INSTITUTE OF INTERNATIONAL FINANCE

18 March, 2020

Mr. Andrew Bailey
Governor
Bank of England
Threadneedle Street
London
EC2R 8AH

Re: Bank of England Discussion Paper — *The 2021 biennial exploratory scenario on the financial risks from climate change*

Dear Governor Bailey,

The Institute of International Finance (IIF) and its membership, comprising broad representation of the global financial industry, appreciate the opportunity to provide comments on the Bank of England (BoE) Discussion Paper '*The 2021 biennial exploratory scenario on the financial risks from climate change*.' These comments have been informed by discussions of the IIF Sustainable Finance Working Group, under the leadership of Daniel Klier (Group Head of Strategy and Global Head of Sustainable Finance, HSBC) and Vice Chair Judson Berkey (Managing Director and Group Head of Sustainability Regulatory Strategy, UBS).

The UK is an important jurisdiction given its thought leadership in this area, for example with the publication last year of the PRA's Supervisory Statement on '*Enhancing banks' and insurers' approaches to managing the financial risks from climate change*' (April 2019). Also important is the precedent that will be set by this exercise: in its proposal for the 2021 Biennial Exploratory Scenario (BES), the BoE states its intention to make enough information available for other firms to complete the exercise as part of their internal risk analysis.[1] As many of the large banks and insurers that fall within the BES's scope operate across multiple jurisdictions, we also note that the BoE's exercise will certainly have broader effects outside the UK's borders. This is why we also plan to share our ideas and concerns on climate risk scenario analysis with other bodies, such as the Network for Greening the Financial System (NGFS), the Bank for International Settlements (BIS), the Basel Committee on Banking Supervision (BCBS), the Financial Stability Board (FSB), the International Association of Insurance Supervisors (IAIS), the International Organization of Securities Commissions (IOSCO), and the International Organisation of Pension Supervisors (IOPS).

The IIF agrees with the importance of the BES objective to comprehensively assess the UK financial system's exposure to climate-related physical and transition risks. The IIF supports the focus on business models and sizing risks rather than testing capital adequacy or establishing capital requirements. The identification and assessment of climate risks should be the focus of broader risk management.

[1] In particular, we note paragraph 2.4: "In addition, the Bank intends to make enough information available in the published scenarios to allow other firms to complete the exercise as part of their own scenario analysis work, in line with the PRA's supervisory expectations on climate-related financial risks. Firms not regulated by the PRA are also welcome to make use of the scenarios set out in this exercise where helpful for their own management of climate-related risks."

The IIF also welcomes the BES exercise as a much-needed vehicle to help identify and address data gaps. We would be pleased to continue to contribute to the development of cutting-edge risk management approaches that support the transition to a low-carbon economy.

While strongly supporting the rationale for the BES, many of our member firms have expressed concern about certain characteristics of the exercise—particularly its ambitious scope given persistent data gaps—and a lack of alignment on approaches to climate risk assessment. Due to these issues, which we will further outline below, we encourage the BoE to strongly emphasize the value of Board engagement and firms' analysis that will go into the exercise, rather than over-emphasizing the numeric results.

Our response is structured as follows: first, we provide general comments and observations on whether the BoE's proposal would deliver the intended objectives of the 2021 BES, and whether it is feasible and robust. Second, we provide more detailed responses to some of the questions in the Discussion Paper.

First, we provide some general comments and observations:

1. Scenario Alignment. Clear scenarios—with detailed information about assumptions and variables—that are aligned across jurisdictions are crucial to understanding the resilience of business models to the physical and transition risks from climate change. They also enable stakeholders to compare the results of various scenario analyses more easily and identify risks and transmission channels from the broader macro-environment to the micro business model. We therefore strongly support the development of climate risk scenario analyses and appreciate the BoE's proposed approach to build on reference scenarios currently under development by the NGFS, which are expected to be published in April 2020. We await the NGFS scenarios with great interest, since their specific features will greatly impact the BoE framework and affect how financial institutions evaluate the proposed exercise.

2. Avoiding Fragmentation. Climate risks are global in nature and require globally coordinated supervisory and regulatory responses. We acknowledge the thought-leadership of the BoE in understanding the financial risks from climate change and appreciate that the BoE is taking the initiative in assessing the exposure of banks and insurers to the financial risks from climate change. At the same time, we urge central banks and supervisors to align their approaches and avoid fragmentation.

Fragmentation is not just a theoretical risk but is rapidly becoming a reality in sustainable finance. In an IIF/European Banking Federation's (EBF) *Global Climate Finance Survey* of 70 financial institutions published in January, 65% said that 'green' regulatory market fragmentation was a big source of concern and would have a material impact on the market for sustainable finance. In a recently published IIF staff paper, '*Sustainable Finance Policy & Regulation: The Case for Greater International Alignment*,' we highlighted examples of fragmentation in the area of sustainable finance that have already emerged—including in supervisor-led climate-related scenario analysis—and suggested ways forward that would increase international alignment.

We encourage the BoE to use its thought-leadership to work towards a global exercise with consistent parameters/scenarios and advocate for such a solution within the relevant bodies. As noted in our letter from December 2019, the NGFS could play a key role in organizing such activity to avoid fragmentation and help generate efficiencies given the evident limitations on resources both in the regulatory community and in the industry. We encourage the BoE to offer support

where appropriate for a global exercise with consistent scenarios; if such a global exercise can be developed and implemented, the need for local or national assessments would be significantly reduced.

We are also convinced that a collaborative effort between the standard-setting bodies and the private sector could be useful. There are clear shared interests in the sustainable finance agenda, and both sectors bring helpful perspectives and resources. Both the public and private sectors will be held to account by the broader public for progress towards a more sustainable economy. Collaborative efforts can therefore be an efficient and effective way forward.

3. Feasibility. While action to address climate change requires ambition from all stakeholders, supervisory exercises on climate risks should be feasible. We fully acknowledge the urgency of the task at hand. Indeed, many firms explicitly account for climate-related risks and opportunities in their risk management frameworks and when writing new business.[2] For this, firms rely on a range of scenarios, models and data sources specific to their business models and available data and tools. However, the proposals set out in the Discussion Paper are well beyond what financial institutions have done so far in a supervisory or public context. While the BoE is acknowledging that this is a 'novel', 'complex' and 'pioneering exercise,' it proposes a very comprehensive scope in a relatively short timeframe.

Being overly ambitious in terms of scope and requirements could in fact compromise the quality and therefore the value of firms' submissions. Moreover, the resources required for a single exercise of this scope could constrain the firms' ability to engage with numerous other workstreams related to environmental risk assessment and sustainable finance. We understand the need for this exercise and share the sense of urgency, and our suggestions in this response letter seek to make the exercise more manageable and feasible in the allotted time frame.

4. Data Availability. Limited availability of required data is a significant obstacle to conducting the BES as proposed. As the BoE acknowledges itself, "[s]uch analysis is resource intensive and relies on data that may be unavailable for some companies."[3] Our member firms agree and consider it to be unrealistic to assess 80% of their corporate counterparties, for example. The data collection and analysis process requires mechanisms for continuous communication and cooperation among institutions with support from regulators and industry associations that may not yet be fully in place.

5. Materiality. Considering that this will be a learning exercise, we propose that the BoE takes a more proportionate approach based on materiality. This would enable participating firms to run the exercise within a reasonable timeframe, and for the BoE and firms to draw helpful conclusions from this first exercise for future work on this topic. Later in this response we suggest some ways that the 2021 BES could be designed in a more proportionate way, including: focusing on key economic sectors; focusing on the most material parts of an individual firm's balance sheet; and allowing greater reliance on data sampling. More generally, the firms participating in the exercise will have a variety of business models and will thus be exposed to climate-related risks in different ways. We would therefore encourage the BoE to be as specific as possible with regard to scenario assumptions and variables, while at the same time allowing firms to be flexible in determining which part of their individual balance sheet to analyze.

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[2] Including nearly half of the 70 participating firms in the aforementioned January 2020 IIF/EBF Global Climate Finance Survey.

[3] Discussion Paper, page 16. Specifically in relation to the proposals for assessing corporate exposures.

6. Time Horizon. It would be more relevant and informative to focus on a shorter horizon (e.g. out to 2050, but not incorporating effects out to 2080) with fewer reporting intervals. Given the significant uncertainty with climate-related scenario design and the related business analysis when projecting far into the future, the industry is concerned that the results would be too speculative and could give rise to the risk of false precision in the outputs of the exercise. Firms believe that it would be more tractable to consider a horizon that relates to the long-term business planning horizon, while still being long enough to consider the relevant risks that will develop over time.

7. Distinguishing Scenario Analysis from Stress Testing. Climate-related scenario analyses should not be treated as stress tests for prudential purposes. Hence, policymakers' expectations should be aligned with the current state of the art in terms of data, methodologies and tools: supervisors evaluating the results should not judge them by the standards of existing stress tests, given that climate risk assessment is new and evolving. Firms will have to complete this exercise on a best-efforts basis. This exercise should be considered as a first meaningful step in a longer process that will improve over time.

Also, while we appreciate certain modelling assumptions to limit the complexity and uncertainty of the exercise, these generalizations should be kept in mind when assessing the results. The most obvious example is the use of a fixed, static balance sheet to model scenarios that will play out over an extended time horizon. We understand the inherent difficulty of utilizing a dynamic balance sheet and we refrain from proposing such a complex alternative, but the limitations of a fixed balance sheet should be acknowledged, including in terms of the potential for overstating impacts that may not reflect risk-mitigating measures that could be developed and deployed in time.

8. Disclosure of BES Results. We appreciate that the BoE has proposed to refrain from disclosing individual firm results. However, given the small sample size of the participants in the BES, even disclosing the range of results may have unintended consequences such as accelerating asset stranding of certain sectors and/or companies. We therefore call for a cautious use of the data and restraint from a policymaking perspective. The outcome of this first iteration of the exercise should be interpreted as a first meaningful step in the context of a multiyear journey.

Below we provide more detailed responses to selected questions in the BoE's Discussion Paper:

Questions on Chapter 2: The key features of the 2021 BES

Q2: *Do firms envisage any challenges with modelling the no additional policy action scenario spanning 2050-80?*

We acknowledge that climate change and the policies to mitigate it will occur over a much longer timeframe than the normal horizon for stress testing. However, modeling too far into the future relies on many uncertain assumptions. This is particularly true for the envisaged modeling of the span after the initial 30-year period. Given the significant uncertainty with climate-related scenario design and the related business analysis when projecting far into the future, the industry is concerned that the results would be too speculative and would indicate false precision around such exercises considering the current state of the art. Risk analysis based on highly speculative assumptions may be of limited use from a risk management perspective.

Questions on Chapter 3: Scenario narratives

Q3: *Are there any other scenarios that the Bank should be testing as part of the 2021 BES?*

We appreciate that the BoE plans to align its scenarios with those currently being developed by the NGFS. We also appreciate that the BoE plans to limit the scenarios to three. We would anticipate that more clarity will follow the NGFS publication of the reference scenarios in April 2020 and note that the BoE states that it "intends to consult on and publish the final BES scenarios in the second half of 2020" (paragraph 1.13).

Q4: *Do the scenario timeframes strike the right balance between allowing a full assessment of these risks while also being tractable for firms' modelling?*

As we will argue in more detail in our response to question 12, member firms think it would make the exercise more feasible to have fewer reporting intervals along the 30-year time horizon without critically reducing the value of the results.

Questions on Chapter 4: Scenario specification

Q5: *Does the scenario specification adequately capture the risks in each scenario? Are there additional risk channels or scenario variables that should be considered as part of the BES?*

We appreciate the BoE's proposed approach to build on reference scenarios that are currently being developed by the NGFS and due to be published in April 2020. We await the NGFS scenarios with great interest, in part because their specifics are crucial to evaluating the BoE framework. We also appreciate that the BoE plans to consult on the draft scenarios, including the calibrated pathways for scenario variables, which are not set out in the paper. The IIF will have a close look at these scenarios once published and consider a further response.

Q6: *Are there alternative approaches to capturing the interactions between physical and transition risks, including capturing the impact of stranded assets?*

A method to incorporate stranded assets into credit stress is through the assumption of Loss-Given-Default.

Q8: *Are there particular external sources or approaches that the Bank should consider when relating long-term macrofinancial variables to climate variables?*

There is a range of external sources that can be considered (see e.g. the recent IIF Note '*Sustainable Finance In Focus: Back to Basics - The Pyramid*'). However, members are perhaps most familiar with methodologies related to stochastic models such as climate value at risk.

Q9: *For life insurer liabilities, are there further risks beyond longevity that should be specified as part of the BES?*

For purposes of this initial exercise, we believe that a focus on longevity risk is appropriate and most material for life insurers.

Questions on Chapter 5: Modelling approaches

Q10: *Are there data gaps or modelling deficiencies that would impede participants' ability to model the scenarios? How would participants reflect judgements about companies' current mitigation and adaptation plans in their quantitative assessment?*

In order to run this exercise, participants have to rely on data from their counterparties. We appreciate that the BoE sets out various data tools in Annex 2 of the Discussion Paper, but agree with the BoE's statement that "[s]uch analysis is resource intensive and relies on data that may be unavailable for some companies" (paragraph 5.4).

For instance, while the adoption of the TCFD recommendations steadily increases, even disclosure according to TCFD recommendations is still insufficient. In its June 2019 Status Report, the TCFD Secretariat notes that an artificial intelligence review of disclosures for 1,100 companies found that the average number of the 11 recommended disclosures addressed by companies in their public reports was only 3.6 in 2018. This is below the threshold of five for companies with no material climate risk and far below the goal of eleven recommended disclosures for companies facing material climate risks. So even for companies with TCFD disclosures, the available data might be insufficient to run the BES. And there are still many companies that do not disclose such information at all.

The available datasets often only cover public companies. There is much poorer data for the many privately-owned companies to which banks and insurers are exposed. To acquire such datasets for all sectors and all counterparties would be extremely expensive and time-consuming (to conduct in-house research and/or source and onboard different vendors to fill the data gaps). For instance, to properly evaluate physical risk (for insurers, banks and other financial services companies), Geographic Information System (GIS) mapping tools or service providers are needed. In many cases this information is unavailable. To identify the underlying counterparties will be even more complex for investment assets.

As proposed in previous letters, the IIF would like to explore the feasibility of data collection initiatives, e.g. with the TCFD Knowledge Hub or as a public-private exercise with international standard setters. We are aware of such initiatives on a regional level but—given the global scale of climate risks—think this should be considered internationally.

With regards to modelling deficiencies, member firms are concerned about the necessity to specify certain variables within the scenarios themselves. For instance, according to the BoE Discussion Paper, the scenarios would specify bond yields for government exposures of major economies in order to impose common background assumptions for participants' modelling. However, they would not provide such data for developing economies, even though the latter are "likely to include countries most impacted by climate change" (paragraph 5.4), as acknowledged by the BoE. There is a similar issue with the scenario variables specifying the impact of climate change for major countries only.

We acknowledge that it would be a major effort to specify all of these (climate as well as non-climate) assumptions. However, asking participants to make these specifications themselves could negatively impact comparability.

Moreover, the tasks of data collection and scenario modeling should inform and cross-reference each other, and the Bank may wish to consider explicitly tying such efforts to relevant assessments of risk transmission channels.

***Q11:** Would participants be able to assess 80% of their corporate counterparties at counterparty level, leveraging the tools set out in Annex 2 and expert judgement?*

We appreciate that the BoE is acknowledging that this approach is a 'novel and complex exercise' and that it differs from traditional stress tests in several areas. With that in mind, the target of 80% of corporate counterparties seems too ambitious for this pioneering exercise. This exercise would be extremely resource-intensive as major banks and insurers have thousands of counterparties. In many cases, it is not possible to 'look through' the investment to the underlying counterparties. Moreover, granular counterparty information may reveal proprietary information about a firm's asset allocation strategy.

We would suggest conducting a two-step assessment: for a top-down risk assessment, the BoE would first select sectors that are most at risk from climate change; in a second phase, participants would then perform the proposed scenario analysis bottom-up on each firm's most relevant counterparties within these sectors. From experience, major counterparties from the most affected sectors do have the most comprehensive data available, which would allow the participants to run this exercise in a similar timeframe to that suggested by the BoE. Such a focus would solve the main challenges of the proposed exercise and still allow the BoE and the participants to draw helpful conclusions from this first exercise without losing too much time.

If the BoE wished to consider scoping the exercise further from the outset the following approaches could be considered to focus on key counterparties, material exposures and/or certain asset classes so as to allow for less granular sampling approaches:

- *Key counterparties:* As mentioned in the Discussion Paper and according to the United Nations Environment Programme Finance Initiative (UNEP FI), up to 15% of the value of a representative global market portfolio could be at risk in the transition to a low-carbon economy. While this is without a doubt an alarming number, it shows that these risks are affecting a limited share of the portfolio. Hence, the BES could focus on exposures to key counterparties. Since these would primarily be large companies, such a focus would still encompass a significant part of a participant's exposure. For instance, there could be a sector-level approach with coverage emphasizing carbon-intensive sectors. Such an approach focusing on carbon-intensive sectors has been taken before by bodies like the EU and the UNEP FI.
- *Firms' material exposures:* As noted above, according to the UNEP FI, up to 15% of the value of a representative global market portfolio could be at risk in the transition to a low-carbon economy. Hence, the BES could let participants focus on their exposures most at risk from climate change. This would allow participants to focus on their individual risks instead of following a predefined 'one size fits all' approach with a fixed percentage of counterparties. Firms would benefit from such flexibility because focusing on materiality in the context of their business models improves their risk management—this can be especially true for insurers on the liability side of their balance sheets, where scenario analysis and stress testing need to be jurisdiction-specific in order to properly assess risk.
- *Asset classes:* The BES could also prioritize asset classes. Loans, equities, bonds and real estate are different asset classes and require different methodologies.
- *Data sampling:* The BES could allow sampling approaches which can be used to extrapolate to parts of the portfolio. While the proposal allows 'simpler, less granular approaches' for 20% of the exposures, we would propose a simpler approach for exposures from sectors/counterparties not considered key or at most risk of climate change. Also, since the initial BES is supposed to be a 'learning exercise' and used to determine whether the approach is feasible and robust, the assessment could also be limited to listed

companies where higher TCFD uptake provides more readily available relevant data—despite the challenges in TCFD disclosures outlined above.

Q12: *Does the proposed approach to modelling future risks at each reporting point work for both the modelling of credit and market risk? Does the reporting framework, in particular the frequency of five-yearly reporting points, adequately capture the evolution of risks over time? Might more frequent reporting be useful for some parts of the scenarios, for example, during the transition in the late policy action scenario?*

Member firms think it would make the exercise more feasible to have fewer reporting intervals. While a 5-year span would be sensible for the first reporting point, firms believe it would be reasonable to delay the other reporting points along the 30-year time horizon of the exercise. For instance, there could be reporting points 5 years from now, 10 years after that and 15 years after that (i.e. if the exercise starts in 2020 having reporting points in 2025, 2035 and 2050). Given that results become more speculative the further participants have to project into the future, this would be a sensible approach that at the same time wouldn't substantially reduce the value of the exercise's output.

In the event of a 'Minsky moment' of rapid asset repricing and stranded assets occurring between intervals, exploring shorter intervals in subsequent analyses may have the benefit of demonstrating whether and to what extent such repricing is disruptive. But for this initial exercise, longer intervals are sufficient.

Q13: *What are insurers' views on how to assess underwriting portfolio liabilities to key territories/perils? The Bank welcomes insurers' views on key territories/perils to be explored.*

Exposure to key territories and perils can differ significantly among insurers. This could be an area in which the BoE could provide participants with flexibility to model the risks most relevant to their portfolios.

Questions on Chapter 6: Firm submissions

Q14: *Given the suggested timetable for the BES, is 30 June 2020 the latest cut of balance sheet data that firms can submit? Is three to four months sufficient time for participants to the run the BES?*

Whether the 30 June 2020 or the 31 December 2019 balance sheet would be the best to choose depends on when the exercise is supposed to start. The closer the start date of the exercise is to 30 June 2020, the less feasible this cut of balance sheet data will be.

The Discussion Paper proposes that in-scope firms would have three to four months to run the exercise. This is a very short timeframe given the scale and novelty of the BoE's proposals. To put it into context, three/four months is akin to the time that firms currently have to complete macro-financial stress tests, such as the BoE's Annual Cyclical Scenario (ACS), which are now quite well-established processes for quantitively assessing the capital adequacy and resilience of banks (and, in separate exercises, insurers). These frameworks have evolved and developed over a number of years since the global financial crisis. And while firms have experience with them, they are still resource-intensive and time-constrained exercises.

Given the urgency of the issue at hand, instead of extending the timeframe, we would instead reiterate our call for a more material and proportionate exercise. If the scope of the exercise is scaled back, it might be feasible on the suggested timetable.

Q15: *Would the proposed outputs accurately capture the climate-related financial risks faced by participants and achieve the objectives of the BES?*

The outputs under the category of 'Sizing the risks' would be helpful to understand the risks connected to climate change. The output variables under the category of 'Understanding challenges to business models' and 'Improving risk management' will be helpful to understand the resilience to these risks. However, the latter two variables should not require too much granularity given the significant uncertainty with business analyses projected far into the future. The industry is concerned that, otherwise, the results would be too speculative and would indicate false precision.

Q16: *Do participants have access to data and tools to enable them to estimate the temperature alignment of their current asset holdings? Which asset classes should be included in this calculation?*

The absence of credible and timely data remains a key barrier to properly estimating the 'temperature alignment' of financial institutions' assets holdings. With existing forward-looking alignment methodologies still heavily utilizing extrapolated information on GHG emissions from third-party data providers, lack of credible and comparable climate-related disclosure from investee companies makes it challenging to properly assess the degree of temperature alignment.

Lack of transparency, comparability and clarity in existing alignment methodologies is another major challenge. There are many methodology providers, offering different approaches to assessing temperature alignment across various output presentations (temperature alignment, value-at-risk, emissions gap). Although existing methodologies mainly evaluate the effect of direct transition risk on investee companies under different temperature targets, they differ in depth, scope and sectoral coverage. Available methodologies do not cover the entire value chain of counterparties or integrate second-round and other feedback loops stemming from transition shocks, broadly leaving microeconomic and macroeconomic linkages disconnected. Thus, the transmission paths and impacts that climate risks have on financial assets and liabilities are not fully evident.

It is necessary to understand the interaction between scenarios and the investment and financing behavior of financial institutions in order elucidate how risks affect different types of assets and liabilities. As such, if any asset classes are selected for a temperature alignment analysis, there should be ample evidence demonstrating relevant risk pathways, sufficient high-quality data for participating firms to be able to conduct such an exercise, and methodologies covering second-order effects and feedback loops that would lend enhanced credibility to the results. While such factors could—in a more qualitative way—be part of the expert judgement that participants have to apply to assess their counterparties, requiring them to submit quantitative data in detail would add another layer of complexity and possibly render the BES exercise less feasible.

Q17: *Do five-year reporting intervals pose challenges to participants that are not reflected in this discussion paper?*

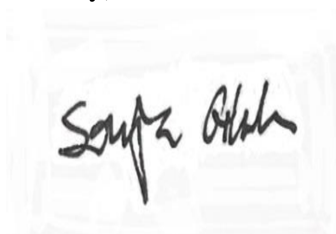
As argued in question 12 and given that results become more speculative the longer participants have to project into the future, 5-year reporting intervals would be less feasible along the 30-year

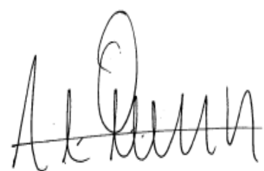
time horizon. Modelling assumptions and behavioral/business model analysis, particularly over such long time horizons, are more reasonable when they are higher-level.

Conclusion

The IIF hopes that the comments above will contribute to setting realistic expectations that help the industry tackle climate-related risks and help the official sector to create a supportive policy and regulatory environment. We would appreciate the opportunity to discuss any of these matters further and invite you to contact us should you have questions or comments.

Sincerely,





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