Early action to generate risk insights on emissions financing will reduce current risk levels at individual banks, and systemically.

Establishing an industry platform in which banks could collaborate to the greater good could accelerate the development of consensus views of good practice for climate change risk management. There is also scope for collaboration between the banking industry and the insurance industry, which has been addressing and evolving its understanding of climate change risk over a number of years now.

The availability of insurance is likely to decline with a changing environment, and supervisors and banks should factor in the indirect impact that climate change might have on their loan underwriting assumptions.

There is evidence that the economic scenarios supervisors use to test banks' balance sheets and that influence banks' strategies may well underestimate the impact over time.

We believe the document could mention the increasing impact that carbon pricing will have on the market sectors banks operate in.

We would welcome the inclusion of a principle around market disclosures, which could have a big effect on the priority and resources regulated entities devote to climate risk management. We also encourage the Committee to take steps to link remuneration to the implementation of the principles.

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General comments

1. The IFoA welcomes the Basel Committee producing this document, especially as it includes helpful guidelines to make it more likely that new processes will be implemented.
2. The press release for two preceding Basel Committee reports published in April 2021 states: ‘the reports conclude that climate risk drivers can be captured in traditional financial risk categories. But additional work is needed to connect climate risk drivers to banks’ exposures and to reliably estimate such risks.’ <https://www.bis.org/press/p210414.htm> . We welcome the current consultation which should lead to some of this additional work being carried out.
3. We would welcome a stronger note of urgency in the consultation. There is increasing confidence about the contribution of climate risk to economic costs. Risks are crystallising already, as examples such as the German floods and wildfires in Australia and California attest. Such events affect banks as much as other financial institutions.
4. The paper should emphasise the importance of taking immediate action on climate-related risks in order to maximise the longer-term impact such actions can have. Failure to take timely action on emissions facilitated by banks providing finance to their clients is likely to lead to more costly and disruptive remedial action at a later date, as well as earlier and more severe climate impacts.¹ Early action to generate risk insights on emissions financing will reduce current risk levels at an individual bank level, and systemically. Early action will also allow more time for more effective adaptation to future adverse climate impacts, many of which are hard to forecast at present.²
5. The continued existence of banks themselves in any familiar form could depend on how climate change develops. The consultation paper could acknowledge this more openly. Whilst it is natural to focus on measureable risk, there is also great uncertainty. Path-dependency as climate risks materialise is under-appreciated.

Q1. Has the Committee appropriately captured the necessary requirements for the effective management of climate-related financial risks and the related supervision? Are there any aspects that the Committee could consider further or that would benefit from additional guidance from the Committee?

6. We believe there is a compelling case for the Committee to consider a wider perspective than just ‘effective management’ of climate-related financial risks. In the following paragraphs we set out some ‘bigger picture’ issues we would encourage the Committee to take into account.

¹ We are unsure how much commitment there is amongst the banking sector to accept the implications of the International Energy Agency’s work on the 1.5 degree scenario, see: <https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits>

² The Bank of England has been a leading supervisor in addressing climate change risks, including as a steering group member of the Central Banks and Supervisors Network for Greening the Financial System

The importance of banking to society

7. The tone of the consultation paper is about the impact of the external environment on banks, but it is silent about the impact of banks on the external environment. To be effective, the management of climate-related risks needs to take account of both.
8. We believe reference could be made to the impact that carbon pricing, and its evolution, will have on the market sectors banks operate in. The large rise in Emissions Trading System prices over 2021 is an indication that carbon pricing will play an increasing economic role across all sectors of the economy and will have a significant impact on the creditworthiness of clients.
9. Banks have a crucial role in society. It is possible that the banking industry could respond to climate-related financial risks by stopping lending to certain sectors of society because the risk is too uncertain. An example could be communities or businesses whose premises become increasingly exposed to flood risk. In such circumstances political intervention might be required to ensure sectors of society are not left stranded. The consultation could perhaps comment on whether the management action to withdraw from a sector of a market is an appropriate option.

Collaboration between banks

10. The banking industry could benefit from applying more of the existing research on climate change risk drivers to their business models. One example is geospatial data, which the FSB reports is already being used in insurance: “Some insurers use geospatial data on the location of assets to ensure that their policies reflect the risk of extreme weather events”.³ It is particularly important for the banking industry to apply forward-looking, scenario-based research approaches, as we mention in the next section.
11. Establishing an industry platform in which banks could pool understanding and collaborate to the greater good could accelerate the development of consensus views of good practice for climate change risk management. We have seen this elsewhere: collaborative networks of pension funds and insurance companies such as the Institutional Investors Group on Climate Change, Climate Action 100+ and the Net-Zero Assets Owners Alliance, have already been established to manage climate change risks. Does the Basel Committee see the Net Zero Banking Alliance performing this role?
12. Actuarial professions globally provide a professional framework that allows collaboration on key issues in the public interest, existing in parallel with normal commercial competition between market participants.
13. The hurdle for good practice will continue to rise, but such collaboration could encourage views to be shared and facilitate focused and much-needed research. Such collaboration would bring benefits to the banking industry. We believe the insurance industry has benefitted from the actuarial profession providing a platform for the continual development of professional standards and best practice.
14. There is also a benefit to be obtained from collaboration between the banking and insurance industries. The insurance industry has been addressing and evolving its understanding of climate change risk over

³<https://www.fsb.org/wp-content/uploads/P070721-3.pdf>

a number of years now. There is scope for collaboration here, accelerating the banking industry's accommodation of climate change within its risk framework.

15. We believe banks' growing expertise in climate risks (and similarly for insurers) will be in demand by governments as they continually develop policies to support a 'Just Transition', protecting workers' rights and livelihoods in the process of shifting to a sustainable economy. There is a significant, but under-appreciated, link between societal risk and financial risk. Indeed, we could argue that the existing gap in risk management policies and practices between the two is also under-appreciated.

Practical and theoretical concerns about climate risk scenarios

16. More work and research is required to translate the physical and transition climate-change risks into scenarios, but this gap must not hinder current progress. The uncertainty about when climate-change tipping points might be reached suggests it is wise to assume a cautionary approach of adopting scenarios that recognise this uncertainty and the implied downside risk.
17. There is evidence that the economic scenarios supervisors use to test banks' balance sheets and that influence banks' strategies may well underestimate the impact over time.^{4 5} In the academic sector, Steve Keen's *Economists and their erroneous estimates of damages from climate change* addresses the issue head-on.^{6 7}
18. The IFoA believes this is an area where more research needs to be done. We note that the Executive Summary of the BIS-sponsored book 'The green swan - Central banking and financial stability in the age of climate change' (2020) states: "In this context of deep uncertainty, traditional backward-looking risk assessment models that merely extrapolate historical trends prevent full appreciation of the future systemic risk posed by climate change. An "epistemological break" (Bachelard (1938) is beginning to take place in the financial community, with the development of forward-looking approaches grounded in scenario-based analyses. These new approaches have already begun to be included in the financial industry's risk framework agenda, and reflections on climate-related prudential regulation are also taking place in several jurisdictions."

Insurance and banking

19. Bank lending relies heavily on borrowers protecting themselves against adverse risks through the use of insurance. However, the availability of insurance can be expected to change in line with a changing environment. Private sector capital can readily withdraw from the insurance sector, and more widely from economic activity which bears risks that seem uninsurable. For example, one major insurer stated publically⁸ that in their view a 4°C world would be uninsurable. The Global Challenges Foundation notes that even 3°C would be catastrophic: "most of Bangladesh and Florida would drown, while major

⁴<https://markcliffe.wordpress.com/2021/10/30/climate-shock-time-for-more-stressful-tests-on-banks/>

⁵<https://www.ortecfinance.com/en/insights/blog/stargazing-or-have-the-ngfs-and-the-bank-of-england-missed-an-opportunity-to-drive-the-race-to-zero>

⁶<https://arxiv.org/abs/2108.07847>

⁷More recently, the work of [EEIST.co.uk](https://eeist.co.uk) identifies how the upsides of economic transformations may not be captured by traditional cost benefits analysis (CBA). The title of the technique being developed by EEIST, ROA (Risk and Opportunity Analysis), is intuitively appealing and can be viewed as an expansion of that traditional CBA.

⁸<https://www.greenbiz.com/article/axa-4c-warming-makes-world-uninsurable>

coastal cities — Shanghai, Lagos, Mumbai — would be swamped, likely creating large flows of climate refugees. Most regions in the world would see a significant drop in food production and increasing numbers of extreme weather events, whether heat waves, floods or storms. This likely scenario for a 3°C rise does not take into account the considerable risk that self-reinforcing feedback loops set in when a certain threshold is reached, leading to an ever increasing rise in temperature. Potential thresholds include the melting of the Arctic permafrost releasing methane into the atmosphere, forest dieback releasing the carbon currently stored in the Amazon and boreal forests, or the melting of polar ice caps that would no longer reflect away light and heat from the sun.”⁹ We would not disagree with these views.

20. We need to be aware of a potential powerful negative feedback loop, which could threaten the often held assumption that insurance is readily available. Supervisors and banks should therefore factor in the indirect impact that climate change might have on their loan underwriting assumptions should insurance cease to become available in some areas.
21. Part of this responsibility lies with governments, not financial supervisors. BIS might wish to consider how to stimulate this conversation between supervisors and governments. In the UK, the Bank of England/Prudential Regulation Authority Climate Change Adaptation Report is helpfully clear on separating responsibilities for the control of emissions (government) from responsibility for the ensuing financial risks (financial supervisors)¹⁰.

Securitisation

22. One risk management tool that is extensively used by banks is to securitise risk. The ability to package risk and transfer it to investors was used extensively in the build up to the financial crisis. Supervisors need to be mindful of a similar transfer of climate risk and develop a growing understanding of who is ultimately carrying these risks, and their potential costs. If markets begin to sense that exposure to climate risk is mispriced, capital market pricing may gap, and the repricing of climate risk could see securitisation as a risk management tool cease to be available.

Q2. Do you have any comments on the individual principles and supporting commentary?

23. We would welcome the inclusion of a principle around market disclosures. Disclosures to the market are very important and careful thought as to what banks should be required to disclose here can have a big effect on the priority and resources regulated entities devote to climate risk management.
24. We believe the Committee should state that remuneration should be linked to the implementation of the principles. This might be done through an additional principle or separately.
25. We would support a new principle requiring independent accreditors to assess climate change risk models from a public interest perspective.

⁹ Global Catastrophic Risks 2017, Global Challenges Foundation, Stockholm.

¹⁰<https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/publication/2021/october/climate-change-adaptation-report-2021.pdf?la=en&hash=FF4A0C618471462E10BC704D4AA58727EC8F8720>

26. We welcome the emphasis on scenario analysis for both firms (Principle 12) and supervisors (Principle 18).
27. We support the references to collaboration between supervisors (Principles 16 and 18) and as discussed under Q1 we believe there are opportunities to extend this to banks also.

Q3. How could the transmission of environmental risks to banks' risk profiles be taken into account when considering the potential application of these principles to broader environmental risks in the future? Which key aspects should be considered?

28. Nature and biodiversity risk should increasingly be included in banks' risk profiles in the same way as climate-related financial risks. They can be as serious as climate risks, and as material. Biodiversity loss is not only amplified by climate change but also amplifies it. The interconnectedness of systemic risks can lead to tipping points with outsized and extreme financial impact. In assessing these risks, banks and businesses should focus not only on risks from nature loss, but also on the impact their business has on nature and biodiversity.
29. If you would like to discuss any of the points raised please contact Matthew Levine, Policy Manager (matthew.levine@actuaries.org.uk) in the first instance.