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Stress testing the UK banking system: 2018 results

Bank of England (BoE)

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Research and Development

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Introduction
Context

In November 2018 the Bank of England (BoE) published the results of the fifth stress test of the UK banking system

Introduction

In March 2018, the BoE launched its 2018 stress test of the UK banking system, which covered 7 major banks accounting for around 80**%** of PRA-regulated banks' lending to the UK real economy.

The 2018 stress test is the first to be conducted under the new accounting standard, International Financial Reporting Standard 9 (IFRS 9), alongside the **annual cyclical scenario (ACS)**. In this regard, the ACS is more severe than the global financial crisis (UK GDP falls by 4.7%, UK residential property prices fall by 33%, UK bank rate rises and peaks at 4%, etc.). Although the impact of IFRS 9 came into effect on 1 January 2018, the BoE decided to include it in his report due to the proximity to December 2017. For this reason, **all end-2017 figures** in the 2018 stress test incorporate the 1 January 2018 (transitional) impact of IFRS 9.

- In this context, the BoE published in November the **2018 stress test results of the UK banking system** that have been assessed against the ACS scenario. These results include aggregated data and also the individual results of the 7 banks participating in the exercise.
- Regarding the **aggregate results of the 2018 ACS scenario**, this stress test shows that:
  - Major UK banks have continued to **strengthen their capital positions**. They started the 2018 stress test with an aggregate CET1 capital ratio nearly 3.5 times higher than before the global financial crisis.
  - The participating banks would register in aggregated at the low point of the stress a **CET1 capital ratio** of 9.2% in 2019, and a **Tier 1 leverage ratio** of 4.6% in 2018.
  - Banks could **maintain the supply of credit** to UK households and businesses in the stress, with lending to the real economy expanding by around 2% in total over the five years of the scenario.
  - The **qualitative review** on the bank's stress testing shows that all the banks participating on it have demonstrated an increased awareness of the need to implement effective model risk management framework.
- Regarding the **individual results of the 2018 ACS scenario**, this stress test reveals that no bank needs to strengthen its capital position as a result of the stress test. Further, any bank was required to submit a revised capital plan.

This Technical Note summarises the main results of the 2018 stress test.

Introduction
Sample of banks

7 UK banks participated in the test: Barclays, HSBC, Lloyds, Nationwide, RBS, Santander UK and Standard Chartered. Performance was assessed according to the 2018 ACS, addressing projections on the economic situation in UK

Sample of banks and scenarios

Sample of banks

- The 2018 stress test covered **7 banks**, accounting for around 80**%** of PRA-regulated banks' lending to the UK real economy.
  - Barclays
  - HSBC
  - Lloyds Banking Group
  - Nationwide
  - The Royal Bank of Scotland (RBS)
  - Santander UK
  - Standard Chartered

BoE's scenarios

ACS 2018

Objective: to assess bank capital adequacy

Stress-test horizon: 5 years

Types of stress: macroeconomic stress, traded risk stress, and misconduct costs stress, which are assumed to be synchronized.

Conditions

- World GDP falls by 2.4%
- UK GDP falls by 4.7%
- UK unemployment rises to 9.5%
- UK residential property prices fall by 33%
- UK commercial real estate prices fall by 40%
- UK Bank Rate rises and peaks at 4%
- The sterling exchange rate index falls by 27%

Introduction

Hurdle rate framework of the ST2018

In contrast to the ST2017, the BoE's hurdle rate framework of the 2018 ACS comprises a single risk-weighted CET1 and a single leverage ratio. Furthermore, certain amendments have been introduced such as the removal of the systemic reference point

Hurdle rate framework of the ST2018

BoE's hurdle rate framework

- The **hurdle rate framework for the 2018 ACS** has evolved in a number of ways relative to last year's test. In particular, the key changes for the 2018 stress test are:
  - The distinction between a '**hurdle rate**' and a '**systemic reference point**' has been removed.
  - The inclusion of **systemic buffers** in the hurdle rate against which banks are assessed, in order to reflect a bank's domestic systemic importance, and not just its global importance.
  - A refinement to the calculation of the **Pillar 2A element of banks' minimum capital requirements**. Each Pillar 2A risk component either scales with a simple, appropriate metric or remains as a fixed add-on in the test.
  - Adjustments to take account of the **impact of IFRS 9** under stress.

Capital

Hurdle rate:

- Definition: Minimum CET1 (4.5% of RWAs) + any Pillar 2A CET1 uplift set by PRA
- Applicable level[1]: 7.8%

	Minimum requirements (year 0)	Minimum requirements (low-point year)	Hurdle rate Pre IFRS 9 adjustment	Hurdle rate Post IFRS 9 adjustment
Aggregate	6.6	6.3	8.0	7.8

Leverage

Hurdle rate:

- Definition: Minimum Tier 1 leverage ratio (3.25%) + additional leverage ratio buffers
- Applicable level[2]: 3.52%

	Minimum requirements (year 0)	Minimum requirements (low-point year)	Hurdle rate Pre IFRS 9 adjustment	Hurdle rate Post IFRS 9 adjustment
Aggregate	3.25	3.25	3.59	3.52

(1) Percentage of CET1 (Post IFRS 9 adjustment)
(2) Percentage of exposures excluding central bank reserves (Post IFRS 9 adjustment)
(3) Systemic risk buffer.

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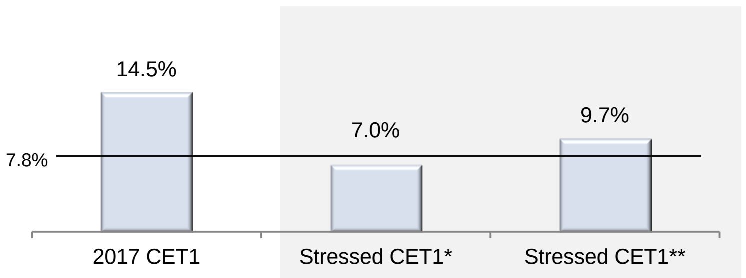
Main results

2018 Stress test - Capital

The stress scenario would reduce the aggregate CET1 capital ratio from 14.5% at the end of 2017 to a low point of 9.7% in 2019, after factoring in the management actions, including the conversion of AT1 instruments

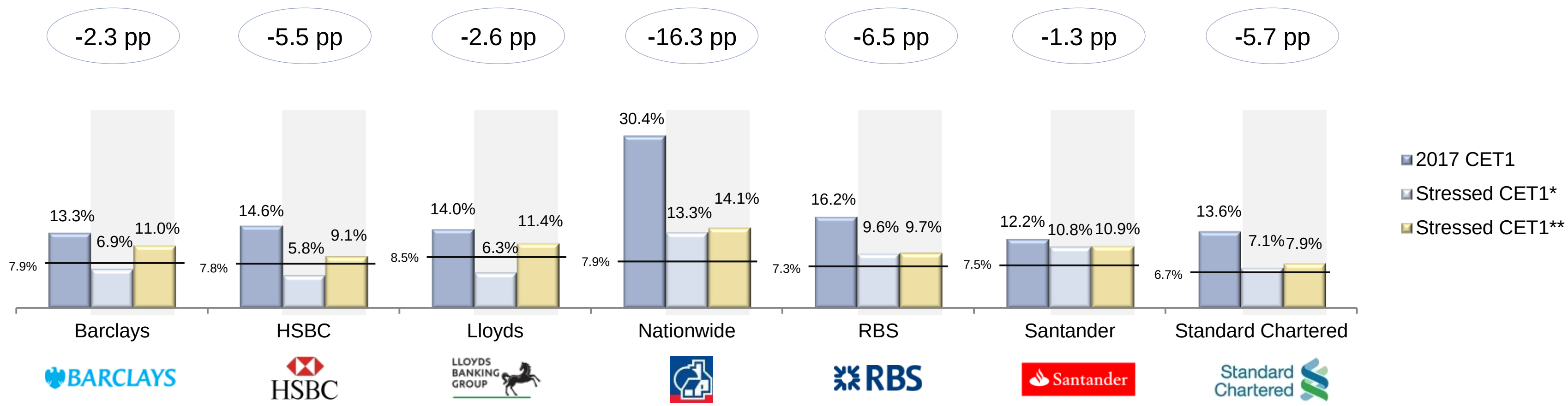
Capital

CET1: aggregated results



- As a result of the 2018 stress scenario, the aggregate CET1 ratio is reduced from **14.5%** in 2017 to a low point of **9.7%** in 2019, after considering the impact of management actions and the conversion of additional Tier 1 instruments.
- The low-point CET1 of 9.7% is **well above the average hurdle rate** (7.8%).
- At individual level, **all participating banks** meet the hurdle rate point after taking into account the strategic management actions.

CET1: individual results[1]



(1) The variation in percentage points is calculated from the 2017 ratio to the stressed 2019 ratio after factoring in the strategic management actions of banks.

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Hurdle rate
Projections

*Before strategic management actions or conversion of AT1
**After strategic management actions or conversion of AT1

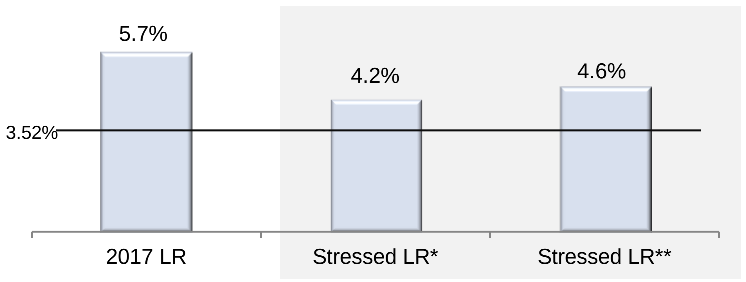
Main results

2018 Stress test - Leverage

In the stress scenario, the aggregate leverage ratio (LR) would be reduced from a 5.7% at the end of 2017 to a low point of 4.6% in 2019. Thus, it would be above the hurdle rate

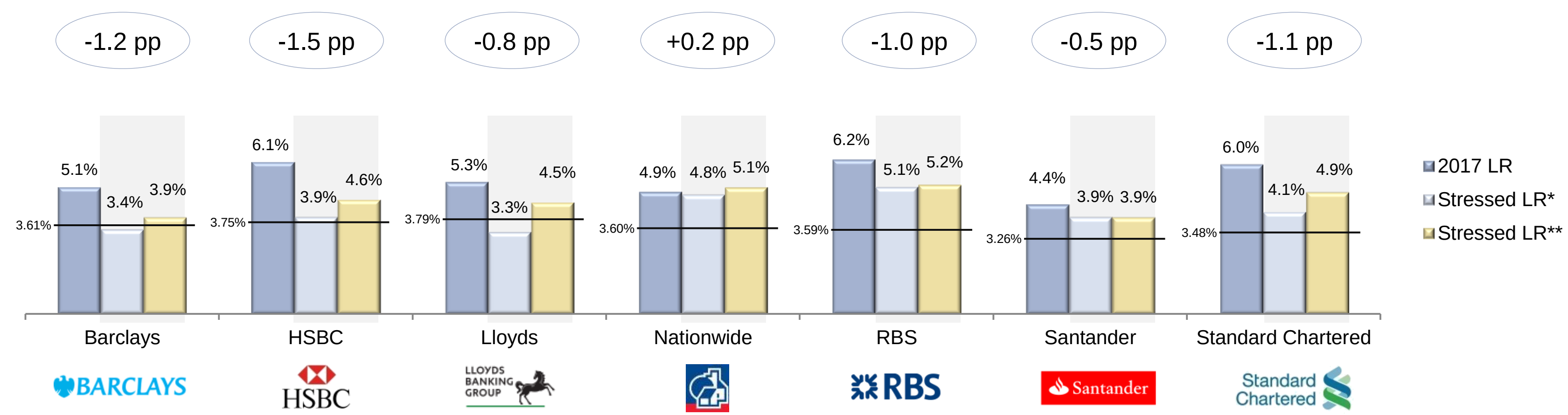
Leverage

LR: aggregate results



- The aggregate Tier 1 leverage ratio falls from **5.7%** at the end of 2017 to a low point of **4.6%** in 2019, after considering the strategic management actions.
- This minimum level of Tier 1 leverage ratio (4.2% before strategic management actions or AT1 conversion) is **above the hurdle rate** (3.52%).
- At individual level, **all participating banks** meet the hurdle rate point after taking into account the strategic management actions.

LR: individual results[1]



(1) The variation in percentage points is calculated from the 2017 ratio to the stressed 2019 ratio after factoring in the strategic management actions of banks.

Hurdle rate
Projections

*Before strategic management actions or conversion of AT1
**After strategic management actions or conversion of AT1

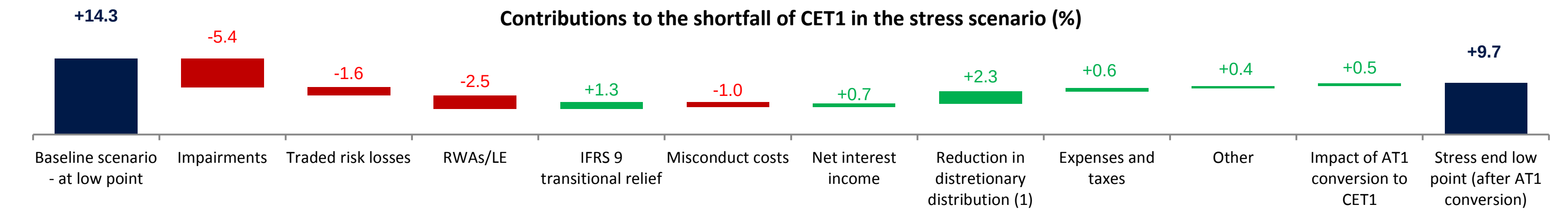
Main results

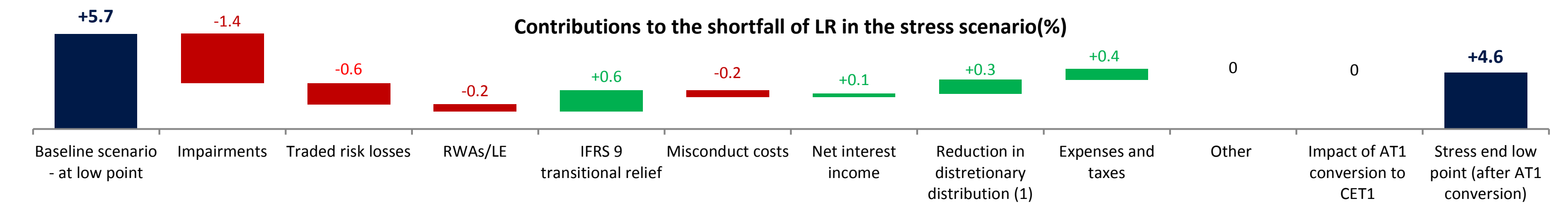
2018 Stress test - Contributions to the shortfall of CET1 and LR

These graphs explain to which extent diverse factors contribute to the increase or decrease of CET1 and LR metrics (e.g. impairments, IFRS 9, net interest income, expenses and taxes) at the stress end low point, after AT1 conversion

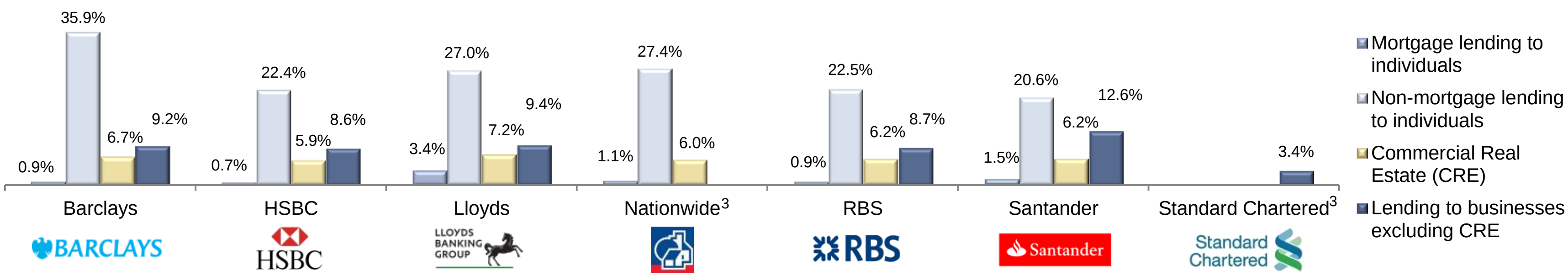
Contributions to the shortfall of CET1 and LR / Cumulative impairment rate

Contributions to the shortfall of CET1 and LR





Cumulative impairment rate to exposure (%)[2]



(1) In stress.
(2) 5-year total impairment charge / Average gross on balance sheet exposure (in stress scenario).
(3) Data reported for only certain portfolios.

Main results

2018 Stress test - Conclusions

Banks have continued to build their capital strength during 2018. At individual level, no bank was required to take action to improve its capital position as a result of the stress test

Conclusions

At aggregate level

- Major UK banks have continued to **strengthen their capital positions**. The test shows that the UK banking system is resilient to deep simultaneous recessions in the UK and global economies that are more severe overall than the global financial crisis. In particular, the 2018 stress test shows that:
  - Despite facing loss rates consistent with the global financial crisis, the major **UK banks' aggregate CET1 capital ratio** after the stress would still be **twice its level before the crisis**.
  - Banks incur **impairment charges of more than £140 billion** over the five years of the stress, which £115 billion of total impairments occur in the first two years of the test, reducing the aggregate CET1 ratio by 5.4 percentage points at the peak of the stress.
  - As domestic risk, apart from those related to Brexit, remain at a standard level overall, the Financial Policy Committee (FPC) is **maintaining the UK countercyclical capital buffer (CCyB) rate at 1%**.
- As in previous concurrent tests, the BoE also undertook a **qualitative review** of banks' stress-testing capabilities. In this regard, all banks participating in the stress test have demonstrated an increased awareness of **the need to implement effective model risk management frameworks**. Despite some banks have made good progress against PRA expectations, some banks need to make substantial improvements to raise the management of model risk to a standard required for stress testing.

At individual level

- The Prudential Regulation Committee (PRC) judged that the 2018 stress test **did not reveal capital inadequacies** for Barclays, HSBC, Lloyds Banking Group, Nationwide Building Society, RBS, Santander UK and Standard Chartered, given their balance sheet at end-2017.
- Therefore, the PRC **did not require** all participating banks to **submit a revised capital plan**.