

Effectiveness of stress-testing model risk management

This document, published alongside the Bank of England's 2018 stress-test results, provides an assessment of the effectiveness of stress-test participants' model risk management. The review findings have been formally approved by the Prudential Regulation Committee.

Effective model risk management (MRM) for stress testing will support more credible stress-test results and allow the senior management and the Board of individual banks to take informed risk management decisions. In recognition of the importance of modelled outputs in stress-test results and the large number of stress-testing models used by banks, the PRA proposed draft MRM principles to the banks in 2017. Incorporating the feedback from banks and due consultation, the PRA published a supervisory statement on MRM principles (SS3/18) in April 2018. Bank staff assessed banks' stress-testing MRM frameworks against those principles as part of the 2018 stress-testing exercise.

Banks have demonstrated an increased awareness of the need to have effective MRM frameworks. Banks have set out clearly the roles and responsibilities for managing model risks and clear criteria to support model identification. Banks have also prescribed model development and validation standards which should support improved quality of modelling and a greater level of consistency in documentation. But the maturity of implementation is varied. A number of banks have developed, or are developing, governance and control requirements for calculation mechanisms ('non-models') and judgement based approaches which, when fully implemented, should ensure appropriate level of oversight.

Some banks have made good progress against the PRA's expectations. However, other banks need to make substantial improvements to raise the management of model risk to a standard required for stress testing. In particular, the Boards of a majority of the banks are yet to have an adequate understanding of the limitations in their key models and the potential impact of model uncertainty in the outputs of those models. Senior management should ensure that the limitations of material models, and how those limitations have been addressed, are effectively communicated to the Board.

Given the uncertainty inherent in forecasting the financial impacts under a stress scenario, some level of overlays and judgements may be expected. For most banks these overlays and judgements adjusted modelled outputs materially in key areas of the stress-testing results. Where material judgements are applied, banks should consider whether the judgements used are well supported, including through the use of appropriate empirical data or benchmarking analysis. Banks also need to plan and resource their model validation to ensure that model coverage is adequate and model limitations are identified in a timely manner.

To build on this review, the PRA will provide feedback to banks detailing areas requiring improvements. The 2015 [Stress Testing Approach Document](#) indicated that in future, more detail might be published of the Bank's observations on good and bad practice arising from the qualitative review. The PRC is minded to include reference to qualitative review outcomes in next year's publication of bank-specific assessments. Further consideration will be given to this, in light of the PRA's objectives, in the coming months. And as also set out in the Bank's 2015 Stress Testing Approach Document, findings from qualitative review assessments could be used to inform the setting of the PRA buffer.