

An overview of the Bank of England's approach to stress testing

Analise Mercieca, Senior Manager, Stress Testing Strategy

Charlotte Gerken, Director, Prudential Policy

The Bank of England's concurrent stress testing framework provides a set of tools for policy makers to explore and better understand vulnerabilities in the banking system. It enables policymakers to assess banks' resilience, and ensures banks are adequately capitalised to withstand shocks and support the real economy if a stress materialised.

Our approach to stress testing was published in 2015¹. An updated approach will be published later in 2019. This will be shaped by the findings of the Independent Evaluation Office review of stress testing that was published in April 2019², and the Bank's response to the review³.

In the UK, we run two types of concurrent stress scenarios to ensure that policymakers can explore different vulnerabilities.

The **annual cyclical scenario** assesses risks to the capital adequacy of the banking system associated with the state of the financial cycle. Policymakers can respond to that assessment in a number of ways, including through system-wide or bank-specific capital buffers. The seven largest banks and building societies that have been participating account for the majority of lending to the UK real economy. From 2020, coverage will be extended to include an additional firm and to include ring-fenced bank subgroups of the existing participants, in addition to the banking groups.

We also have a **biennial exploratory scenario**. This probes the resilience of the system to risks that policymakers judge to be emerging threats to financial stability and individual banks, but may not necessarily be linked to the financial cycle. Participation in this exploratory scenario is more flexible. This scenario can provide a useful tool for assessing and communicating current and future challenges facing the financial sector. For example the Bank's first exploratory scenario in 2017 examined major UK banks' long-term strategic responses to increasing competitive pressures in retail banking, enabled in part by an increase in the use of financial technology. This was designed to encourage banks to think about their strategic challenges and influence future work by banks and regulators, rather than inform capital adequacy decisions.

The Bank's concurrent stress tests have enabled ways of giving early warning signals on banks as well as sector-specific risks. For example, in 2017, the annual cyclical scenario included an in-depth analysis of consumer credit that allowed Policy Committees⁴ to provide guidance to firms on the risks they faced from this particular sector. And in 2018, we assessed the potential impact of leveraged lending on UK banks following the Financial Policy Committee's (FPC) concern about its rapid growth. Another important element of the concurrent stress-testing framework is a rigorous review of participants' stress testing practices. This **qualitative review** drives improvements in risk and capital management capabilities within banks. In 2019, we are undertaking a qualitative review

¹ <https://www.bankofengland.co.uk/-/media/boe/files/stress-testing/2015/the-boes-approach-to-stress-testing-the-uk-banking-system>

² <https://www.bankofengland.co.uk/-/media/boe/files/independent-evaluation-office/2019/evaluation-of-the-boes-approach-to-concurrent-stress-testing.pdf?la=en&hash=9769CDEA6D1407E1A36E0ADEA3F5F6CE0D15304B>

³ <https://www.bankofengland.co.uk/-/media/boe/files/independent-evaluation-office/2019/the-boes-response-to-the-ieos-evaluation-of-its-approach-to-concurrent-stress-testing.pdf?la=en&hash=C8AAD855EC447980B8DB27EE9E51FACB5C2FFD43>

⁴ The Financial Policy Committee and the Prudential Regulation Committee

of the effectiveness of the banks' stress-testing frameworks against the BCBS stress-testing principles.

Additionally, concurrent stress tests continue to be complemented by individual banks' own stress tests, as part of their **Internal Capital Adequacy Assessment Process (ICAAP)**. ICAAPs explore a range of scenarios, and together with the results from concurrent stress tests, provide committees with a rich information set.

Concurrent stress tests contribute to the FPC's statutory objectives to protect and enhance the stability of the UK financial system and, subject to that, support the economic policy of the Government. Equally, they contribute to the PRC's general objective to promote safety and soundness of banks and to the PRA's secondary objective to facilitate effective competition through a proportionate approach. **Results inform policy actions** by the Financial Policy Committee (FPC) and Prudential Regulation Committee (PRC), alongside other inputs, to set macro and micro prudential capital buffers. This was a novel and ambitious approach when it was set out in 2015, and remains so today. Indeed the IMF acknowledged this in its 2016 Financial Sector Assessment Program (FSAP).

The Bank of England's annual cyclical scenario has **three key features**:

1. It is explicitly **countercyclical**. The scenario severity and associated capital buffers vary systematically with the state of the financial cycle.
2. It improves **consistency with the capital framework** as it informs buffers-setting to deal with future stress events and ensures systemically important banks are held to higher standards. It helps to set the system-wide countercyclical capital buffer (CCyB) and bank by bank buffers (PRA Buffer), serving both sets of macro and micro prudential objectives.
3. It is a **comprehensive approach**, using a range of analytical tools, that enhance our own, and firms' modelling capabilities. It ensures that participating banks continue to play an important role in producing their own projections of the impact of the stress. Our modelling strategy recognises that the models we develop are complementary to firms' models.

The UK's stress-testing framework delivers a broad range of benefits.

1. It is an integrated, regular process for decision-making around bank and system-wide capital adequacy. This helps deliver greater consistency in policymakers' assessment of capital adequacy across institutions.
2. It helps the Bank of England's accountability to Parliament, and the wider public, against its financial stability objectives.
3. It strengthens the supervisory approach, with a richer evidence base to inform supervisory judgements.
4. It enhances public confidence in the banking system, and disclosure improves market discipline in the financial system. And
5. Improves risk and capital management practices within banks.

A review by the **Bank of England's Independent Evaluation Office (IEO) on our approach to concurrent stress testing** was published in April 2019. This found that our approach was successful in delivering a forward-looking assessment of banks' resilience, and an orderly and repeatable

process for committees to inform their setting of firm, and system-wide capital requirements. It found that the macro financial coherence of the annual cyclical scenario allowed FPC members to gain insights into risks affecting the system as a whole and make judgements about the CCyB, while a common scenario has given the PRC a base to judge and compare how individual firms fare under a severe and relevant stress. The IEO also reported that efforts led to an improvement in data quality and processes. And the qualitative reviews of banks' own stress tests have been improving and helped firms understand risks better.

The IEO recommended a number of ways that could improve **concurrent stress tests further**, centred on three main themes: 1) advancing macro and microprudential objectives; 2) delivering the stress tests more effectively; and 3) communicating stress-test outcomes appropriately.

The Bank is committed to implementing the IEO's recommendations. Some will require further work and we will report on these as part of the updated 'Approach to stress testing' document.

To further **advance macro and microprudential objectives**, we will adopt a holistic approach to the design of the annual cyclical scenario, including earlier supervisory engagement. As part of this, we plan to **synthesise supervisory intelligence** annually, setting out emerging risks, to enable committees to decide whether to capture these in upcoming stress tests. This will also enable us to 'stress the stress test' by identifying issues where we can **conduct sensitivity analysis**. We also plan to set out more detail on how we expect stress test severity to behave in a downturn.

On **delivering the stress tests more effectively**, the revised approach to stress testing document will set out how we can **compress the timetable** for the annual cyclical scenario to deliver results in a more timely way. We will **review data requirements** with firms and embed good practice standards into data collection. We also plan to **establish an annual forum** with stress-test participants and stakeholders to discuss processes, methodologies, share best practices and influence the annual review of data collected for stress testing. Our **modelling strategy will become more targeted**, focussing on benchmarking firms and exploring feedback and amplification mechanisms. To support this we will invest in more granular models.

Finally, to allow us to **communicate stress-test outcomes appropriately**, we plan to establish **principles for external communication for the FPC and PRC** when choosing between different disclosure options; further expose judgements and uncertainties inherent in stress-test results to the Committees; and ensure sufficient information is provided in feedback, to help firms remediate any weaknesses identified.