Bank of England PRA

Please note: This letter has been sent to CFOs of firms in scope of written auditor reporting and subsequently prepared for the website. Square brackets show where this letter may differ slightly, along with formatting, from those versions sent directly to firms.

David Bailey

Executive Director, Prudential Policy Prudential Regulation Authority

27 September 2024

Dear Chief Financial Officer,

Thematic feedback on accounting for IFRS 9 ECL and climate risk

Each year, we receive written reports from auditors of the major UK-headquartered banks and building societies as laid out in Chapter 8 of the Auditors Part of the PRA Rulebook. Auditors respond to our questions on issues of supervisory interest. This year, questions related to IFRS 9 expected credit loss accounting (ECL) and accounting for climate risks. This letter sets out the main feedback from our review of auditors' responses with further detail set out in the annexes.

Thematic findings on IFRS 9 expected credit losses

We asked for auditors' views on progress made in 2023 to adopt the 'high quality practices' for ECL set out in the PRA's letters of 2 October 2019¹ and on 11 October 2022.² To help with prioritisation, we gave our view of near term and medium term areas of focus.

October 2019: Written auditor reporting – thematic feedback from the 2018/2019 reporting period: www.bankofengland.co.uk/prudential-regulation/letter/2019/written-auditor-reporting-thematic-feedback-from-the-2018-2019-reporting-period.

October 2022: Written auditor reporting – thematic feedback from the 2021/2022 reporting period: www.bankofengland.co.uk/prudential-regulation/letter/2022/october/thematic-feedback-2021-2022-written-auditor-reporting.

We were pleased to hear about firms' continued efforts to navigate the uncertainty from the higher interest rate environment. These efforts are being supported by progress made in redeveloping new IFRS 9 models, along with enhanced monitoring and governance capabilities, aimed at better capturing risk. However, we continue to see variation in practice and scope to further embed high quality practices. It is against that background that we set out below the main thematic findings:

- Model risk continues to remain elevated. We consider it crucial that firms
 challenge the completeness of post model adjustments (PMAs) to ensure
 provisions reflect actual expectations of credit losses. This includes the impact of
 the higher interest rate environment on affordability and refinance risk for retail
 and corporate exposures.
- We were pleased to see progress being made on updating models and reducing reliance on aged models with known limitations. We encourage firms to actively monitor their model redevelopment plans to ensure capabilities are enhanced to better capture risk; and to consider the end state governance and controls for these new models at the point of model redevelopment in order to ensure alignment with supervisory statement (SS) 1/23 Model risk management principles for banks.³
- Default experience remains limited, meaning loss given default (LGD) models
 remain calibrated on historical data. We saw instances where firms had begun to
 pursue new recovery strategies or where recovery paths had become more
 complex in certain markets. It remains important to challenge whether the
 recovery assumptions that drive LGD are realistic and to compensate for the risk
 of historical bias where uncertainty exists over recovery outcomes.

Thematic findings on climate risks

We asked for auditors' views on the progress made in 2023 to develop capabilities to quantify the impact of climate risk on ECL.

While the availability and quality of data remain pervasive challenges, we were reassured to see firms taking action to consider a wider range of climate-related risk

May 2023: Model risk management principles for banks: www.bankofengland.co.uk/prudential-regulation/publication/2023/may/model-risk-management-principles-for-banks-ss.

drivers to help identify those exposures most at risk, and to challenge how to adapt their economic scenarios to incorporate climate risks. It is against that backdrop that we set out our main thematic findings:

- We welcome efforts by firms to enhance their climate-related credit risk
 assessments. We see scope for firms to further expand the coverage of
 portfolios for which climate-related risk drivers are formally assessed. This will
 be important to ensure risk assessments consider those drivers that could
 impact underlying collateral, refinance risk and borrowers' ability to repay.
- Firms are at various stages of developing more granular approaches to quantify
 the impact of climate-related risk drivers on ECL. As understanding of climaterelated risk drivers improves, we see scope for firms to further enhance data and
 processes to challenge the completeness of overlays and embed climate risks in
 loan-level credit risk assessments.
- We saw different approaches emerging in how firms are adapting economic scenarios to incorporate climate-related risk drivers. We see scope for firms to consider a broader range of climate scenarios and indicators to allow for timely identification of borrowers and sectors more exposed to climate risk than the wider economy.

Next steps

To help firms identify improvements they can make in the areas above and compare their approach to peers, annexes 1 and 2 set out the range of practice we saw as well as areas of focus for the near term and medium term. For ECL, near term areas of focus are those the PRA views as priorities to enable the timely capture of credit risk. For climate risks, these cover areas where we saw scope for firms to take early action. Medium term areas of focus are those where we anticipate further industry progress will take more time.

For the next round of written auditor reporting, we have asked for auditors' views on your progress against the areas of focus [on ECL] set out in this letter. We encourage you to engage with your auditor by performing your own assessment against the areas of focus.

The findings in this letter do not identify any particular firm or auditor. Supervisors will provide firm-specific feedback to firms and their auditors through continuous assessment meetings and the auditor-supervisor dialogue. We will be publishing this letter on the PRA section of the Bank's website. If you have any questions concerning the letter, please get in touch with me by email and copy your usual supervisory contact.

Yours sincerely

David Bailey

Executive Director, Prudential Policy, Prudential Regulation Authority

Annex 1

Thematic findings on IFRS 9 ECL

- In this annex, we set out our thematic findings from our review of written auditor reports received in 2024, as well as discussions with auditors, firms, and other regulators and thematic work by PRA staff. The areas of focus are aligned with, and build on, the expectations in SS1/23.
- 2. Our previous letters have explained the importance we attach to ECL being implemented well and in ways that achieve as much consistency of outcomes as is practicable.⁴ Our 2019 and 2022 letters set out our views on 'high quality practices' that would contribute to a robust and more consistent implementation of ECL, and so reduce the risk that firms will recognise inappropriate levels of provisions. We asked for auditors' views on progress made in 2023 against these practices.
- 3. This annex covers feedback on model risk and recovery strategies and is structured as follows for each area:
 - A description of the range of practice observed.
 - 'Areas of focus for the near term' highlights those high quality practices that the PRA views as priorities for firms to adopt/further embed in the near term.
 - 'Areas of focus for the medium term' highlights those high quality practices where we envisage further industry progress may take more time.
- 4. For ease of reference the 'areas of focus' are in tables below alongside the relevant high quality practices from previous letters.
- 5. Our aim in providing this feedback is to encourage firms to identify improvements that can be made to risk monitoring and measurement, and to the management information (MI) used to inform challenge of ECL estimates. The areas of focus and high quality practices have been developed with the size, nature, and complexity of firms in scope of written auditor reporting in mind. However, we think that the

November 2016: Implementation of IFRS 9 Financial Instruments: www.bankofengland.co.uk/prudential-regulation/letter/2016/letter-from-sam-woods-implementation-of-ifrs-9-financial-instruments.; and August 2017: IFRS 9 Financial Instruments: www.bankofengland.co.uk/prudential-regulation/letter/2017/letter-from-sam-woods-ifrs-9-financial-instruments.

- findings in this letter will also be helpful for firms applying IFRS 9 that are not within the scope of written auditor reporting.
- 6. Although it is not our role to set, interpret, or enforce accounting standards, we have an interest in how the standards are implemented, where the application of those accounting standards has an impact on our statutory objectives. We regard the effective implementation of ECL to be important in ensuring the safety and soundness of PRA-authorised firms. We will continue to work with firms to share concerns, facilitate cross-industry solutions, and promote high quality implementation. [This includes continuing to engage with your firm to examine ways to bring about greater consistency in more subjective elements of IFRS 9, such as the use of economic scenarios and Significant Increase in Credit Risk (SICR) approaches, as well as exploring the feasibility of a quantitative exercise to understand the possible impact of any residual inconsistency.]

Model risk

Near term areas of focus

- 7. We remain focused on the completeness of PMAs⁵ to ensure provision cover accurately reflects actual expectations of credit losses, as well as the pace of progress to implement model redevelopment plans and strengthen model risk management.
- 8. Model risk remains elevated. All firms face challenges assessing the impact of risks that models cannot fully capture due to lack of historical data. We saw firms take action to build new models to address long-standing limitations. However, we continue to observe that model and data limitations that imply reliance on PMAs is likely to persist for the foreseeable future. This includes PMAs in the following areas:
 - Affordability and refinance risks from the high interest rate environment:
 Models generally do not fully capture the possibility of delayed default
 emergence and the longer-term refinance risk for fixed term loans as
 businesses and households adjust to higher debt payments.

⁵ PMAs refer to all model overlays, management overlays, model overrides, or any other adjustments made to model output where risks and uncertainties are not adequately reflected in existing models.

- Vulnerable sectors: Models generally lack the granularity to capture sector specific vulnerabilities.
- 9. We continue to see scope for PMA calculations to be more robust. In particular, we continue to see use of approximate approaches such as portfolio level scalars and PMAs at the overall ECL level, rather than for ECL components such as LGD or Probability of Default (PD).
- 10. We saw a range of practice in assessing affordability for customers that have, or are expected to, refinance onto higher rates.
 - Most firms had frameworks to identify mortgage populations at risk from refinancing to higher rates. However, we see scope to expand similar centralised frameworks for lower credit quality corporate asset classes.
 - Mortgage frameworks differ across firms in terms of how far forward they look. While we saw instances of refinance risk only being considered for the next 12 months, better practice we saw included use of reasonable and supportable information to consider refinance risk over longer terms, such as the next three years. We see scope for some firms to enhance their refinance risk assessments on existing exposures to consider longer projection periods in order to better capture payment shocks for those who are expected to move onto higher rates in the coming years.
 - We saw instances of closer monitoring of performance for borrowers who
 had refinanced in the last 18 months. Such close monitoring is important to
 acknowledge that higher monthly payments might not be sustainable in the
 longer term.
 - 11. We saw a range of practice to support timely identification, and more robust analysis, of vulnerable sectors and high risk retail borrowers. Examples of better practice included:
 - Expanding the use of portfolio-level trend analysis. For example, trends in
 cash deposits were reviewed to identify pools of more vulnerable retail and
 corporate borrowers, for example those experiencing a significant drop in
 savings balances. This was used to inform PMAs to reflect risk of delayed
 default emergence.

- Formal horizon scanning at a portfolio level, to ensure key risks monitored by risk committees are captured in ECL and to challenge completeness of PMAs.
- 12. Given the above, our areas of focus for the near term remain similar to last year:

High quality practices from previous Areas of focus for the near term **DCFO** letters

Capabilities and processes to support timely identification and granular analysis of vulnerable sectors and high risk retail segments in stress are regularly reviewed to identify enhancements that can be made.

Timely and granular sector-level analysis is regularly used to challenge whether ECL captures the key risks relevant to vulnerable sectors and high risk retail segments, aligned to those risks being monitored by key risk committees.

Challenge whether models capture risks associated with the impact of the higher interest rate environment, including affordability and the longer-term refinance risk of fixed-term loans expiring in the years ahead, for vulnerable retail and corporate borrowers.

Enhance the quantification of PMAs to capture affordability and refinancing risks associated with the higher interest rate environment by moving away from approximate approaches, such as portfolio level scalars and PMAs calculated at the overall ECL, rather than component, level.

- 13. Enhancing models to better capture risk and address longstanding limitations remains a priority. Many firms had established and started to implement model redevelopment programmes that will last several years. These efforts had led to reduced PMAs, improved model segmentation, and enhanced model risk governance capabilities. However, the pace of roll out varies across firms. Even relatively advanced firms continued to rely on aged models with known limitations.
- 14. Model segmentation remains a focus, as using too few segments could mask certain risks. Firms continue to rely on PMA processes to address sector or segment specific risks not fully captured in models. We have seen instances of increased granularity to better align model segmentation with risk management. For example, to allow greater differentiation by geography, behavioural factors, and

- product type. We have also seen instances where models are simplified, such as using fewer economic indicators. This makes models quicker to run and easier to interpret but increases reliance on model monitoring.
- 15. Effective oversight and careful planning are essential to ensure these redevelopment programs deliver meaningful improvements in risk capture. It will be important for firms to monitor the impact that their redevelopment programs are having on model limitations and uncertainty. We saw scope for improvement for some firms, including to ensure strategic plans cover all model limitations that could impact timely identification of ECL and allow some contingency for timely remediation where new models fail initial validation. Better practice we saw included developing MI to monitor the impact of model redevelopment. This involved tracking progress to address model limitations and the aggregate risk of over or underestimation across IFRS 9 models against a set risk appetite.
- 16. It is important for firms to consider, at the point of model redevelopment, the end state governance and controls for their new models. This will be crucial to ensure that governance and controls surrounding new models are adapted to their complexity and support meeting the principles in SS1/23. Better practice we saw included incorporating proposals for a more comprehensive model testing environment within strategic plans.
- 17. We saw differences emerging in the use of model operating boundaries, as defined by SS1/23, for new models. Better practice includes:
 - Formalising a framework to define and monitor operating boundaries as part of new model development. These operating boundaries consider the historical range of economic variables used in model development.
 - Sensitivity analysis being used to assess whether model performance is plausible within a margin above and below the operating boundary.
 - Monitoring to assess whether updated economic scenarios, including downside scenarios, breach operating boundaries to inform the need to use PMAs.
- 18. Given the above, we identified the following areas of focus for the near term:

High quality practices from previous DCFO letters

Areas of focus for the near term

Strategic plans to address model limitations and enhance model capabilities are subject to regular oversight by a senior and cross-function committee. This includes effective challenge of the capacity of modelling and validation resource to deliver those plans, and the scope of plans to reduce reliance on PMAs in future.

Strategic redevelopment plans are subject to oversight, in order to ensure capabilities are enhanced to better capture risks and reduce reliance on material PMAs.

Strategic plans consider the end state governance and controls for new models to ensure alignment with SS1/23.

Model operating boundaries, under which model performance is expected to be acceptable, are clearly defined and used to help identify model performance issues in a timely manner, in order to challenge the completeness of PMAs.

Models have clearly defined model operating boundaries, in line with SS1/23, that are monitored to help identify performance issues and inform use of PMAs.

Granular analysis of sectoral risks and other high risk indicators is used to support the choice of model segmentation and documented as part of model development, and regularly reassessed as part of model validation.

Reassess, at development and on an ongoing basis, how model segmentation aligns to those high risk segments and sectors monitored for risk management purposes. Where gaps are identified, use available data to monitor those high risk segments and sectors more closely to inform use of PMAs.

Medium term areas of focus

19. Enhancing model monitoring and validation remains a priority. It will take time for control environments around new models to mature. Auditors continue to highlight monitoring limitations and control observations.

- 20. We saw encouraging progress by some firms to move towards more granular model monitoring to improve early identification of model performance issues. Examples include:
 - More granular monitoring to consider whether model performance differs across sub-segments. For example, separate monitoring of capital repayment and interest only loans. In contrast, we saw instances where monitoring lacked granularity, in part due to a lack of data.
 - Expanding testing to the different components of ECL. For example, assessing LGD accuracy, and use of multi-year testing to consider the term structure of lifetime PD. In contrast, we saw instances where monitoring lacked consideration of components such as LGD or lifetime PD.
- 21. As more recent loss experience becomes available, we continue to see scope for firms to perform more frequent and detailed model back-testing across a broader set of models and segments.
- 22. We anticipate that the depth of model validation will continue to evolve as model redevelopment plans progress. We encourage firms to consider what changes are needed to the scope of validation activities to ensure alignment with SS1/23.
- 23. Given the above, we identified the following areas of focus that remain similar to last year:

| High quality practices from previous DCFO letters | Areas of focus for medium term |
|---|---|
| Regular out-of-sample model | As more recent loss experience becomes |
| testing is used to monitor model | available, we see scope for firms to perform |
| performance in accordance with a | more frequent and detailed model back-testing |
| model risk framework set by an | across a broader set of models and segments, |
| independent function. | on both a pre- and post-PMAs basis. |
| Regular validation of models by an | Extend model monitoring and validation to |
| independent function at a frequency | cover key components of ECL. |
| based on complexity and materiality | |

| High quality practices from previous DCFO letters | Areas of focus for medium term |
|---|--|
| but generally not less than | Ensure model testing is sufficiently granular to |
| annually. | identify model performance issues across different sub-segments within portfolios. |

- 24. As model redevelopment progresses, firms will need to take decisions on which historical data to train new models on. This is relevant both to Covid data, as well as more recent data impacted by supply shocks and interest rate increases.
- 25. Firms generally had frameworks in place to make decisions on the inclusion of data from periods of stress on a model-by-model basis. However, in many cases it was not clear to us how these frameworks were centrally co-ordinated to ensure that those charged with governance have a clear overview on the aggregate impact of those decisions.
- 26. We saw examples of firms performing analysis on the relationship between inflation, interest rates and credit losses, given the impact on borrowers may not yet have fully emerged. Continuing to build this understanding will be crucial to inform future enhancements to modelling capabilities.
- 27. Given the above, we identified the following new area of focus for the medium term:

| High quality practices from previous DCFO letters | Areas of focus for medium term |
|--|--------------------------------------|
| A clear framework is in place for decisions on | Gather data to better understand |
| whether to include or exclude data from periods | the relationship between |
| of stress in model redevelopment, calibration, and | inflation, interest rates and credit |
| validation, supported by regular monitoring of the | losses to inform future |
| aggregate impact on model performance of such | enhancements to modelling |
| decisions by risk committees. | capabilities. |

28. We saw little change in practice and continue to monitor the following areas of focus:

| High quality practices from previous DCFO letters | Areas of focus for medium term |
|---|---|
| A log of key model simplifications and limitations is maintained and kept up-to date as part of ongoing model validation. Sensitivity analysis is used to reassess the completeness of PMAs and the risk of bias from ongoing use of model simplifications across a range of economic scenarios. | Enhance both the documentation and testing of key model limitations, including the use of sensitivity analysis as part of ongoing model validation to both reassess the impact of using different modelling assumptions and challenge completeness of PMAs. |

Recovery strategies

Near term areas of focus

- 29. It remains important to challenge whether the recovery assumptions that drive LGD are realistic. Firms and auditors continued to note a lack of data to recalibrate and challenge LGD assumptions which raises the risk of historical bias in LGD. Complex recovery paths in certain sectors, and newer recovery strategies in retail, such as reliance on debt sales markets, introduce risks that may not be reflected in past loss rates.
- 30. While we saw some firms make use of LGD specific PMAs, generally firms do not explicitly model uncertainty around recovery strategy outcomes. Some LGD models lack granularity, while others lack the use of forward-looking information. Examples of where firms held PMAs included capture of:
 - More complex recovery paths and lower demand for certain assets within specific sub-sectors, leading to increased forced sales discounts in certain Commercial Real Estate and asset finance markets.
 - Newer recovery strategies, such as forward flow debt sales, that depend on firms' ability to achieve current debt sale prices and volumes.

- Delays in achieving work-out strategies, such as adjusting for delayed mortgage repossession.
- 31. We continue to see limitations in firms' approaches to challenge whether a change in recovery experience has occurred or is likely to occur. These changes could be driven both by planned changes to strategy or portfolio composition, as well as external factors such as reduced demand for certain assets. We encourage firms to closely monitor the assumptions made around forward-looking recovery strategies to ensure foreseeable changes are detected early and fed into ECL calculations. This is important to ensure the use of all reasonable and supportable information that is relevant to LGD.
- 32. Firms continue to lack analytical tools to monitor the ECL impact of different recovery strategies at a portfolio level to assess the sensitivity of ECL to alternative recovery assumptions. We think such tools, together with insights on effectiveness of past strategies, would help support effective governance and challenge of recovery assumptions that drive LGD and inform targeted use of PMAs. Better practice we saw included a 'what-if' tool being deployed to enable the firm to assess the impact on modelled ECL from proposed changes to recovery strategies.
- 33. Given the above, we continue to identify the following areas of focus:

High quality practices from previous DCFO letters

Tools are in place to monitor the portfoliolevel impact of changing recovery strategy and are used to challenge risk of bias where there is uncertainty over which recovery strategies will apply or how effective those strategies will be under different economic scenarios.

Areas of focus for the near term

Closely monitor the assumptions made around forward-looking recovery strategies to ensure foreseeable changes are detected early and fed into ECL calculations.

Enhance internal reporting to provide greater insights into loans or segments with the highest sensitivity to changes in recovery strategy, and which is used to help inform targeted use of PMAs.

- 34. We continue to focus on the level of review and challenge over LGD models and metrics, given limited recent loss and recovery experience available to support granular validation and monitoring. Effective challenge is important to consider whether future recovery experience could differ from historical performance. For example, we saw some firms report limitations in model monitoring and validation to impairment committees, in part due to lack of recent data. This allows committees to consider emerging risks and trends that might not be captured in available data when considering the need for PMAs.
- 35. Where recent loss experience was available, examples of better practice for monitoring of LGD models included:
 - Increased granularity in model monitoring to better compare model performance
 against actual recovery experience. For example, we saw monitoring of the
 different components of LGD, such as time to recover and collateral haircuts, and
 more segment level analysis to consider changes in portfolio composition.
 - Inclusion of unresolved accounts, to better capture recent recovery trends for the entire workout period.
 - Challenging the treatment of discounting, given the potentially greater impact from the higher interest rate environment and to ensure like for like comparisons between forecasts and actuals.
- 36. Given the above, we identified the following areas of focus for the near term:

| High quality practices from previous DCFO letters | Areas of focus for the near term |
|---|---|
| Effective review and challenge of LGD models is embedded into business-as-usual monitoring. | As more recent loss experience becomes available, we see scope for firms to formalise periodic validation and monitoring of LGD models. |
| Challenge of LGD metrics includes consideration of the need to | For portfolios where loss experience is insufficient to support meaningful validation and |

remove bias towards historical recovery experience to better reflect future expectations and economic conditions.

monitoring, we see scope for firms to establish processes for tracking and challenging key LGD metrics to ensure modelled ECL reflects recent trends as well as reasonably possible alternative recovery outcomes.

Medium term areas of focus

- 37. We continue to see limited evidence of challenge of how the likelihood and impact of recovery strategy failure are captured in LGD assessments. Capture of recovery strategy failure is important to ensure firms consider both economic factors that impact overall recovery rates, like gross domestic product (GDP) or property prices, as well as the additional risks and uncertainties associated with different work-out scenarios.
- 38. Generally, firms' approaches seemed to rely on qualitative arguments that the risk of a recovery strategy failure is not elevated, and implicitly captured by considering downside economic scenarios and through historical recovery experience reflecting past recovery strategy failures.
- 39. We see scope for firms to enhance their approach to capture recovery strategy failure. This would include challenging modelled assumptions, for example by identifying exposures where the likelihood of recovery strategy failure is elevated, relative to the portfolio average based on past experience. It would also include challenging whether individual assessments capture recovery strategy failure for vulnerable sectors.
- 40. Given the above, we identified the following areas of focus for the medium term:

| High quality practices from previous DCFO letters | Areas of focus for the medium term |
|---|--|
| The likelihood and impact of 'recovery | Identify limitations in capturing the |
| strategy failure' on LGD is considered, by | impact of recovery strategy failure in |
| for example considering the possibility of a | modelled LGD; challenge whether the |
| disposal scenario, as an additional | |

challenge around whether adequate allowance is made for uncertainty.

impact is fully captured by economic scenarios and historical loss data.

Challenge whether individual assessments fully capture the impact of recovery strategy failure, including use of MI to assess the aggregate impact of recovery strategy failure for vulnerable sectors.

41. Consistent with last year, firms are generally less progressed in adopting the high quality practices relating to recovery strategy than in other areas of ECL. We encourage firms to continue to adopt the high quality practices below:

High quality practices from previous DCFO letters

Thresholds used to determine when multiple recovery outcomes are used to calculate LGD are regularly reassessed to ensure that they are sensitive to sectoral risks and updated for changes in those high risk sectors that are monitored.

The result of reviews when accounts are downgraded and moved to more active credit risk management are used to identify model and data limitations.

Work-out teams have a formal role in challenge of LGD metrics for vulnerable sectors and high risk retail segments.

Annex 2

Thematic findings on accounting for climate risks

- In this annex, we set out our thematic findings on firms' capabilities to quantify the impact of climate risks on ECL. These findings were developed through review of written auditor reports received in 2024, discussion with auditors and firms, and thematic PRA work.
- Our previous letters have explained the proper identification of risks of material
 misstatement is important to supervisors, as it impacts the extent of audit work
 performed that supervisors can make use of in reviewing firms' own risk
 assessments.
- 3. The Bank of England's 2023 report⁶ explained that the development of capabilities to support high quality and consistent accounting practices for climate risks will help mitigate the risk of gaps in the capital framework, and that the PRA will play an active role in promoting high quality and consistent accounting for climate change.
- 4. Our 2023 letter set out areas of focus for firms' capabilities to quantify the impact of climate risks on ECL.⁷ We asked for auditors' views on progress made against these areas of focus. Our aim in providing these findings is to encourage firms to identify improvements that can be made in capabilities.
- 5. This annex is structured as follows:
 - A description of the range of practice observed.
 - 'Areas of focus for the near term' highlights those areas where we saw scope for firms to take early action to enable them to make further progress over the next few years.

March 2023: Bank of England report on climate-related risks and the regulatory capital frameworks: www.bankofengland.co.uk/prudential-regulation/publication/2023/report-on-climate-related-risks-and-the-regulatory-capital-frameworks.

September 2023: Written auditor reporting – thematic feedback from the 2022/2023 reporting period: www.bankofengland.co.uk/prudential-regulation/letter/2023/thematic-feedback-2022-2023-written-auditor-reporting.

- 'Areas of focus for the medium term' highlights those areas at earlier stages
 of development and where we envisage that further progress may take more
 time.
- 6. The areas of focus have been developed with the size, nature, and complexity of firms in scope of written auditor reporting in mind. However, we think the findings in this annex will be helpful for firms applying IFRS that are not in scope of written auditor reporting. The areas of focus are consistent with, and build upon, existing supervisory expectations.⁸
- 7. As Sam Woods explained in his letter of 21 October 2022,⁹ we have an interest in firms being well prepared for the impact of climate change on their accounting practices, and increased focus on climate risks by external auditors. We consider the timely incorporation of climate risks in accounting valuations to be important in ensuring the safety and soundness of PRA-authorised firms, so we will continue to work with firms to share concerns, facilitate cross-industry solutions, and promote high quality implementation of accounting standards.
- 8. We will continue to engage with members of the UK Finance Disclosure Code Working Group¹⁰ to benchmark climate-related disclosures in order to develop good practice, including improved linkage to financial reporting disclosures. In 2025, we plan to focus on disclosures to help users understand the effect of climate risk on firms' exposure to credit risk, how the effect of climate risk has been considered in ECL measurement, and underlying assumptions and judgements.

Near term areas of focus

Identifying the climate-related risk drivers that could influence ECL for loan portfolios that have the highest sensitivity to climate risks

April 2019: Enhancing banks' and insurers' approaches to managing the financial risks from climate change: www.bankofengland.co.uk/prudential-regulation/publication/2019/enhancing-banks-and-insurers-approaches-to-managing-the-financial-risks-from-climate-change-ss.

October 2022: Thematic feedback on PRA's supervision of climate-related financial risk and the Bank of England's Climate Biennial Exploratory Scenario exercise: www.bankofengland.co.uk/prudential-regulation/letter/2022/october/managing-climate-relatedfinancial-risks.

July 2017: UK Finance Code for Financial Reporting Disclosure: www.ukfinance.org.uk/our-expertise/financial-and-risk-policy/uk-finance-disclosure-code.

- 9. Determining the right metrics to identify the loan portfolios and segments that could be most impacted by climate risk remains a challenge. For retail, generally we saw firms continuing to focus on identifying loans against properties at higher risk of damage (for example due to flooding, coastal erosion, subsidence, and fire). This included those properties that may be ineligible for insurance. We saw firms considering whether low EPC scores may impact collateral values or whether costs to meet EPC targets may impact borrowers' ability to service debt. For corporate, generally we saw focus on the potential for higher carbon prices, or the costs necessary to achieve emissions reductions, to impact firms' ability to service debt.
- 10. Firms continued to make progress in enhancing the identification of climate-related risk drivers used to quantify the firm's exposure to borrowers most at risk. The identification of risk drivers continues to rely on firms' expert judgement and understanding of their portfolios. Better practice we saw included:
 - Expanding the scope of portfolios for which formal assessments are performed to identify risk drivers. For example, we saw the addition of unsecured portfolios for some firms.
 - Increased use of quantitative analysis and targeted reviews to help identify risk drivers most relevant to key portfolios, and to distinguish between immediate and emerging risks.
 - Expanding the scope of risk drivers considered at a product level, such as supply chain, litigation, and refinancing risk.
 - Inclusion of climate risk in the horizon scanning process and consideration of the impact from potential changes in policy, for example around EPC ratings.
- 11. We see opportunity for firms to further expand the coverage of portfolios for which climate risk drivers are formally assessed and to perform more detailed 'bottom-up' assessments to ensure the identification of risk drivers relevant to sub-portfolios. This is important to ensure risk assessments consider those drivers that could impact borrowers' ability to service their debt and underlying collateral values.
- 12. We continue to encourage firms to consider the impact of refinancing risk for higher risk portfolios. In line with the prior year, it was not apparent to us whether or how firms had factored refinancing risk into their impact assessments. Most reports did

not comment on the issue, beyond noting it was not explicitly considered. For example, reports noted that scenario analysis performed to understand risk drivers typically assumed a static balance sheet and ignored refinancing risk. This seems to be supported by the view that recent refinancing has generally been unaffected by climate risk, or else climate risk is being captured as part of broader assessments of refinancing risk for borrowers facing higher interest rates. Better practice we saw included product level reviews of refinancing being undertaken for retail and wholesale, to consider the need for PMAs. Examples include consideration of the impacts of flood risk or regulatory changes on EPC ratings on borrowers' ability to refinance.

Near term area of focus

Challenge completeness of the climate-related risk drivers used to identify potential ECL impacts and the portfolios most at risk, including consideration of refinancing risk.

Use of quantitative analysis on the impact of climate-related risk drivers on ECL and SICR at a portfolio level

13. Firms made progress in moving to more granular and sophisticated analyses to quantify the impact of specific climate-related risk drivers on ECL. These analyses were generally used to challenge the need for PMAs, rather than to adjust reported ECL. No firm raised a material PMA for the impact of climate on credit risk, reflective of the view that current climate risk impacts are limited, or the impact is already implicitly captured in ECL.

14. The range of practice we saw included:

- Enhanced scenario analysis tools originally developed for stress testing being
 used to allow for more granular loan level assessments. These were generally
 used to estimate the impact of climate scenarios on PD, LGD and credit grades,
 rather than to generate a 'climate-adjusted' ECL.
- Enhanced quantitative approaches to measure the impact of specific risk drivers on ECL for key portfolios. These generally focussed on energy efficiency, flood risk, and subsidence. In general firms assessed the impact of these drivers on either PD or LGD, but not consistently both.

- For assessing the impact of costs to improve EPC ratings for owner occupied and buy-to-let mortgages, some firms focused on the impact on PD. For example, considering the impact of the costs of improving EPC ratings on customers' disposable income. While other firms focused on the impact on collateral valuations, by applying haircuts to properties with poor EPC scores.
- For assessing the impact of flood risk, some firms focused on the impact of
 property damage on default risk. These used third party data, post codes, and
 inhouse models to estimate flood risk probability and damage value to adjust the
 customer disposable income assessments used to estimate PD. Not all firms
 were able to estimate the impact on collateral valuations, or the impact of
 insurance, to assess LGD impacts.
- Less advanced approaches used relatively simplistic metrics for assessing the impact. For example, considering the amount of exposure to properties in flood zones or with poor EPC ratings and assessing the ECL impact qualitatively.
- 15. Quantitative assessments continue to rely on expert judgement, given pervasive limitations around the quality and availability of data. While the number of higher risk portfolios subject to bottom-up quantitative assessment has increased, coverage remains limited across the sector. Some risk drivers, such as supply chain or refinancing risk are not yet able to be quantitively assessed. This underscores the importance of further efforts by firms to remediate known limitations so expert judgement can be rationalised with data. Limitations noted include: EPC ratings being unavailable for significant proportions of the mortgage book; lack of data on insurance coverage or property rebuild values; and lack of firm-level emissions intensity data or asset locations.
- 16. For corporate portfolios, we saw more focus on the inclusion of climate risk into counterparty or loan-level credit officer assessments for large exposures. Better practice included the development of frameworks to support these assessments. For example, scorecards to help the identification of counterparties where climate change is likely to have an impact on loan loss provisions. These frameworks were generally used to inform closer monitoring, rather than having a direct impact on credit grades or staging. We see further opportunities for firms to enhance and

expand frameworks for factoring climate risk into BAU credit risk assessments for corporate exposures.

Near term areas of focus

Challenge completeness of overlays to address the risk that loan losses may exceed those predicted by current models.

Enhance analytical tools used to ensure conclusions on the need for PMAs, to capture the impact of climate risks, are supported by more robust, data-driven quantitative analysis – and less reliant on qualitative risk assessments.

Increase focus on more granular portfolio level assessments which consider the impact on PD, LGD and exposure at default (EAD) and explore sector or product specific vulnerabilities to climate risks.

Further embed the impact of climate risks into business-as-usual credit risk assessments for corporate exposures.

Consider how business-as-usual credit risk assessments can be subject to appropriate levels of challenge and used to better understand firms' aggregate exposure to climate risks. For example, through the use of scorecards to identify counterparties where climate change is most likely to impact ECL.

Identifying how economic scenarios and weightings used for ECL calculations should be adapted to incorporate climate-related risk drivers

- 17. Firms demonstrated progress in either challenging or adapting the scenarios used to calculate ECL to reflect the impact of climate-related risk drivers. We saw a range of good practice emerging that included:
 - Some firms focused on adjusting the base case scenario, while others considered more disruptive downside climate scenarios aligned with internal climate stress tests.
 - Some firms were developing models to produce climate adjusted forecasts for macro-economic variables used by existing IFRS 9 models, such as GDP and unemployment. For example, to implicitly capture changes in carbon pricing in

- ECL. In some cases, we saw firms introduce new climate-related variables explicitly included in ECL models, such as carbon pricing.
- Some firms benchmarked key macro-economic variables (MEVs) used in their IFRS 9 scenarios against external climate scenarios. For example, scenarios published by the Network for Greening the Financial System. This analysis generally did not result in adjustments to MEVs, as the range of climate scenarios was within the existing range of scenarios used to calculate ECL.
- 18. While benchmarking and implicitly capturing climate is a welcome first step, we see a risk that relying overly on high level benchmarking may not allow for timely identification of those borrowers or sectors who are more affected by climate risks than the wider economy.

19. Given the above, we identified the following new area of focus.

| Key plan element from previous DCFO letter | Near term area of focus |
|--|---|
| Identifying how economic | Consider a broader range of downside climate |
| scenarios and weightings used | scenarios, and climate-related variables, in the |
| for ECL calculations should be | economic scenarios used in the ECL calculation, |
| adapted to incorporate | to allow for timely identification of borrowers and |
| climate-related risk drivers. | sectors more exposed to climate risk than the |
| | wider economy. |

Medium term areas of focus

- 20. We saw encouraging progress made by some firms in identifying the requirements for data and models to factor climate-related risk drivers into ECL. Progress varied across firms, with some firms developing new 'climate aware' models, and more advanced firms having implemented new models for key retail portfolios and higher risk corporate sectors. These models generally aimed to better reflect the impact of transition risks on GDP and unemployment, while some corporate models also considered the impact of higher carbon prices on profits in high emission sectors.
- 21. Most firms had plans to implement new models in the coming years, including to capture the impact of physical and transition risk on both default and collateral

- valuations. Outliers had no current plan to replace top-down models developed for stress testing purposes.
- 22. We encourage firms to continue to progress their plans to develop more climate aware models to reduce reliance on top-down approaches used for stress testing purposes. Climate modelling will take time to mature, and there is more work for firms to do to build up confidence in the output of these new models and to understand their limitations as climate effects become more apparent. As new models are integrated into existing financial reporting process, it will be important to ensure that data and models go through as robust a level of review and challenge as other inputs to the ECL calculations.

Medium term areas of focus

Identify the requirement for data and models, and implementing the changes necessary, to factor climate-related risk drivers into loan level ECL estimates.

Enhance review and monitoring by second line risk teams of how models and scenarios used to calculate ECL incorporate climate-related risk drivers.