After the first year of IFRS 9
Analysis of the initial impact on the large UK banks
July 2019
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Executive summary

After the first year of reporting, IFRS 9 has resulted in an increase in the banks’ provisioning levels but not significantly impacted financial results and regulatory capital resources. However, the longer term consequences of the banks implementing differing IFRS 9 impairment provision modelling judgements are not yet known.

Impact on the UK banking industry
The UK banking industry is dominated by a handful of large banking groups classified as D-SIBs by the PRA. The six largest of the UK banks, namely Barclays, HSBC, RBS, LBG, SCB and San UK (please refer to page 37 for more details on “the banks”) are the focus of the analysis in this report.

The initial impact of IFRS 9 on the banks’ financial results and regulatory capital resources has not been as severe as some had expected. The banks’ saw increases in total IFRS 9 impairment provisions of between 16.1% – 58.4% at transition on 1 January 2018, which caused a direct reduction of accounting retained earnings and consequences for regulatory capital resources. However, whilst the banks’ lending exposures generally grew during the year, by the end of the 2018 reporting period the banks had reflected decreases in total IFRS 9 impairment provisions of between (2.3%) – (34.8%). This was primarily driven by write-offs of Stage 3 exposures.

A number of offsetting forces, such as the reduction in accounting retained earnings, IFRS 9 transitional arrangements and other related regulatory adjustments, has resulted in slight volatility between regulatory capital constituents.

It is clear that IFRS 9 has allowed the banks latitude to make differing judgements when modelling IFRS 9 impairment provisions, and in deciding how best to disclose this information within financial and regulatory reporting. Notable examples of differing judgements are in terms of the SICR thresholds implemented, the responses to Brexit uncertainties and other IFRS 9 impairment provision overlays/PMAs, MES structure and weightings, sensitivity analysis disclosures and revolving facility expected lifetime assumptions.

These different approaches have not significantly impacted the banks’ financial results and regulatory capital resources whilst in a benign credit environment. However, it is not yet known how total IFRS 9 impairment provisions and impairment charges will behave during future periods of stress. This uncertainty is further exacerbated by the IFRS 9 transitional arrangements, which may result in greater volatility between regulatory capital resource constituents in the future.

Key topics covered in this report

- **Comparability challenges:** Notable challenges experienced in comparing the banks’ financial regulatory reporting.
- **Financial results impact:** Analysis of the impact of IFRS 9 on the banks’ financial performance and position.
- **Regulatory capital impact:** The interaction between IFRS 9 and the regulatory capital resources of the banks.
- **IFRS 9 impairment modelling judgements:** Summary of the key areas of alignment and divergence in the IFRS 9 impairment modelling judgments made by the banks.
Glossary

The below abbreviations have been used throughout this report.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art.</td>
<td>Article</td>
</tr>
<tr>
<td>BAU</td>
<td>Business as usual</td>
</tr>
<tr>
<td>BOE</td>
<td>Bank of England</td>
</tr>
<tr>
<td>Bps</td>
<td>Basis points</td>
</tr>
<tr>
<td>CET1</td>
<td>Core Equity Tier 1</td>
</tr>
<tr>
<td>CRR</td>
<td>Capital Requirements Regulation</td>
</tr>
<tr>
<td>D-SIB</td>
<td>Domestic Systemically Important Bank</td>
</tr>
<tr>
<td>EBA</td>
<td>European Banking Authority</td>
</tr>
<tr>
<td>ECL</td>
<td>Expected Credit Loss</td>
</tr>
<tr>
<td>EL</td>
<td>Expected Loss</td>
</tr>
<tr>
<td>FI</td>
<td>Financial Institution</td>
</tr>
<tr>
<td>FLI</td>
<td>Forward Looking Information</td>
</tr>
<tr>
<td>FRC</td>
<td>Financial Reporting Council</td>
</tr>
<tr>
<td>FSB</td>
<td>Financial Stability Board</td>
</tr>
<tr>
<td>FY</td>
<td>Financial Year</td>
</tr>
<tr>
<td>G-SIB</td>
<td>Global Systemically Important Bank</td>
</tr>
<tr>
<td>GBP</td>
<td>Great British Pound</td>
</tr>
<tr>
<td>GCRA</td>
<td>General Credit Risk Adjustment</td>
</tr>
<tr>
<td>GCV</td>
<td>Gross Carrying Value</td>
</tr>
<tr>
<td>GPPC</td>
<td>Global Public Policy Committee</td>
</tr>
<tr>
<td>HPI</td>
<td>House Price Index</td>
</tr>
<tr>
<td>I/S</td>
<td>Income Statement</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Term</th>
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<tr>
<td>IFRS</td>
<td>International Financial Reporting Standard</td>
</tr>
<tr>
<td>IRB</td>
<td>Internal Ratings-Based</td>
</tr>
<tr>
<td>L&amp;AC</td>
<td>Loans &amp; Advances to Customers</td>
</tr>
<tr>
<td>L&amp;AB</td>
<td>Loans &amp; Advances to Banks</td>
</tr>
<tr>
<td>MES</td>
<td>Macroeconomic Scenario</td>
</tr>
<tr>
<td>NPL</td>
<td>Non-performing Loan</td>
</tr>
<tr>
<td>OPL</td>
<td>Other Personal Lending</td>
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<tr>
<td>PD</td>
<td>Probability of Default</td>
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<tr>
<td>PIT</td>
<td>Point in Time</td>
</tr>
<tr>
<td>PMA</td>
<td>Post Model Adjustment</td>
</tr>
<tr>
<td>PnL</td>
<td>Profit and Loss</td>
</tr>
<tr>
<td>POCI</td>
<td>Purchased or Originated Credit Impaired</td>
</tr>
<tr>
<td>PRA</td>
<td>Prudential Regulatory Authority</td>
</tr>
<tr>
<td>RWA</td>
<td>Risk Weighted Assets</td>
</tr>
<tr>
<td>SCRA</td>
<td>Specific Credit Risk Adjustment</td>
</tr>
<tr>
<td>SICR</td>
<td>Significant Increase in Credit Risk</td>
</tr>
<tr>
<td>SA</td>
<td>Standardised Approach</td>
</tr>
<tr>
<td>TTC</td>
<td>Through the Cycle</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>LTP</td>
<td>Unlikeliness to Pay</td>
</tr>
</tbody>
</table>
Comparability challenges

The UK banking industry, in particular the large UK banks, invested significant resources to update financial and regulatory reporting for IFRS 9. However, there are still certain aspects that make performing comparisons between the banks challenging.

We expect over time these differences will reduce following regulatory pressure and peer group assessments. In spite of this, it should not be expected that banks will follow identical approaches, as each has a unique credit risk profile. Below we note five of the key challenges experienced in performing the analysis on the banks’ financial and regulatory reporting.

**Use of IFRS 9 impairment provision overlays**
The bulk of the banks disclosed IFRS 9 impairment provision overlays relating to Brexit uncertainty. However, the banks have not always provided extensive explanations of how the balances were calculated. Further detail of the different approaches followed by the banks is included on page 27.

**Regulatory CRR Art. 62/159 calculations**
The banks have not always disclosed a full breakdown of the Tier 2 add back or CET1 deduction calculations required in terms of CRR Art. 62 & 159.

LBG is one exception and in table 45 of its Pillar 3 Report provided a reconciliation that clearly shows the link from its total IFRS 9 impairment provisions, IRB SCRAs, IRB EL and the CRR Art. 62/159 calculations.

**Presentation of quantitative disclosure comparatives**
The banks have not consistently presented comparatives in the quantitative disclosures included in the Credit Risk and Notes to the Financial Statement sections of the Annual Reports.

In certain cases the 31 December 2017 balances (IAS 39) are shown alongside 31 December 2018 (IFRS 9) balances, which may not be comparable. In other cases the 1 January 2018 balances (IFRS 9) are shown.

**Macroeconomic variable expectations**
The banks have only presented forecast macroeconomic variables as averages over the forecast period.

HSBC, however, provided additional graphical representations of its GDP expectations for each of its key geographies over the forecast horizon, showing the different paths forecast across each of the scenarios.

**Link between the consolidated financial statements and associated disclosures**
The banks have presented consistent consolidated financial statement line items but in certain cases have followed inconsistent approaches in presenting the associated Credit Risk and Notes to the Financial Statements disclosures. For example, RBS and Barclays only provide certain Credit Risk disclosures at a total loans level, whilst others take a more granular approach and disaggregate into L&AC and L&AB.

Another example is the different level of granularity in terms of product, industry or geography credit risk metrics. This tends to be more challenging for the banks with broader geographical exposures, such as HSBC and SCB.
Financial results impact
Financial results impact

There has not been a significant impact to the banks’ financial results since the transition to IFRS 9 on 1 January 2018. The banks followed a similar trend during the 2018 reporting period, growing lending exposures slightly whilst reflecting larger decreases in the related IFRS 9 impairment provisions. These decreases were primarily driven by Stage 3 write-offs.

In this section we provide insight into the aspects of the banks’ financial results most impacted by the updated impairment considerations of IFRS 9.

**Analysis**

We analysed the aspects of the banks’ financial results included in the banks’ 2018 Annual Reports and Transition to IFRS 9 Reports (or equivalent) that were most impacted by IFRS 9 impairment. We analysed the change in the banks’ total impairment provisions at transition to IFRS 9 on 1 January 2018 as well as the subsequent changes during the 2018 reporting period. We also linked the change in the IFRS 9 impairment provisions to the IFRS 9 impairment charge and compared this to the IAS 39 historical equivalent.

In the appendix there is further analysis on the banks’ total L&AC, as this was the banks’ balance sheet line item against which the largest proportion of IFRS 9 impairment provisions are held. This has been performed at both a total bank and portfolio level. For the portfolio level analysis we segmented the banks’ portfolios into total Wholesale, total Retail: Mortgages and Retail: OPL. At a total bank level we looked at the changes in the balance sheet GCV and the related IFRS 9 impairment provisions during the 2018 financial year. At a portfolio level we looked at the staging proportions of GCV and IFRS 9 impairment provisions at the end of the 2018 financial year and compared coverage ratios, calculated as GCV divided by IFRS 9 impairment provisions, across the banks. An assumption has been made to allocate corporate centre related balances to the bank’s Wholesale portfolio.

**Key takeaways**

- Each of the banks experienced increases in total impairment provisions at transition to IFRS 9 on 1 January 2018.
- Total IFRS 9 impairment charges in the 2018 reporting period were generally in line with or slightly lower than the IAS 39 equivalent in the previous two reporting periods.
- The banks generally saw increases in L&AC GCV during the 2018 financial year across both Retail and Wholesale portfolios.
- All of the banks saw total decreases in IFRS 9 impairment provisions relating to L&AC GCV during the 2018 financial year, primarily driven by Stage 3 write-offs.
Financial results impact
Impact of transition to IFRS 9

The UK banks elected to not restate comparatives and, as a result, adjusted total balance sheet impairment provisions at transition to IFRS 9 on 1 January 2018.

Each of the banks saw an increase in the total level of balance sheet impairment provisions from transitioning to IFRS 9. Notably LBG and Barclays had the largest increases of 58.4% and 57.9% respectively, whilst the other banks saw increases of between 16.1% – 30.2%.

Breakdown of change in total impairment provisions at transition to IFRS 9
The below graphs depict the change in total balance sheet impairment provisions at transition to IFRS 9 on 1 January 2018 as presented in the Transition to IFRS 9 Reports (or equivalent) and updated based on the 2018 Annual Reports. The increases were primarily driven by 12m ECL on Stage 1 exposures and Lifetime ECL on Stage 2 and 3 exposures.

Please note that the banks have not always consistently provided the same level of granularity for these disclosures. LBG, for example, presented the below disaggregation in its Transition to IFRS 9 Report (or equivalent) on an underlying basis and not an IFRS basis. HSBC and SCB also adjusted the 1 January 2018 IFRS 9 impairment provision opening balances during the 2018 reporting period since the release of the Transition to IFRS 9 Reports (or equivalent).
Change in total balance sheet impairment provisions from transitioning from IAS 39 to IFRS 9 on 1 January 2018

Source: Bank financial disclosures, Deloitte analysis

**IAS 39 to IFRS 9 impairment provisions reconciliation:**

- A - IAS 39 balance at 31 December 2017
- B - Reversal of IAS 39 latent provision
- C - IFRS 9 reclassifications
- D - 12m ECL on Stage 1 exposures
- E - Lifetime ECL on Stage 2 and 3 exposures
- F - Use of MES
- G - Other adjustments
- H - IFRS 9 balance at 1 January 2018
Financial results impact

IFRS 9 impairment charge

Change in total IFRS 9 impairment provisions and impact on IFRS 9 impairment charges

The UK banks elected to not restate comparatives and, as a result, adjusted total balance sheet impairment provisions at transition to IFRS 9 on 1 January 2018.

Each of the banks saw an increase in the total level of balance sheet impairment provisions from transitioning to IFRS 9. Notably LBG and Barclays had the largest increases of 58.4% and 57.9% respectively, whilst the other banks saw increases of between 16.1% – 30.2%.
After the first year of IFRS 9 | Analysis of the initial impact on the large UK banks

Source: Bank financial disclosures, Deloitte analysis

IFRS 9 impairment provision reconciliation

### Key:
- **A**: Opening Balance
- **B**: Net new lending
- **C**: Impact from staging transfers
- **D**: Other remeasurements
- **E**: Other movements with an income statement
- **F**: Repayments
- **G**: Disposals
- **H**: Write-offs
- **J**: Recoveries
- **K**: Closing Balance

### IFRS 9 Impairment Charge – Income statement key:
- **L**: Income statement impact from change in impairment provision
- **M**: Net recoveries
- **N**: Other movements with an income statement impact only
- **O**: Total IFRS 9 Impairment Charge
Financial results impact
IAS 39 vs. IFRS 9 impairment charge

Change in total IFRS 9 impairment provisions and impact on IFRS 9 impairment charges
The below graphs compare the total income statement IFRS 9 impairment charge from the 2018 reporting period against the IAS 39 equivalent from the previous two reporting periods. With the exception of LBG, the banks’ IFRS 9 impairment charges were generally in line with or slightly lower than in the previous two reporting periods.

The purpose of presenting a comparison of the IFRS 9 impairment charge alongside historical IAS 39 impairment charges, is to highlight the portion of the change in total balance sheet impairment provisions that have the direct impact of reducing accounting retained earnings. Accounting retained earnings is used as one the building blocks for regulatory capital resources before other regulatory adjustments. Therefore, comparing the bank’s IFRS 9 impairment charge with historical IAS 39 impairment charges, provides an indication of the relative impact to regulatory capital resources from changes in credit risk dynamics under both of the different accounting standards.

Please note that it is otherwise not appropriate to directly compare the IAS 39 and IFRS 9 impairment charges, because of the incomparable basis used for calculating the impairment provisions.

Financial Result 4
IAS 39 to IFRS 9 impairment charge comparison

Source: Bank financial disclosures
Regulatory capital impact
Regulatory capital impact

The initial impact of IFRS 9 on regulatory capital resources has been limited and further reduced by the IFRS 9 transitional arrangements. However, going forward there may be greater volatility in capital resources as the levels of IFRS 9 impairment provisions change and the transitional relief phases out.

In this section we explore the impact of IFRS 9 on the regulatory capital position of the banks.

Analysis

We analysed the regulatory capital disclosures included in each banks’ 2018 Annual Reports and Pillar 3 disclosures (or equivalent) to understand the impact of IFRS 9 on the regulatory capital position of the banks. In particular we looked at the interaction between IFRS 9 provisions, regulatory capital and the dependency on the regulatory credit risk measurement approach associated to the exposures for which the provisions relate.

To understand the extent of the impact of the IFRS 9 transitional arrangements we analysed the key disclosures in the Pillar 3 reports (or equivalent), where the banks provided the key capital metrics and ratios before and after the impact of the IFRS 9 transitional arrangements.

Key takeaways

- The increase in the banks’ IFRS 9 impairment provisions at transition on 1 January 2018 had a detrimental impact on regulatory capital ratios, although, due to a number of partially offsetting factors, this impact was not substantial. These factors included positive Classification & Measurement effects on accounting reserves at transition, the IFRS 9 transitional arrangements, reduced excess EL deductions, standardised RWAs and deferred tax assets.

- The impact of IFRS 9 on regulatory capital resources is dependent on whether exposures are measured under the SA or IRB modelling approaches. For SA exposures the increases in IFRS 9 impairment provisions reduced regulatory capital, which was partially offset by lower risk weighted assets (as exposures are calculated net of SCRAs). For IRB exposures there is a separately calculated deduction to CET1 capital resources based on the difference between IRB EL and SCRAs. The extent of this deduction has decreased since transition to IFRS 9.

- The transitional arrangements have enabled the banks to “add back” a portion of the negative regulatory capital adjustments, thereby reducing the impact of increased IFRS 9 impairment provisions. Although, the extent of the add-backs have been relatively moderate, partially driven by reductions in IFRS 9 impairment provisions during the 2018 reporting period.
## Regulatory capital impact

### Introduction and transition to IFRS 9

#### Introduction

The increased level of IFRS 9 impairment provisions notably impacted a number of elements used in the banks’ regulatory capital ratio calculations, when these elements are considered in isolation. However, when considered in aggregate there were offsetting effects that resulted in the relatively mild impact on regulatory capital ratios.

#### Transition to IFRS 9

All the banks experienced increases in IFRS 9 impairment provisions after transition from IAS 39 on 1 January 2018. The after tax impact of the increased IFRS 9 impairment provisions, in conjunction with the adjustments required by the Classification & Measurement aspects of IFRS 9, largely resulted in the reduction of the banks’ regulatory capital and associated metrics. However, the IFRS 9 transitional arrangements helped to reverse a significant portion of that negative moment.

The mechanics of the IFRS 9 transitional arrangements are discussed in more detail on page 20.

#### Change in CET1 excluding the transitional arrangements, at transition to IFRS 9

The impact of the transition to IFRS 9 on the banks’ regulatory capital ratios was relatively modest, even before the application of the IFRS 9 transitional arrangements. Whilst the banks all experienced increases in IFRS 9 impairment provisions, this negative impact to regulatory capital was offset by positive Classification & Measurement related changes for banks such as RBS and HSBC. RBS, for example, benefited from reclassifying one major portfolio that failed SPPI to fair value and HSBC reclassified certain long-dated issued debt instruments to amortised cost.

#### Regulatory 2

**Bps change in CET1 including the IFRS 9 transitional arrangements – 1/01/2018**

- Barclays: 4 bps decrease
- HSBC: 12 bps decrease
- RBS: 30 bps increase
- LBG: 0 bps
- SCB: (1) bps decrease
- San UK: (5) bps decrease

Source: Bank regulatory disclosures

**Change in CET1 including the transitional arrangements at transition to IFRS 9**

The IFRS 9 transitional arrangements helped to largely eliminate a possible negative impact from transition to IFRS 9.

This resulted in positive increases in CET1 ratios for RBS, HSBC and Barclays with increases of 30 bps, 12 bps and 4 bps respectively. There was no impact for SCB.

LBG and San UK experienced in CET1 ratios minimal decreases of 1 bps and 5 bps respectively.

Source: Bank regulatory disclosures
Financial results impact
Regulatory view of provisions

Comparison of total IFRS 9 impairment provisions with the equivalent regulatory view
The IFRS 9 impairment provisions recognised in the statement of financial position at 31 December 2018 ("accounting view") differ from the IFRS 9 impairment provision amounts applied for regulatory purposes ("regulatory view"). The below graphs depict the % difference between the accounting and regulatory views of the banks’ total IFRS 9 impairment provisions, which is used to calculate the provision misalignment to regulatory capital discussed on page 18. With the exception of San UK, all banks’ regulatory view of IFRS 9 impairment provisions exceeded the accounting view.

The main reason for the upward adjustment seen below is the difference between the accounting scope of consolidation in terms of IFRS and the regulatory scope of consolidation in terms of CRR. For example, banking associates are proportionally consolidated from a regulatory perspective. However, there are also other elements that reduce the regulatory view of IFRS 9 impairment provisions, such as the deconsolidation of insurance subsidiaries, the deconsolidation of securitisation vehicles and the removal of accounting provisions associated with securitisation exposures.

Source: Bank regulatory disclosures
Regulatory capital impact

Regulatory modelling approaches

Regulatory view of IFRS 9 impairment provisions split between modelling approaches
The treatment of changes in IFRS 9 provisions on regulatory capital ratio calculations is dependent on the approach being applied for measuring regulatory credit risk. In other words, IFRS 9 impairment provisions on exposures for which credit risk RWAs are calculated under the standardised approach have a different impact on regulatory capital resources than for exposures under which the IRB approach is applied.

As depicted in the graphs below, San UK, Barclays and HSBC are the banks that had a relatively higher proportion of IFRS 9 impairment provisions under the regulatory view related to SA exposures relative to the provisions related to IRB exposures, while a large majority of the provisions at RBS, LBG and SCB were related to IRB exposures. These proportions have varied relatively little during 2018.

Regulatory 4
Regulatory view of IFRS 9 impairment provisions split – 31/12/2018 (outside) vs 31/12/2017 (inside)

Source: Bank financial disclosures, Deloitte analysis

Treatment of provisions related to SA exposures
The treatment of IFRS 9 impairment provisions related to SA exposures is dependent on whether these provisions are specific (SCRAs) or general (GCRAs) from a regulatory perspective. SCRAs reduce the exposures when calculating RWAs while GCRAs are added to Tier 2 capital (subject to a cap).

IFRS 9 impairment provisions had two opposite, but not fully offsetting, effects on capital ratios, as all Stage 1 and 2 IFRS 9 impairment provisions are considered to be SCRs in the EU. Firstly, the increases in IFRS 9 impairment provisions reduced regulatory capital levels as a result of the after tax reduction on accounting reserves (i.e. retained earnings). Secondly, the RWAs related to the exposures benefitted from the lower exposure levels as exposures were calculated net of SCRs. The overall impact on capital ratios was negative as the first detrimental effect was greater than the second beneficial effect.

\[
\text{Capital ratio} = \frac{\text{Capital}}{\text{RWAs}}
\]

Going forward, any increase in the regulatory view of IFRS 9 impairment provisions related to SA exposures is likely to have a detrimental effect on capital ratios and vice versa, any reduction is likely to benefit capital ratios.

The banks did not separately disclose the impact of IFRS 9 on SA exposures in the Pillar 3 reports (or equivalent).
### Regulatory capital impact

#### Regulatory modelling approaches

**Treatment of provisions related to IRB exposures**

The treatment of IFRS 9 impairment provisions related to IRB exposures is more complex and dependent on the comparison between regulatory expected loss (IRB EL) and the provisions related to the IRB exposures (IRB SCRAs, as under the IRB approach there is no distinction between GCRAs and SCRAs). After taking into account the required regulatory adjustments (e.g. prudent valuation adjustments), banks are required to either deduct the shortfall of IRB SCRAs relative to IRB EL from CET1 capital in accordance with CRR Art. 159 or add back the excess of IRB SCRAs to Tier 2 capital in accordance with CRR Art. 62 (subject to a cap).

<table>
<thead>
<tr>
<th>Regulatory IRB expected loss (IRB EL)</th>
<th>IFRS 9 impairment provisions on IRB (IRB SCRAs)</th>
<th>Regulatory IRB expected loss (IRB EL)</th>
<th>IFRS 9 impairment provisions on IRB (IRB SCRAs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shortfall</strong></td>
<td>Deducted from CET1</td>
<td><strong>Excess</strong></td>
<td>Added to Tier 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total capital ratio =</td>
<td>CET1 + AT1 + Tier 2</td>
<td></td>
<td>0.6% of IRB credit risk RWAs</td>
</tr>
<tr>
<td></td>
<td>RWAs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The banks generally had a greater excess of IRB EL relative to IRB SCRAs before the transition to IFRS 9. This would have resulted in a deduction from CET1 in terms of the above calculation. The increase in IRB SCRAs, as a consequence of the increase in IFRS 9 impairment provisions since transition to IFRS 9, has had a negative impact on CET1 through a reduction in accounting reserves. This negative impact to CET1 has been offset somewhat by a reduction in the above CET1 deduction.

The overall impact on CET1 capital, therefore, has been muted where a shortfall of IRB SCRAs relative to IRB EL existed. In the case of Barclays for instance, the increase in IRB SCRAs was such that it resulted in an excess of IRB SCRAs over the IRB EL, and which was added back to Tier 2 capital.

The following graphs outline the substantial reduction in the CET1 capital deduction required by CRR Art. 159 between 2017 and 2018. Whilst this deduction will be impacted by a number of factors (credit quality, business/portfolio changes, economic conditions, IFRS 9 transitional arrangements etc.), it is clear that the implementation of IFRS 9 has had a substantial offsetting impact. The reduction in the banks’ CET1 capital deduction ranged between (20%) – (100%).
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CET1 capital deduction - shortfall (positive) / Tier 2 capital add back - excess (negative)

<table>
<thead>
<tr>
<th>Bank</th>
<th>2017 Reporting Period</th>
<th>2018 Reporting Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays</td>
<td>£m</td>
<td>1,239</td>
</tr>
<tr>
<td>LBG</td>
<td>£m</td>
<td>497</td>
</tr>
<tr>
<td>HSBC</td>
<td>$m</td>
<td>2,820</td>
</tr>
<tr>
<td>SCB</td>
<td>$m</td>
<td>1,142</td>
</tr>
<tr>
<td>RBS</td>
<td>£m</td>
<td>1,286</td>
</tr>
<tr>
<td>San UK</td>
<td>£m</td>
<td>748</td>
</tr>
</tbody>
</table>

Source: Bank regulatory disclosures
**Regulatory capital impact**

**IFRS 9 transitional arrangements**

**Introduction to the IFRS 9 transitional arrangements**

UK banks were given the election in early 2018 to phase in the impact of increased IFRS 9 impairment provisions on regulatory capital through adoption of the IFRS 9 transitional arrangements as set out under CRR Art. 473a.

Each of the banks have elected to adopt the IFRS 9 transitional arrangements. The IFRS 9 transitional arrangements allow the initial net impact on CET1 capital resulting from the increase in IFRS 9 impairment provisions to be phased in over a five year transition period. They also allow the same for the capital impact of any subsequent increases in Stage 1 and Stage 2 exposures (net of movements in regulatory expected losses).

**Summary of IFRS 9 transitional arrangements**

The result of the IFRS 9 transitional arrangements is relief in the form of an add-back to CET1 capital, based on the calculation outlined below:

<table>
<thead>
<tr>
<th>Static element</th>
<th>Dynamic element</th>
<th>Tax Impact</th>
<th>Scaling Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference between IAS 39 at 31 December 2017 and IFRS 9 impairment provisions at 1 January 2018</td>
<td>Subsequent increases in stages 1 and 2 IFRS 9 impairment provisions from 1 January 2018 to reporting date</td>
<td>Tax implications resulting from increases in IFRS 9 impairment provisions</td>
<td>Transitional scalar factor (reducing annually until full implementation in 2023)</td>
</tr>
<tr>
<td>Same as for standardised, but only to the extent that IFRS 9 impairment provisions exceed IRB expected loss</td>
<td>Same as for standardised, but only to the extent that IFRS 9 impairment provisions exceed IRB expected loss</td>
<td>Tax implications resulting from increases in IFRS 9 impairment provisions</td>
<td></td>
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</tbody>
</table>

Separate calculations are required for SA and IRB portfolios, reflecting the different ways these frameworks take account of IFRS 9 impairment provisions. For SA portfolios, increases in IFRS 9 impairment provisions for both the static and dynamic elements are eligible for relief. Whilst for IRB portfolios, for both the static and dynamic elements, IFRS 9 impairment provisions are only eligible for transitional relief to the extent that they exceed IRB EL.

The impact of IFRS 9 on the SA and IRB modelling approaches is discussed further on pages 17 and 18.
Regulatory capital impact

Regulatory modelling approaches

**Change in CET1 ratio as a result of IFRS 9 transitional arrangements**

At the end of the 2018 reporting period there continued to be a relatively negligible benefit of between 10 bps – 40 bps in the banks’ CET1 ratios as a result of implementing the IFRS 9 transitional arrangements and the reduction of IFRS 9 impairment provisions during the reporting period. The exception was RBS and San UK, which do not reflect a bps change in CET1 when removing the effect of the IFRS 9 transitional arrangements.

A large majority of the banks’ new IFRS 9 impairment provisions were associated with IRB exposures, which prior to the application of the transitional arrangements largely absorbed the excess of IRB EL over provisions. The CET1 effect of transitional arrangements on IRB exposures was neutral as any capital add-ons were effected net of movements in regulatory expected losses.

Barclays, in contrast, exhibited a 40 bps benefit in CET1 from applying the IFRS 9 transitional arrangements. This was mostly due to its notably larger share of the IFRS 9 provisions associated with SA exposures. The IFRS 9 transitional arrangements helped to reverse some of the detrimental effects on CET1 associated with holding these exposures.

**Reversal of IFRS 9 transitional relief benefit**

The table below provides a breakdown of the impact to CET1, Tier 2 capital and total capital resources if the IFRS 9 transitional arrangements were to be reversed at 31 December 2018. All the banks, except RBS, would experience a decrease in CET1 and total capital resources. Only LBG and Barclays would experience increases in Tier 2 capital resources of £536m ands £159m respectively.

**Regulatory 7**

**Impact of the reversal of IFRS 9 transitional arrangements on capital resources**

<table>
<thead>
<tr>
<th></th>
<th>Barclays</th>
<th>HSBC</th>
<th>RBS</th>
<th>LBG</th>
<th>SCB</th>
<th>San UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET1 capital resources</td>
<td>(£1,285m)</td>
<td>($1,000m)</td>
<td></td>
<td>(£575m)</td>
<td>($402m)</td>
<td>(£21m)</td>
</tr>
<tr>
<td>Tier 2 capital resources</td>
<td>£159m</td>
<td></td>
<td></td>
<td>£536m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total capital resources</td>
<td>(£1,126m)</td>
<td>($1,000m)</td>
<td></td>
<td>(£39m)</td>
<td>($402m)</td>
<td>(£21m)</td>
</tr>
</tbody>
</table>

Source: Bank financial disclosures, Deloitte analysis
After the first year of IFRS 9

Analysis of the initial impact on the large UK banks

IFRS 9
impairment
modelling
judgements
IFRS 9 impairment modelling judgements

The banks were required to make many judgments in constructing models to comply with the IFRS 9 impairment requirements. Differing approaches for certain key judgements may result in IFRS 9 impairment provisions behaving inconsistently, particularly during future periods of stress.

In this section we categorise key aspects of the banks’ IFRS 9 impairment modelling judgements based on whether similar or differing approaches have been followed.

Analysis
We analysed the IFRS 9 impairment provision modelling judgements detailed in the banks’ 2018 Annual Reports. The focus was on the IFRS 9 impairment provision modelling related detail, which was included in both the Credit Risk and Notes to the Financial Statement sections of the Annual Reports.

We summarised certain key aspects of the banks’ IFRS 9 impairment provision modelling judgements where generally similar approaches have been followed.

We further summarised aspects of the banks’ IFRS 9 impairment provision modelling judgements where more pronounced differences were noted and categorised some of the approaches where applicable.

Key takeaways

There is alignment in the application of certain key areas of IFRS 9 impairment modelling judgments, such as for the applicable definitions of default, the approach to determining SICR, the approach to curing/persistence periods, and the structure of forward-looking macroeconomic variables.

There are divergences in the application of certain key areas of IFRS 9 impairment modelling judgments, such as for the setting of SICR thresholds, the use of IFRS 9 impairment provision overlays/PMAs, the response to Brexit uncertainties, MES approach and weightings, the application of sensitivity analysis, and expected lifetime assumptions.
# IFRS 9 impairment modelling judgements

## Alignment in approach

### Introduction
The banks are broadly aligned in their application of certain key areas of IFRS 9 impairment modelling judgments detailed in the banks’ annual reports.

This includes IFRS 9 impairment modelling judgements such as the:
- Applicable definition of default;
- Approach to determining an SICR;
- Approach to curing/persistence periods; and
- Structure of forward-looking macroeconomic variables.

### Alignment in approach

<table>
<thead>
<tr>
<th>Area</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition of default</strong></td>
<td>The banks are applying definitions of default for IFRS 9 that are mostly aligned with the regulatory arrears definition and UTP indicators. IFRS 9 also introduces a 90 days past due rebuttable presumption to serve as a backstop, except for where it can be justified otherwise. Both LBG and Barclays elected to make use of a 180 days past due backstop for UK retail mortgage portfolios, which is aligned to regulatory requirements.</td>
</tr>
<tr>
<td><strong>SICR – approach</strong></td>
<td><strong>Quantitative</strong>&lt;br&gt;Each bank applies a similar SICR approach that includes a combination of a quantitative, qualitative and backstop assessment in line with the recommendations of the GPPC. There are, however, some differences in the application of the quantitative threshold criteria (refer to page 9).&lt;br&gt;&lt;br&gt;<strong>Qualitative</strong>&lt;br&gt;There is the consistent use of internal credit risk management measures as predictive indicators of SICR across the banks. This includes the use of internal “watch list” criteria as a SICR trigger.&lt;br&gt;There is the consistent use of “high-risk” indicators, which includes the 30-day rebuttable backstop (wholesale and commercial exposures) and other delinquency measures such as forbearance support, collateral top-ups and adverse credit bureau results (retail exposures).&lt;br&gt;&lt;br&gt;<strong>Backstop</strong>&lt;br&gt;Consistent use of 30 day backstop across the banks.</td>
</tr>
<tr>
<td><strong>Curing periods</strong></td>
<td><strong>Stage 2 to 1</strong> – i.e. when an exposure no longer meets the criteria for SICR:&lt;br&gt;• Persistence period on retail exposures not in forbearance varies between 3-6 months across the banks.&lt;br&gt;• Performing forborne exposures in stage 2 are subject to a 24-month curing period per EBA exit criteria.&lt;br&gt;&lt;br&gt;<strong>Stage 3 to 2</strong> – i.e. when an exposure no longer meets the definition of credit-impaired:&lt;br&gt;• NPLs are required to make payments under forbearance terms for a minimum period of 12 months before being eligible for transfer to stage 2 (i.e. to be classified as performing under forbearance for a period of 12 months to be eligible to cure).&lt;br&gt;• Variation noted for HSBC’s retail portfolio, which retain Stage 3 classification until maturity or write-off.&lt;br&gt;• San UK’s NPL for mortgages are required to be classified as bankrupt minimum period of 2 years before re-assessment. For Stage 3 – the equivalent period is 7 years.</td>
</tr>
<tr>
<td><strong>Macro-economic variables modelled</strong></td>
<td>Common macro-economic variables observed&lt;br&gt;The following common macro-economic variables were identified across the respective banks’ key economies:&lt;br&gt;1. GDP %&lt;br&gt;2. Unemployment %&lt;br&gt;3. HPI %&lt;br&gt;Barclays does not refer to the use of interest rates in MES modelling, HSBC includes both short-term rates as well as 10-year treasury bond yields whilst SCB refers to short term rates. LBG and San UK broadly include interest rate % without specifying the terms of the rates, whilst RBS includes both BOE and ECB base rates.</td>
</tr>
</tbody>
</table>
# IFRS 9 Impairment Modelling Judgements

## Divergences in approach

### Introduction

There is divergence in the impairment modelling judgements used in the application of certain key requirements of IFRS 9 detailed in the banks' annual reports. This includes IFRS 9 impairment modelling judgements such as the:
- Setting of SICR thresholds;
- Use of IFRS 9 impairment provision overlays/PMAs;
- Response to Brexit uncertainties;
- MES approach and weightings;
- Application of sensitivity analysis; and
- Revolving facility expected lifetime assumptions.

<table>
<thead>
<tr>
<th>Area</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Setting SICR thresholds</strong></td>
<td>The banks are generally applying a combination of relative and absolute PD thresholds, although there are also instances of the application of the internal rating method in specific portfolios. There is greater alignment in the approaches followed for <strong>wholesale</strong> portfolios than those followed for <strong>retail</strong> portfolios.</td>
</tr>
</tbody>
</table>
| **Barclays**        | **Wholesale**  
• Barclays applies a **relative** approach using PD % threshold criteria that varies per risk band and per product type based on residual lifetime PD at the date of initial recognition.  
• Barclays applies a **relative** 100% increase in PD and minimum 0.2% PD uplift.  
**Retail**  
• Barclays applies a **relative** increase and absolute PD thresholds based on product type and origination PD. Thresholds are subject to maximums defined at a Group level and typically apply minimum relative thresholds of 50-100% and maximum relative threshold of 400%. |
| **HSBC**            | **Wholesale**  
• HSBC applies an **absolute** approach – (15 – 30 bps) for lower risk exposures.  
• HSBC applies a **relative** approach – (2x origination PD/100% increase) for higher risk exposures.  
**Retail**  
• HSBC applies a **relative** approach that considers SICR to have taken place where an individual exposure has an adjusted 12-month PD that is greater than the average 12-month PD of loans in its segmented portfolio 12 months before they become 30 days past due. |
| **RBS**             | **Wholesale**  
• RBS applies an **absolute** approach, which consists of a 2xPD movement and subject to minimum 0.1% PD uplift.  
**Retail**  
• RBS consistently applies **relative** thresholds based on 3 risk bands across all personal portfolios.  
• Lower risk exposures need to deteriorate more than higher risk exposures. |
| **LBG**             | **Wholesale**  
• LBG applies an **absolute** approach which consists of a 2xPD. Movement and subject to minimum 0.1% PD uplift.  
**Retail**  
• LBG uses a deterioration in the internal score of retail exposures based in the movement in the number of grades. |
| **SCB**             | **CIB**  
• SCB applies a combination of a **relative** 100% increase and **absolute** – 50-100 bps increase in PD.  
**Private Banking**  
• SCB applies a qualitative assessment using delinquency measures such as collateral top-ups or sell-downs.  
**Retail**  
• SCB applies a combination of a **relative** 100% and **absolute** 100-350 bps increase in PD depending on product and country segment. |
| **San UK**          | **CIB**  
• San UK applies an internal rating method as the only SICR criteria for this portfolio.  
**Corporate & Commercial**  
• San UK applies a combination of a **relative** 100% **absolute** 400 bps increase in PD.  
**Retail**  
• San UK applies a combination of a **relative** 100% **absolute** 30-400 bps increase in PD depending on the product segment within portfolio. |

Source: Bank financial disclosures
### Area

<table>
<thead>
<tr>
<th>IFRS 9 impairment provision overlays/PMAs</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The banks have implemented different IFRS 9 impairment provision overlays/PMAs, although the majority of which relate to uncertainties relating to Brexit. This is discussed in more detail on page 11.</td>
<td></td>
</tr>
</tbody>
</table>

#### Barclays

Barclays included IFRS 9 impairment provision overlays/PMAs for its 3 main business segments:

- Home loans £54m, as a result of noted low provision levels across the MES;
- Credit Cards and other retail lending £370m, to adjust for UK uncertainty as well as LGD and staging criteria updates applied during the year; and
- Corporate loans (£7m), including an adjustment for UK uncertainty offset by a release in the investment bank. These are net adjustments after taking into account any overlays for the uncertainties relating to Brexit, which is discussed on page 11.

#### HSBC

HSBC included PMAs/overlays for additional downside scenarios by recalibrating probability weightings as follows:

- A PMA was included to capture uncertainties relating to Brexit by increasing the probability weighting of the UK’s downside scenario; and
- Additional PMAs were also included to factor in management’s view of global trade and tariff tensions for key Asia-Pacific economies. A Global Trade downside scenario replaced the standard consensus downside scenario with the same 5% weighting assigned for the 8 Asia-Pacific markets to which it relates.

#### RBS

RBS did not include any other IFRS 9 impairment provision overlays/PMAs other than the £101m overlay for the uncertainties relating to Brexit.

#### SCB

SCB did not provide details of IFRS 9 impairment provision overlays/PMAs.

#### LBG

LBG has indicated that IFRS 9 impairment provisions overlays/PMAs have been included, mainly relating to the UK secured lending, although no individual adjustment was material enough to be disclosed separately.

#### San UK

San UK indicated that its most significant IFRS 9 impairment provisions overlays/PMAs were as follows:

- Interest-only maturity default risk £69m, as the model only estimates the likelihood of a customer missing a monthly payment rather than the capital payment;
- Buy-to-let £20m, to avoid underestimating IFRS 9 impairment provisions in an economic downturn as the models have been calibrated over a period of relatively benign economic conditions; and
- Long-term indeterminate arrears £23m, to mitigate the risk of model underestimation for accounts in arrears which have neither repaid or been written-off after a period of 2 years for unsecured and 5 years for secured portfolios.

Source: Bank financial disclosures
<table>
<thead>
<tr>
<th>Area</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brexit uncertainty</td>
<td>The banks have generally responded to uncertainties relating to Brexit through raising additional IFRS 9 impairment provision overlays. The primary mechanism is through adjusting the MES in relation to the UK, although some indicated that an adjustment was not necessary as the uncertainty was already factored into the banks' MES.</td>
</tr>
<tr>
<td>Barclays</td>
<td>Barclays did not adjust the MES but included a total overlay of £150m for the uncertainties relating to Brexit in its two key business segments, namely:</td>
</tr>
<tr>
<td></td>
<td>• £100m overlay in UK Credit Cards portfolio; and</td>
</tr>
<tr>
<td></td>
<td>• £50m overlay in UK Corporate loans portfolio.</td>
</tr>
<tr>
<td>HSBC</td>
<td>HSBC captured the impact of the uncertainties relating to Brexit through the replacement of its UK Standardised Consensus Downside Scenario with 3 alternative downside scenarios. The total overlay increased by $165m to $410m in Q4 2018.</td>
</tr>
<tr>
<td>RBS</td>
<td>RBS raised an additional £101m overlay for the uncertainties relating to Brexit in Q3 2018 by taking into account the prospects of an “alternative path” UK economy. This is characterised as more severe than the BOE's “Disruptive Brexit” scenario (ACS) but less severe than the “Disorderly Brexit” scenario included in RBS’s MES, with a further adjustment based on management's judgement of the likelihood.</td>
</tr>
<tr>
<td>LBG</td>
<td>LBG did not make an adjustment for the uncertainties relating to Brexit as management saw this to be reflected in the UK economic outlook in the forecasted MES. LBG also indicated that the likelihood was adequately incorporated through the choice of MES weighting.</td>
</tr>
<tr>
<td>SCB</td>
<td>SCB did not provide a detailed explanation of how the uncertainties relating to Brexit have been taken into account in IFRS 9 impairment modelling.</td>
</tr>
<tr>
<td>San UK</td>
<td>The range of possible outcomes from uncertainties relating to Brexit have been reflected in the base case and both downside scenarios. These scenarios are aligned to the disruptive stressed scenarios provided by the BOE. Management applied higher weightings to downside scenario 1 and downside scenario 2 in the current year to take this into account.</td>
</tr>
</tbody>
</table>

Source: Bank financial disclosures
The following 3 key areas in relation to the banks’ MES are covered below:

1. **Scenario approach**: The banks’ use of Consensus Economic, Monte Carlo simulation, or combined approaches.
2. **Forecast horizons**: The period of years into the future covered by the banks’ MES; and
3. **Probability weightings**: The structure of the banks’ MES and associated probability weightings as at 31 December 2018.

### Barclays
- **Scenario approach**: Consensus Economic Scenario Approach
- **Forecast horizons**: 8 years (30 June 2018: 5 years)

### HSBC
- **Scenario approach**: Consensus Economic Scenario Approach
- **Forecast horizons**: 3 years

### RBS
- **Scenario approach**:
  - Retail: Representative Economic Scenario Approach
  - Wholesale: Monte Carlo Simulation
- **Forecast horizons**: 5 years

### LBG
- **Scenario approach**: Consensus Economic Scenario Approach
- **Forecast horizon**: 6 years

### SCB
- **Scenario approach**: Monte Carlo Simulation
- **Forecast horizons**: 5 years

### San UK
- **Scenario approach**:
  - Retail, Other Representative
  - CIB Monte Carlo Simulation used to develop the downside and upside scenarios
- **Forecast horizons**:
  - Retail, Corporate; Commercial and Corporate centre: 5 years
  - CIB: 4 years

### Probability Weightings

### Barclays
- **Probability weightings**
  - Upside 2: 9%
  - Upside 1: 24%
  - Baseline: 41%
  - Downside 1: 23%
  - Downside 2: 3%

### HSBC
- **Probability weightings**
  - Upside: 10%
  - Central: 80%
  - Downside: 10%

### RBS
- **Probability weightings**
  - Upside 2: 12.8% (5%)
  - Upside 1: 17% (15%)
  - Base case: 30% (60%)
  - Downside 1: 25.6% (15%)
  - Downside 2: 14.6% (5%)

### LBG
- **Probability weightings**
  - Upside: 30%
  - Base Case: 30%
  - Downside: 30%
  - Severe downside: 10%

### SCB
- **Probability weightings**
  - The final ECL reported by the Group is the simple average of the ECL under each of the 50 scenarios simulated.

### San UK
- **Probability weightings Retail, Other**
  - Upside 2: 5%
  - Upside 1: 15%
  - Base: 40%
  - Downside 1: 30%
  - Downside 2: 10%
  - CIB
    - Upside: 20%
    - Base: 60%
    - Downside: 20%

Source: Bank financial disclosures
The sensitivity analyses performed by the banks can be allocated into 3 categories:

1. **100% weighting of scenarios**
2. **Change in key macroeconomic variables**
3. **Other assessments**

### Barclays
- **1. 100% weighting of scenarios**
  - The change in GCV and ECL across stages and key business segments assuming 100% weighting for each scenario.
- **2. Change in key macroeconomic variables**
  - Showing the change in GCV and ECL across stages and key business segments assuming the use of upside/downside variables instead of baseline variables for both US and UK.
- **3. Other assessments**
  - The increase in ECL from a 1% migration of Stage 3 exposures into stage 2.

### HSBC
- **1. 100% weighting of scenarios**
  - The change in coverage ratios for each of the key jurisdictions across Wholesale and Retail portfolios assuming a 100% weighting for each scenario.

### RBS
- **1. 100% weighting of scenarios**
  - The impact on ECL assuming 100% weighting for the worst Downside scenario for key principal portfolios.
- **2. Change in key macroeconomic variables**
  - The impact on ECL assuming a 5% decrease in UK & ROI HPI and a 100% probability weighting to the central base case.
- **3. Other assessments**
  - a. The impact on ECL with the simulated impact of PDs moving upwards to the TTC average from their current PIT estimate.
  - b. The impact on ECL assuming a relative 25% upward shift in PDs for key principal portfolios.

### LBG
- **1. 100% weighting of scenarios**
  - The impact on ECL with 100% weighting of Base Case scenarios for key principal portfolios and total ECL for Upside/Downside scenarios.
- **2. Change in key macroeconomic variables**
  - a. The impact on ECL from a 10% increase/decrease in UK HPI.
  - b. The impact on ECL from a 1% increase/decrease in UK unemployment rate.

### SCB
- The bank stated that no individual macroeconomic variables had a materially influential (i.e. >1% impact) to Group ECL and, therefore, no specific sensitivity analysis was performed.
- **1. Other assessments**
  - A scenario was applied to GCV and ECL that assumed that extended global trade tensions would continue and result in a China slowdown and spill over to emerging markets. Total ECL impact and change in staging.

### San UK
- **1. 100% weighting of scenarios**
  - The impact on ECL across stages and key business segments assuming 100% weighting for each scenario.
- **2. Change in key macroeconomic variables**
  - The impact on ECL assuming a 20%/10%/-10% and -20% change in UK HPI.

Source: Bank financial disclosures
**Area**

<table>
<thead>
<tr>
<th>Revolving facility expected lifetime assumptions</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The banks have introduced differing assumptions for calculating the expected lifetimes for revolving facilities. For term facilities the banks limit behavioural life to the maximum contractual life as required by IFRS 9. The banks’ approaches to expected lifetime for revolving facilities are summarised below.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barclays</th>
<th>The expected lifetime is analytically derived to reflect the behavioural life of the asset. Specifically, the expected life of credit card portfolios is modelled over 10 years.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSBC</td>
<td>The expected life is the period that HSBC is exposed to credit risk that is not mitigated by credit risk management actions.</td>
</tr>
<tr>
<td></td>
<td>HSBC uses the following assumptions for its key revolving portfolios:</td>
</tr>
<tr>
<td></td>
<td>a. For credit card portfolios and retail overdraft facilities, an expected life of 2 to 6 years is used as the expected life.</td>
</tr>
<tr>
<td></td>
<td>b. For wholesale overdraft facilities the date of the next expected credit review is used as the expected life. These are conducted no less frequently than on an annual basis.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RBS</th>
<th>RBS uses the following assumptions for its key revolving portfolios:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. For personal portfolios (except credit cards) the behavioural life is used.</td>
</tr>
<tr>
<td></td>
<td>b. For credit card portfolios an expected life of 36 months is used. RBS noted that uncapping this would increase IFRS 9 impairment provisions by £90m.</td>
</tr>
<tr>
<td></td>
<td>c. For wholesale overdraft facilities the date of the next expected credit review is used as the expected life.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LBG</th>
<th>LBG uses the following assumptions for its key revolving portfolios:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. For retail revolving products the losses beyond the contractual term over which LBG is exposed to credit risk is used as the expected life.</td>
</tr>
<tr>
<td></td>
<td>b. For wholesale overdraft facilities the average behavioural life is used as the expected life.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCB</th>
<th>SCB uses the following assumptions for its key revolving portfolios:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. For credit card portfolios an average life of between 3 and 10 years is used as the expected life.</td>
</tr>
<tr>
<td></td>
<td>a. For wholesale overdraft facilities an average life of 22 months is used as the expected life.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>San UK</th>
<th>The behavioural life is used as the expected life. In certain cases a shorter period is used to simplify the calculation.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If this is done then an IFRS 9 impairment provision overlays/PMA is applied to reflect the view of the full lifetime.</td>
</tr>
</tbody>
</table>

Source: Bank financial disclosures
In this appendix there is further analysis on the banks’ total L&AC, as this was the banks’ balance sheet line item against which the largest proportion of IFRS 9 impairment provisions are held. This has been performed at both a total bank and portfolio level. For the portfolio level analysis we segmented the bank’s portfolios into total Wholesale, total Retail, Retail: Mortgages and Retail: OPL. At a total bank level we looked at the changes in the balance sheet GCV and the related IFRS 9 impairment provisions during the 2018 financial year. At a portfolio level we looked at the staging proportions of GCV and IFRS 9 impairment provisions at the end of the 2018 financial year and compared coverage ratios, calculated as GCV divided by IFRS 9 impairment provisions, across the banks. An assumption has been made to allocate corporate centre related balances to the bank’s Wholesale portfolio where applicable.
After the first year of IFRS 9 | Analysis of the initial impact on the large UK banks

Total L&AC benchmarking
2018 reporting period

Change in total L&AC GCVs during 2018 financial year
The banks generally saw increases in L&AC GCVs during the 2018 financial year across both Retail and Wholesale portfolios.

The exception was RBS, which experienced a (1.1%) decrease in L&AC GCV driven by reduced lending to Wholesale customers of (£11bn).

The other banks saw total increases in L&AC GCV of between 0.8% – 5.1%. Notably LBG increased lending to Wholesale customers by £27bn and HSBC $15bn to Retail: Mortgages customers.

Appendix 1
% change in L&AC GCV during FY2018

Source: Bank financial disclosures, Deloitte analysis

Appendix 2
L&AC GCV Retail vs. Wholesale split – 31/12/2018 (outside) vs 31/12/2017 (inside)

Source: Bank financial disclosures, Deloitte analysis

Appendix 3
% change in L&AC IFRS 9 impairment provisions during FY2018

Source: Bank financial disclosures, Deloitte analysis

Appendix 4
L&AC IFRS 9 impairment provisions Retail vs. Wholesale split – 31/12/2018 (outside) vs 31/12/2017 (inside)

Source: Bank financial disclosures, Deloitte analysis
Total L&AC benchmarking

Wholesale

**Total Wholesale L&AC GCV staging proportions**
The vast majority of total Wholesale L&AC GCVs were in Stages 1 and 2, as at 31 December 2018. These exposures contributed between 96% – 99.1% of the banks’ total.

The level of Stage 2 exposures varied between 4.5% – 10.9%.

Stage 3 and POCI exposure meanwhile was limited to between 1.5% – 4% across the banks. Specifically, 0.1% of HSBC exposures were POCI.

**Total Wholesale L&AC IFRS 9 impairment provision staging proportions**
The majority of IFRS 9 impairment provisions were held against Stage 1 and 2 exposures as at 31 December 2018. However, the proportions did vary between the banks at this date, as IFRS 9 impairment provisions held against Stage 3 and POCI exposures ranged from 56% and 90%. Notably Barclays and San UK had the highest proportion of IFRS 9 impairment provisions against Stage 1 and 2 exposures of over 40%. This was driven by the relatively higher contribution of IFRS 9 impairment provisions for Stage 2 exposures of over 30%, whilst the others varied between 7% and 22%.

**Appendix 5**

<table>
<thead>
<tr>
<th>L&amp;AC GCV staging proportions – 31/12/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
</tr>
<tr>
<td>Barclays</td>
</tr>
<tr>
<td>HSBC</td>
</tr>
<tr>
<td>RBS</td>
</tr>
<tr>
<td>LBG</td>
</tr>
<tr>
<td>SCB</td>
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<tr>
<td>San UK</td>
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</table>

Source: Bank financial disclosures, Deloitte analysis

**Appendix 6**

<table>
<thead>
<tr>
<th>L&amp;AC IFRS 9 impairment provision staging proportions – 31/12/2018</th>
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<tbody>
<tr>
<td>Stage 1</td>
</tr>
<tr>
<td>Barclays</td>
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<tr>
<td>HSBC</td>
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<td>RBS</td>
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<td>LBG</td>
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<tr>
<td>SCB</td>
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<td>San UK</td>
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Source: Bank financial disclosures, Deloitte analysis

**Total Wholesale L&AC coverage stage**
There were no major outliers in terms of coverage for Stage 1 exposures with all banks within a range of between 0.05% – 0.14%.

LBG had the highest coverage for Stage 2 exposures of 5% whilst the other banks varied between 1.8% and 3.1%.

Barclays and San UK had the lowest coverage for Stage 3 exposures of 22% and 25.9% respectively whilst the other banks varied between 31.9% – 60.8%.

HSBC had coverage of 59.9% for POCI exposures (not shown in graph).

**Appendix 7**

<table>
<thead>
<tr>
<th>L&amp;AC coverage per stage – 31/12/2018</th>
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</thead>
<tbody>
<tr>
<td>Stage 1</td>
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<tr>
<td>Barclays</td>
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<td>SCB</td>
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<tr>
<td>San UK</td>
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</tbody>
</table>

Source: Bank financial disclosures, Deloitte analysis
Total L&AC benchmarking

Retail

Total Retail L&AC GCV staging proportions
The vast majority of total Retail L&AC GCVs were in Stages 1 and 2, as at 31 December 2018. These exposures contributed between 94.8% – 99.1% of the banks’ total.

The level of Stage 2 exposures varied between 3.1% – 14.9%.

In total Stage 3 and POCI exposures were limited to between 0.9% – 5.2%, and specifically 4.5% of LBG’s exposures were POCI.

Total Retail L&AC IFRS 9 impairment provision staging proportions
The proportionate contribution of IFRS 9 impairment provisions against L&AC varied between the banks. For RBS and SCB the greatest contribution was from Stage 3 exposures, whilst for the other banks the combination of Stage 1 and 2 exposures made the greatest contribution. Notably HSBC and LBG had the greatest proportion of IFRS 9 impairment provisions against Stage 1 and 2 exposures of over 60%. This was driven by the relatively lower contribution of IFRS 9 impairment provisions for Stage 3 exposures of less than 39%, whilst the others varied between 40% – 64%.

Appendix 9
L&AC IFRS 9 impairment provision staging proportions – 31/12/2018

Total Retail L&AC coverage per stage
There were no major outliers in terms of coverage for Stage 1 exposures with all banks within a range of between 0.05% – 0.32%.

HSBC and Barclays had the highest coverage for Stage 2 exposures of 8.4% and 7.9% respectively, whilst the other banks varied between 2.5% and 3.6%.

San UK had the lowest coverage for Stage 3 exposures of 10.7% whilst the other banks varied between 20.3% – 47.7%.

LBG had coverage of 0.51% for POCI exposures (not shown in graph).

Appendix 10
L&AC coverage per stage – 31/12/2018

Source: Bank financial disclosures, Deloitte analysis
Total L&AC benchmarking
Retail: Mortgages

Retail: Mortgages L&AC GCV staging proportions
The vast majority of Retail: Mortgages L&AC GCV's were in Stages 1 and 2, as at 31 December 2018. These exposures contributed between 94.1% – 99.6% of the banks’ total.

The level of Stage 2 exposures varied between 2.1% – 12.1%.

In total Stage 3 and POCI exposures were limited to between 0.5% – 5.8%, and specifically 5.3% of LBG’s exposures were POCI.

Retail: Mortgages L&AC IFRS 9 impairment provision staging proportions
The proportionate contribution of IFRS 9 impairment provisions against L&AC for exposures at different stages varied between the banks. For LBG and San UK the greatest contribution was from Stage 1 and 2, with 57% and 55% contribution respectively, whilst the contribution for the other banks ranged between 16% – 24%. This was driven by the relatively larger contribution of Stage 2 IFRS 9 impairment provisions of 49% and 51% respectively, whilst the other banks ranged between 8% – 18%.

Appendix 11
L&AC GCV staging proportions – 31/12/2018

Source: Bank financial disclosures, Deloitte analysis

Appendix 12
L&AC IFRS 9 impairment provision staging proportions – 31/12/2018

Source: Bank financial disclosures, Deloitte analysis

Retail: Mortgages L&AC coverage per stage
There were no major outliers in terms of coverage for Stage 1 exposures with all banks within a range of between 0.01% – 0.02%.

There were no major outliers in terms of coverage for Stage 2 exposures with all banks within a range of between 0.5% and 1.7%.

San UK and LBG had the lowest coverage for Stage 3 exposures of 5.3% and 8.5% respectively whilst the other banks varied between 14.2 – 28.6%.

LBG had coverage of 0.51% for POCI exposures (not shown in graph).

Appendix 13
L&AC coverage per stage – 31/12/2018

Source: Bank financial disclosures, Deloitte analysis
Total L&AC benchmarking
Retail: OPL

**Retail: OPL L&AC GCV staging proportions**
The vast majority of Retail: OPL L&AC GCV's were in Stages 1 and 2, as at 31 December 2018. These exposures contributed between 93.9% – 98.9% of the banks’ total.

The level of Stage 2 exposures varied between 4.2% – 24%.

In total Stage 3 and POCI exposures were limited to between 1.1% – 6.1%.

**Retail: OPL L&AC IFRS 9 impairment provision staging proportions**
The majority of L&AC IFRS 9 impairment provisions were held against Stage 1 and 2 exposures as at 31 December 2018. The proportions did vary slightly between the banks at this date as IFRS 9 impairment provisions held against Stage 1 and 2 exposures ranged between 49% and 70%. This was driven primarily by Stage 2 exposures, although notably 36% and 30% of total IFRS 9 impairment provisions for SCB and LBG were contributed by Stage 1 exposures, compared to between 10% – 22% for the other banks.

**Retail: OPL L&AC coverage per stage**
There were no major outliers in terms of coverage for Stage 1 exposures with all banks within a range of between 0.54% – 1.15%.

There were no major outliers in terms of coverage for Stage 2 exposures with all banks within a range of between 7.4% – 18.8%.

LBG and HSBC had the lowest coverage for Stage 3 exposures of 36.7% and 43.7% respectively whilst the other banks varied between 55% – 87.1%.

LBG had a coverage of 0.51% for POCI exposures (not shown in graph).
References

The banks’ 2018 Annual Reports, 2018 Pillar 3 Reports (or equivalent), issued in February and March 2019, and Transition to IFRS 9 Reports (or equivalent), issued in February and March 2018, were the primary sources of the quantitative and qualitative data used in our analysis.

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<tr>
<th>Bank</th>
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<td></td>
<td>San UK 2018 Additional Capital and Risk Management Disclosures</td>
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Notes