BANK OF ENGLAND

International Regulators: Lessons Learned from Recent Exercises

Rohan Churm
Head of Stress Testing Strategy Division

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Plan

- Objectives of framework for stress testing UK banks
  - Implications of macroprudential and microprudential policy committee structure
- Current framework
  - Concurrent Bank of England stress test of UK banking system
  - EBA stress tests
  - Supervisory stress tests (private)
- Implementation challenges
  - Lessons learned from 2014
  - What's already changed for 2015

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Objectives of the UK stress testing framework

- Provide a quantitative, forward-looking assessment of the resilience of the banking system as a whole and individual institutions within it
- Serve needs of both Financial Policy Committee and PRA Board, contributing to:
  - Integrated decision-making process around bank capital adequacy
  - An accountability device
  - Strengthened supervisory approach
  - Improved risk and capital management practices within banks
  - Enhanced public confidence in regulators and the banking system

Concurrent stress testing of the banking system

Financial Policy Committee
Macroprudential system wide policy decisions including counter-cyclical capital buffer

Prudential Regulation Authority Board
Microprudential policy decisions including (bank-specific) PRA buffers

Concurrent stress test

Macroeconomists
scenario design, top-down and behavioural modelling of stress test results

Bank supervisors
qualitative input, communication with banks, lead on supervisory reaction function

Participating banks
Provide data, submit their own quantitative projections, explain assumptions/models

Supervisory Risk specialists
quantitative and qualitative portfolio level analysis of bank submissions, qualitative review of banks capabilities

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The 2014 test

- Coordinated with the European Banking Authority (EBA)
  - EBA designed global macroeconomic and traded risk elements
  - Bank of England designed UK macroeconomic elements
- Banks were tested quantitatively and qualitatively
  - ‘Presumption of action’ below 4.5% CET1 capital ratio, action ‘may still be required’ above it
  - No set hurdle for the qualitative assessment
- Eight banks participated
  - Four were also in the EBA test

Supervisory stress tests

- Also covers banks (firms) outside the concurrent test
- PRA Board can use all relevant information to set PRA buffers
- Results are private

Stress and scenario testing is an important element in firms' planning and risk management processes, helping them to identify, analyse and manage risks.

To support its framework, the PRA sets policy for firms' stress testing requirements, sets stress scenarios and monitors test results.

Firms should develop, implement and action a robust and effective stress testing programme that assesses their ability to meet capital and liquidity requirements in stressed conditions, as a key component of effective risk management.

All firms should undertake relevant analysis, commensurate with the nature, scale and complexity of their business.

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2014 qualitative review

- Bank recognised that timelines were challenging and that alignment with the EU-wide stress test generated added complexity.
- As the first concurrent stress test, the Bank used the review to establish range of practices.
- Generally good practices in some areas, room for improvement in others.
- Expectation of improvements.

4 Qualitative review of banks' stress-testing frameworks

Bank staff undertook a qualitative review of banks' stress-testing and capital-planning frameworks. Overall, there has been an improvement relative to practices observed prior to the crisis. But the review identified considerable variation across banks and highlighted a number of areas where stress-testing and capital-planning frameworks will need to be strengthened. This section summarises some of the key findings of the Bank's qualitative review.

The Bank recognises that the timelines for the exercise this year were challenging and that the alignment with the EU-wide stress test generated added complexity for banks. As this is the first concurrent stress test, the Bank is using the qualitative review to establish the range of practices observed across the industry at the moment. The Bank will, however, be expecting improvements in subsequent exercises.

The Bank's qualitative review highlighted good practices in some areas...

For most banks, senior management and Board-level engagement with the stress-testing process was at a good level. This had been flagged as a key issue in the Discussion Paper on the new stress-testing framework published in October 2013. Most banks also had credible processes in place to expand the stress scenario to the range of variables relevant to their own business models, which incorporated a balance of modelled and judgemental inputs and considered key variables across the range of relevant business activities.

...and room for improvement in others...

There was a wide variation in banks' ability to provide accurate data and in the strength of banks' modelling approaches. Those banks with robust validation and reconciliation processes had few resubmission requests. And the quality of data submissions varied substantially by risk type, with credit risk data generally of a better standard than other areas.

Modelling of NII proved to be particularly challenging. With a few exceptions, the data in banks' initial submissions were poor. The methodologies used to model NII were less mature than in other areas (eg credit risk) and banks were not always able to support assumptions and modelling decisions taken. The better-performing banks were those that undertook analysis at a reasonably granular level, rather than at a more aggregated level. This provided a greater degree of control over the assumptions and transparency over the analysis. A number of banks had governance processes around NII projections that were identified as weaker than for other areas.

The standard of credit loss modelling varied across sectors. Retail credit loss modelling was of a broadly acceptable standard for the majority of banks, while wholesale credit loss forecasting was generally of a poorer standard. Overall, though, this is an area where banks have made progress since the crisis.

For some portfolios, notably UK mortgages, most banks considered a range of analyses to explore the particular features of the scenario. This was to compensate for known model weaknesses and to provide corroborating analysis to support forecasts. However, this corroborating analysis was not universally undertaken and the processes supporting the use of expert judgement were not demonstrably robust and frequently poorly documented.

All banks were significantly constrained by limitations in their infrastructure and resources, both in terms of IT infrastructure and personnel and these were exacerbated by the tight timelines of the exercise. Banks with more complex operations were particularly challenged in this area. Only one of the eight participating banks demonstrated that it had sufficiently mitigated these constraints.

In general, model management frameworks for stress-testing models lag behind those for regulatory models. The better performing banks had model inventories and clear, well-documented frameworks. At poorer performing banks, validation standards were not sufficiently robust, some key models were not validated and there were instances of models that had failed validation being used nonetheless.

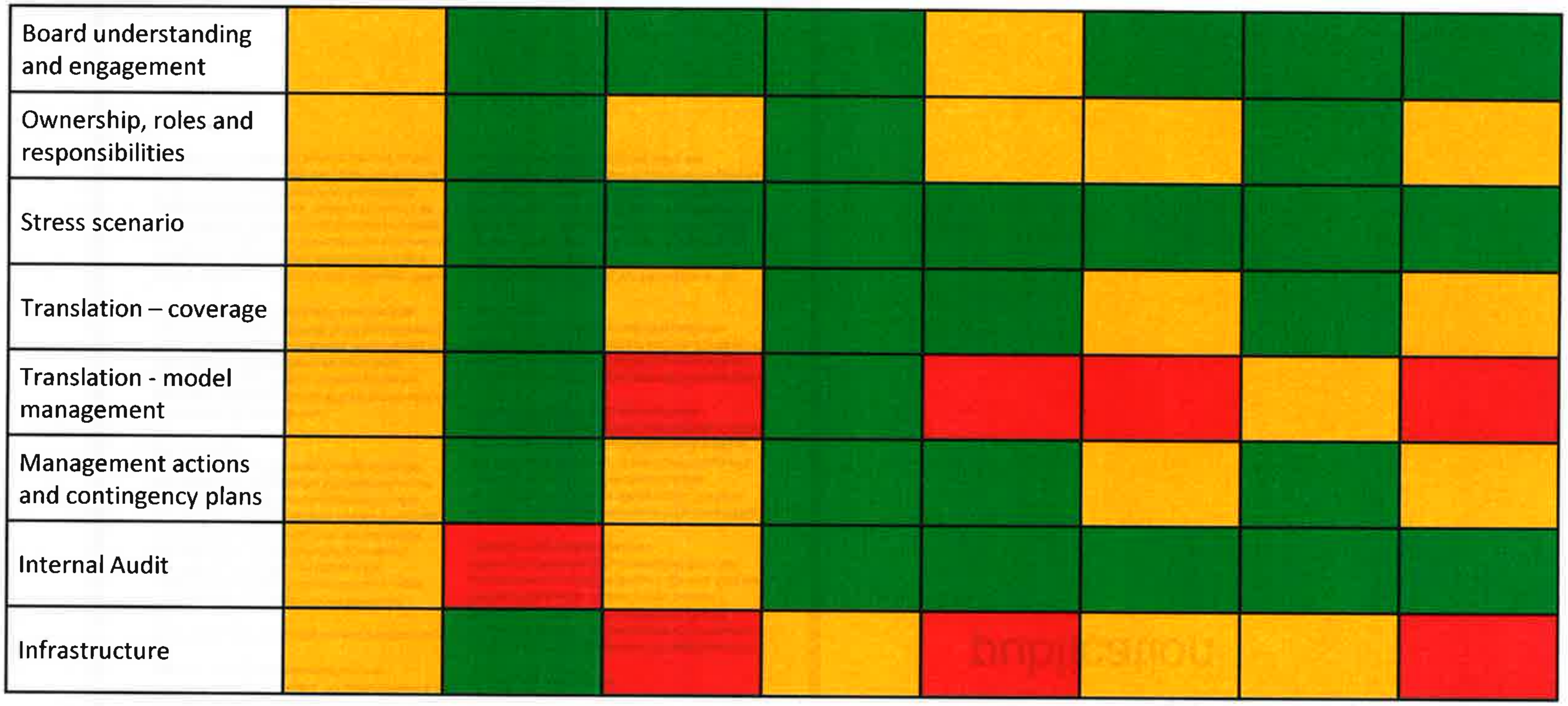
Ongoing engagement from some banks with the stress-testing process was poor: answers to queries from Bank staff were often incomplete and, in a number of instances, the nature of the interactions fell below the standards set out in the Discussion Paper.

...which we would expect to see over time as stress-testing processes become embedded.

The Bank will work with each of the participating banks and their Boards to set out areas for them to focus on ahead of next year's stress test in order to improve the quality of their stress testing. The Bank will consider, as part of the 'lessons learned' process, whether it needs to provide further guidance in the future to clarify its expectations in this area.

- Key messages from our qualitative review were included in the 16th December 2014 results publication

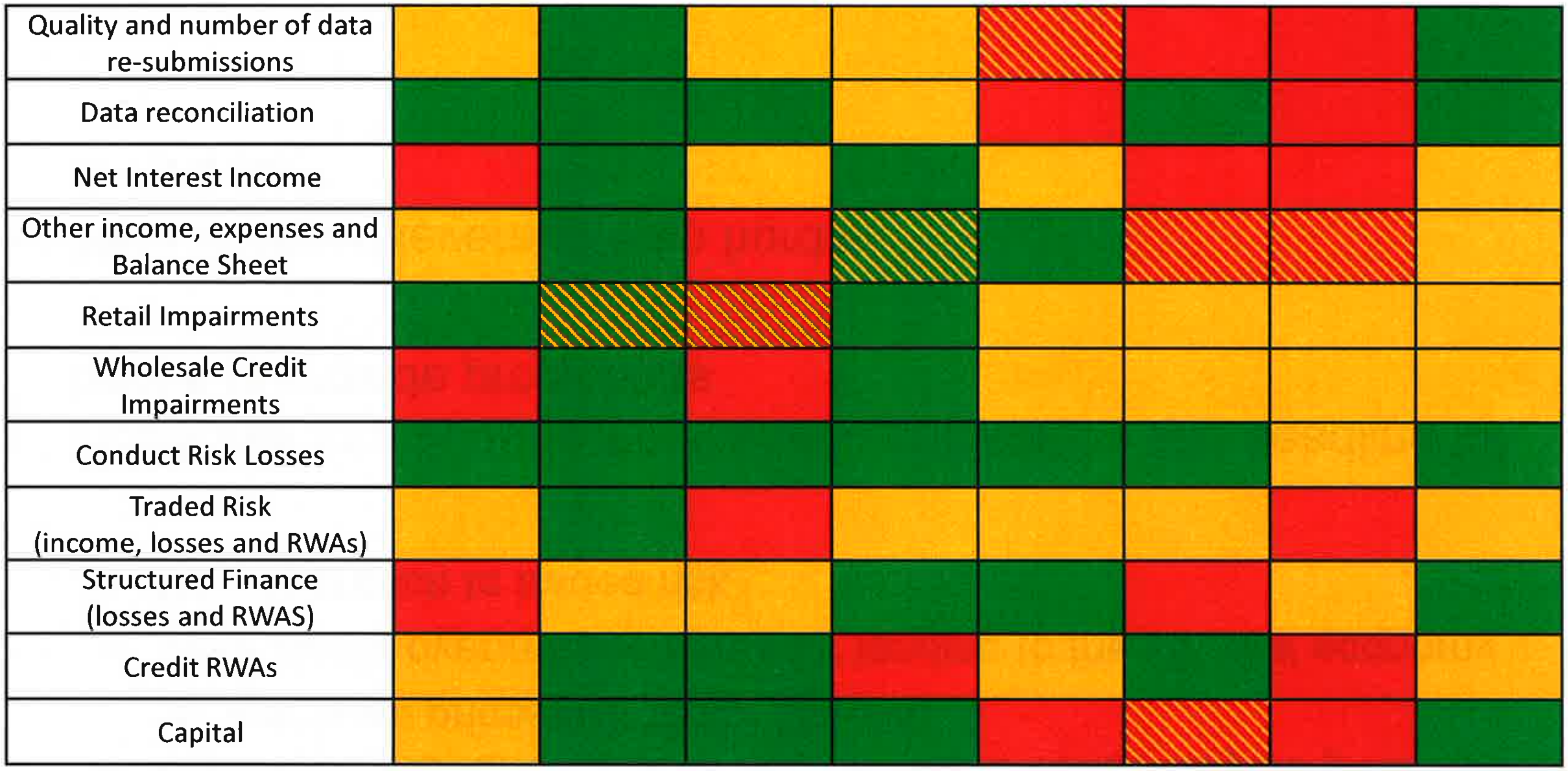
2014 qualitative review - overview of framework



Note: Results are randomised across columns

- Model validation standards insufficiently robust, some key models not validated and there were instances of models that had failed validation being used nonetheless.
- Banks significantly constrained by limitations in infrastructure and resources

2014 qualitative review - effectiveness of framework



Note: Results are randomised across columns

- Wide variation in ability to provide accurate data.
- Methodologies used to model retail credit of higher standard than those for wholesale credit and NII

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The 2015 test - implementation

- Bank of England designed all variable paths and methodology
  - Expanded scenario variable set: 68 macro variables plus yield curves/asset prices/risk factor shocks.
  - More clarity over requirements for lending to the UK real economy
  - New approach to traded risk

- Additional month between scenario publication and deadline for banks to provide projections

- New stressed leverage ratio hurdle
  - 3% tier 1

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