EY insights on 2020 expected credit losses

A benchmark across European banks

June 2021

Building a better working world

Contents

Introduction

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In early 2021, EY organization performed a review of the 2020 IFRS 9 expected credit loss (ECL) disclosures published by 18 banking institutions headquartered in Europe.

The purpose of this analysis was to provide a broad view of how the data gathered compare across banks, to present our observations on the comparisons and to test different ideas to analyze the data and identify possible drivers of the trends.

Our focus was:

- The magnitude of the impact in 2020 (the P/L impact and cost of risk ratios)
- How the impact has been assessed, with a particular focus on forward-looking assumptions and overlays
- The underlying ECL drivers (focusing on risk assessment and stage movements)
- How approaches on staging, scenarios, models and overlays could be compared

Our analysis is based on information collected from the IFRS financial statements, earnings presentations and Pillar 3 regulatory disclosures. A noted limitation is the significant diversity in terms of content, format and granularity; accordingly, comparisons between banks were often challenging. Where this has led to assumptions, we have referred to these.

A similar analysis was performed by EY each quarter throughout the year 2020. The insight from the quarter-on-quarter trends has been incorporated in this analysis.

This document also compares the information disclosed in the banks' financial statements, particularly on how banks explained the impact of COVID-19 in their ECL amounts.

The analysis was presented on an EY IFRS webcast for clients on 25 March 2021, "IFRS 9 ECL, a benchmark of 2020 disclosures and impacts."

A replay of the webcast is available here.

For the quarterly analysis that we performed in 2020, refer to the details below:

IFRS 9 observations on Q1 impacts and attention points for half-year reports

IFRS 9: an analysis of Q2 impacts and expectations ahead

IFRS 9 focus areas for year-end 2020

Analysis of the full-year 2020 IFRS 9 ECL impacts: the sample population

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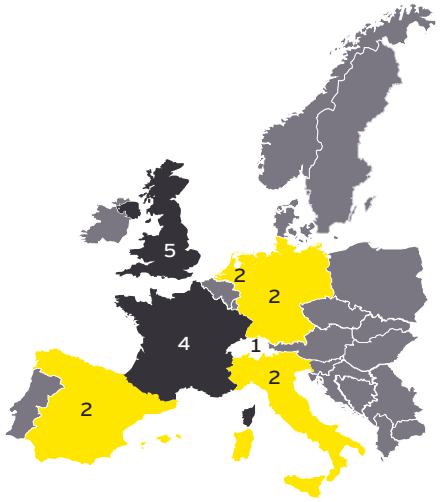
The analysis was performed on banking institutions in France, Germany, Italy, the Netherlands, Spain, Switzerland and the United Kingdom. These banks are either classified as a global systemically important institution (G-SII) if headquartered in the European Union, or else classified as a global systemically important bank (G-SIB) if headquartered elsewhere.

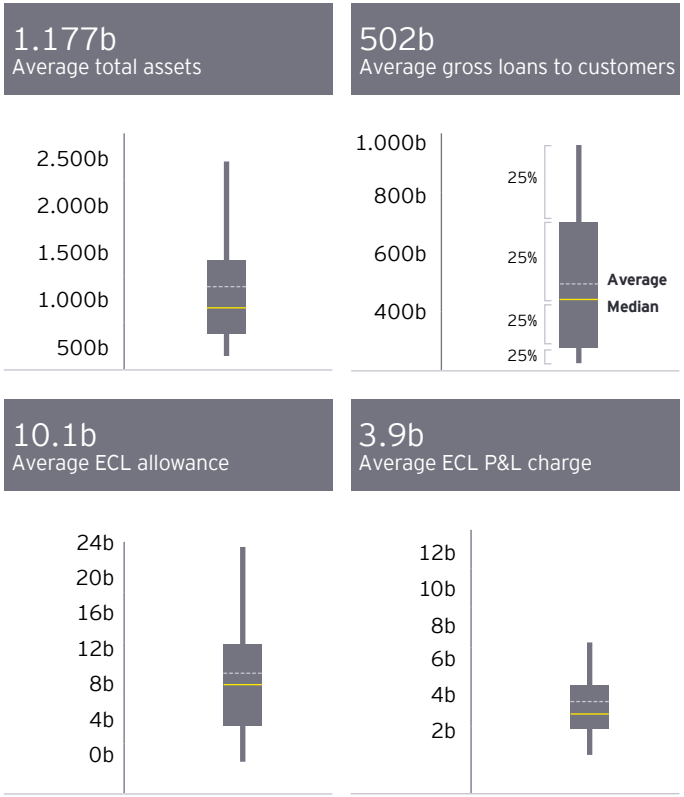
However, it is important to bear in mind that there are significant differences in total balance sheet size for the sample population, as well as different business mixes in terms of corporate, SME, mortgages and retail unsecured exposures. These are key considerations for both the profit and loss (P/L) impact and the size of the impairment allowances.

For the sample, the average size of "Gross loans to customers at amortized cost" is €502b, with four banks having in excess of €800b and four banks having below €300b.[1] The EY analysis within this publication focuses on these exposures as the primary scope.

Figure 1 shows the geographical location of banks included in the sample.

Figure 1: Geographical location of banks included in sample





1 All currency conversions to Euro (€) performed as at the exchange rate on 31 December 2020.

ECL expense recorded for 2020

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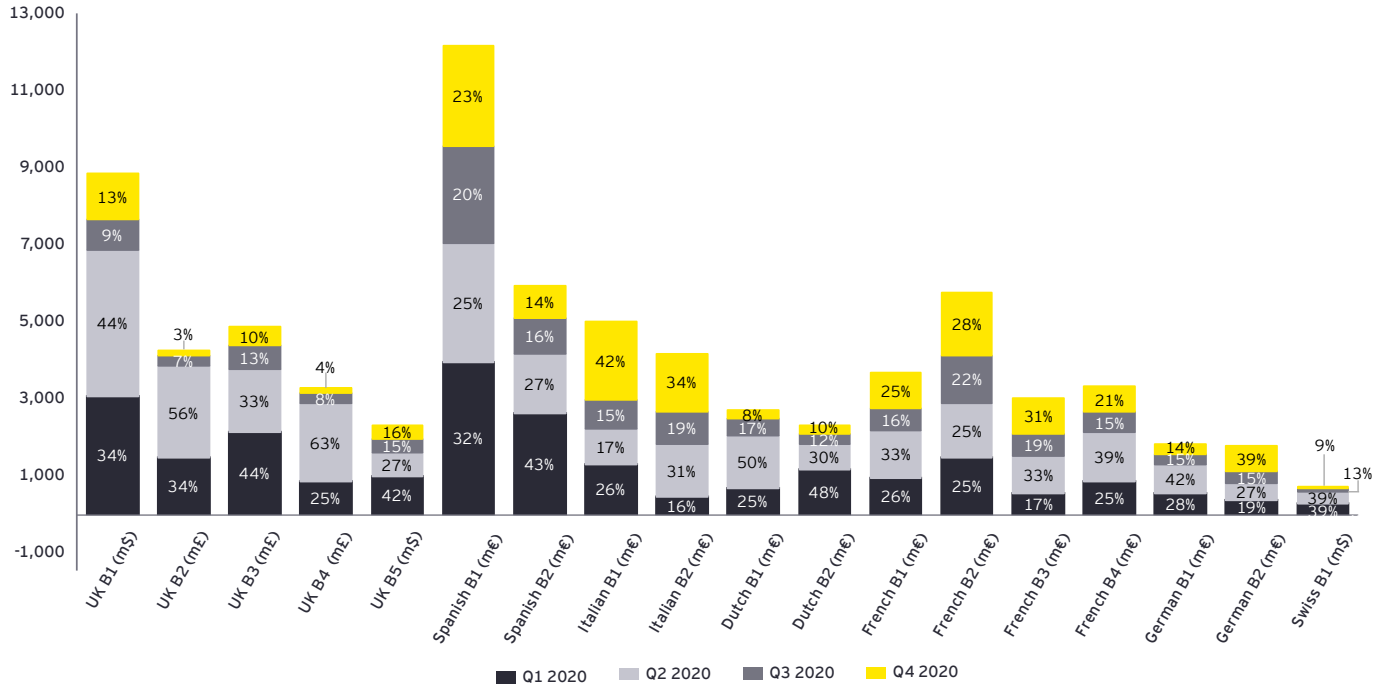
Figure 2: ECL expense for 2020 (€m)



3.1 The overall ECL expense

The average ECL charge incurred by the banks in 2020 was €3.9b, up from the 2019 average of €2.0b.

All banks emphasized the magnitude of the COVID-19 effect in their communications.

As shown in *Figure 2*, the quarter-on-quarter pattern of recognition of ECL expense varied across the banks, with some country trends. For some banks, the ECL charge in the first half represented as high as 80% or 90% of the full-year charge (e.g., those in the UK); whereas for others, the expense was more evenly spread or even higher in the second half (e.g., banks in Italy).

In Q1 2020, given the recent pandemic outbreak and lockdown measures, the effect of COVID 19 was assessed using "top-up" approaches, compared with the normal "business-as-usual" processes. Significant judgment was involved, and banks' ECL estimates varied significantly. For some banks, the overall effect of COVID was not the largest driver of loss due to significant Stage 3 losses reported on single-name defaults in the first half, attributed to large clients in the Americas and in Asia.

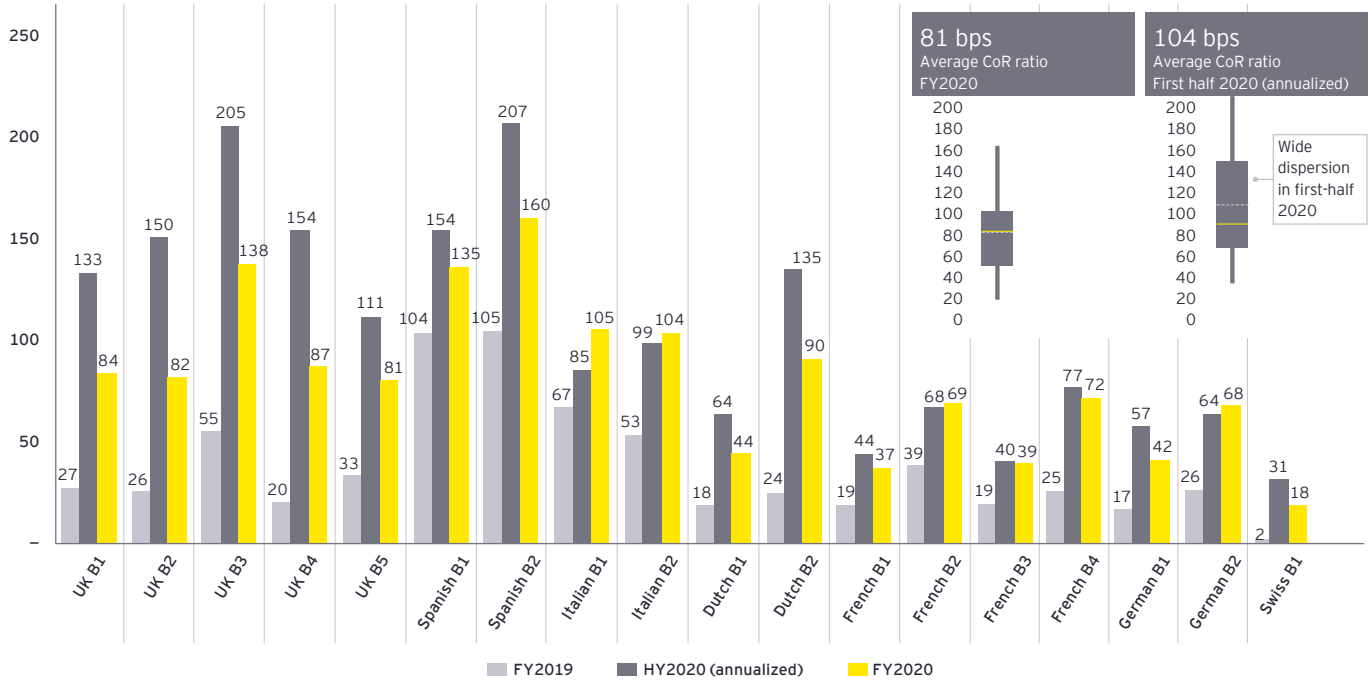
ECL expense recorded for 2020 (continued)

Throughout the year, the approaches were refined and the dispersion of ECL estimates decreased, but significant model adjustments and overlays still had to be used at the year-end to reflect the unprecedented circumstances (see section 3.4).

The differences in the charges recorded in the second half of the year were mostly attributable to Q4, when there was considerable dispersion. Six banks booked a limited ECL expense, representing 10% or less of their full-year ECL charge, whereas five banks still booked a significant charge in Q4 (close or above 30% of their full-year charge). This second group of banks generally referred to the deterioration of the environment at the end of Q4 with new lockdowns and the perspective of second and third waves. These conditions were harder than expected at the end of Q3.

Overall, there were very few ECL releases over the second half, with only four banks in the sample having booked some releases in Q3 and Q4. Banks either used overlays to freeze modeled releases or used other forms of model adjustments aimed at avoiding volatility. This contrasts with the situation of the four biggest banks in the US, which reflected a more volatile pattern of ECL charge over the quarters under the full lifetime ECL model (95% of the 2020 ECL P/L charge was booked in the first half of 2020 and three banks showed a release in Q4 due to macroeconomic improvements).

Figure 3: Cost-of-risk ratio (bps)



NB. Recalculated ratios which may differ from disclosed CoR

3.2 The cost-of-risk (CoR) ratio

The CoR (calculated as the ratio between the ECL charge and the gross loans to customers) doubled in 2020 compared with 2019, with half of the banks concentrated between a ratio of 40 bps and 100 bps (see *Figure 5*).

As reflected in *Figure 3* and *Figure 5*, there were some significant differences between banks and countries.

The various drivers for these differences include:

- Products, customers and business mix:
  - Products more sensitive to the economic environment (e.g., corporate and commercial loans), credit cards and other forms of personal unsecured lending
  - Exposure to vulnerable sectors
  - Significant single-name Stage 3 losses in 2020 compared to 2019
- Geographical footprint: some countries structurally have higher loss rates. Banks with exposures in South America and the US were more heavily impacted by the pandemic
- Government support measures
- Macroeconomic projections and assigned weights
- The impact of overlays

Overall, the increase in CoR is relatively balanced between wholesale and retail portfolios (with retail catching up in the second half). But corporate and retail unsecured portfolios attracted the majority of the increase.

ECL expense recorded for 2020 (continued)

Forward-looking assumptions and overlays represented the strongest drivers as the increase in the CoR was driven by the additional provisions on performing loans, i.e., Stage 1 and Stage 2 allowances.

3.2.1 Various patterns of increase across quarters

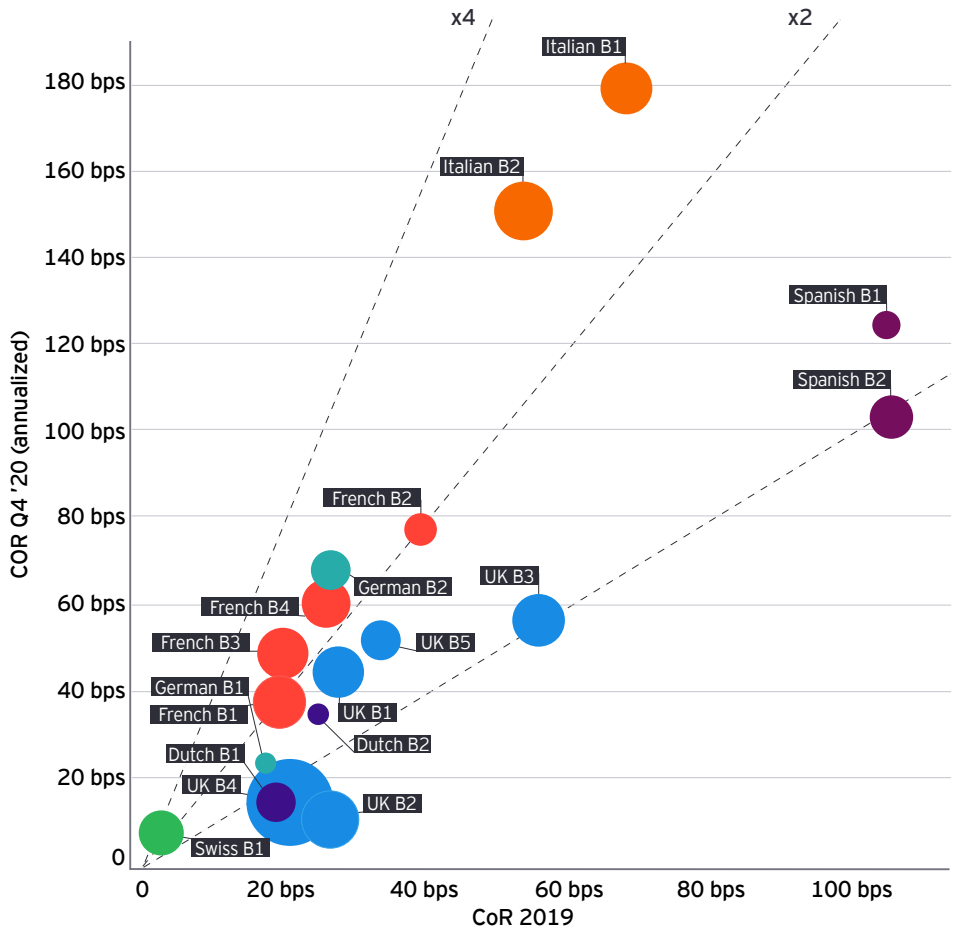
The spikes observable at half-year in *Figure 3* (in dark grey) reflect that more than half of the banks booked most of the increase in CoR in the first half of the year. For these banks, the decrease reflected at year-end (in yellow) does not reflect releases of ECL allowance in the second half, but rather fewer additions to the ECL allowance compared with the first half. In contrast, the banks showing a stable CoR between half-year (annualized) and year-end have booked a similar level of provisions throughout the year.

If we focus on Q4 (annualized), as shown in *Figure 4*, we can see that some banks had a very low CoR (lower than for the full year 2019), which reflects that these banks booked the most significant provisions in the first half of 2020. Other banks, in contrast, exhibited a higher ratio when compared to 2019 (e.g., France reported twice as much CoR as in 2019 and Italy triple the value of CoR from 2019).

These differences in paths throughout the year reveal different situations, different assumptions taken by the banks as well as different levels of model responsiveness and the use of judgmental overlays. These assumptions and overlays were applied to measure the effects of an unprecedented crisis, characterized by a sudden drop in quarterly growth rates as well as a massive level of support measures. Overall, the following need to be considered:

- The timing and the magnitude of the lockdown measures differed from country to country, with some experiencing stricter measures than others
- Various levels of optimism at half-year, with some banks exhibiting a brighter outlook for the following periods
- Different overall approaches to forecast and incorporate forward-looking information into the models, as well as different approaches to overlays
- Banks' own interpretation of guidance issued by several regulators in March 2020, recommending banks to take into account the temporary nature of the shock

Figure 4: CoR ratios – Q4 2020 (annualized) compared with full-year 2019 (in bps)



NB. Recalculated ratios which may differ from disclosed CoR
Bubble size reflects Stage 1 + Stage 2 proportion of 2020 P/L charge

ECL expense recorded for 2020 (continued)

3.2.2 Country trends

At year-end, most banks were concentrated between a ratio of 40 bps and 100 bps. The dispersion reduced compared with half-year when banks were spread between 30 bp and 207 bp.

Figure 5 shows some interesting country trends regarding the level of increase in CoR. Some trends remain consistent between 2019 and 2020:

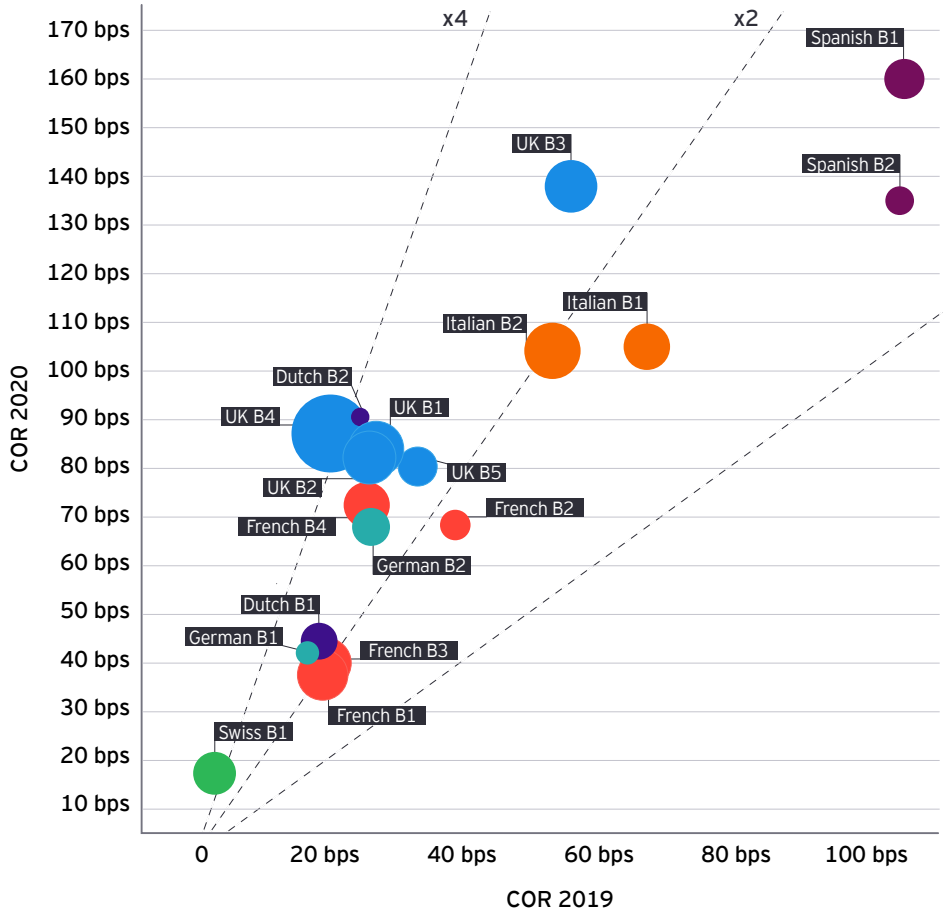
- Banks in Spain and Italy stayed within the higher end of the CoR range
- The Swiss bank remained at the bottom of the range (driven by significant collateralized exposures)

For the rest of the countries, the COVID-19 crisis has increased the dispersion between countries and sometimes between banks:

- UK banks experienced a more significant increase compared with other European banks (CoR has tripled) but most of them converge towards an average of 83 bp at year-end
- French, German and Dutch banks are more dispersed (between 35 bps and 90 bps), partly driven by some significant Stage 3 losses at some banks in Q1 and Q3. And the average increase is lower, around two times

In comparison, the CoRs of the four biggest US banks tripled on average (178 bps on average), after a significant spike at half-year (when the annualized CoR was a multiple of five).

Figure 5: CoR ratios (full-year 2020 vs. full-year 2019)



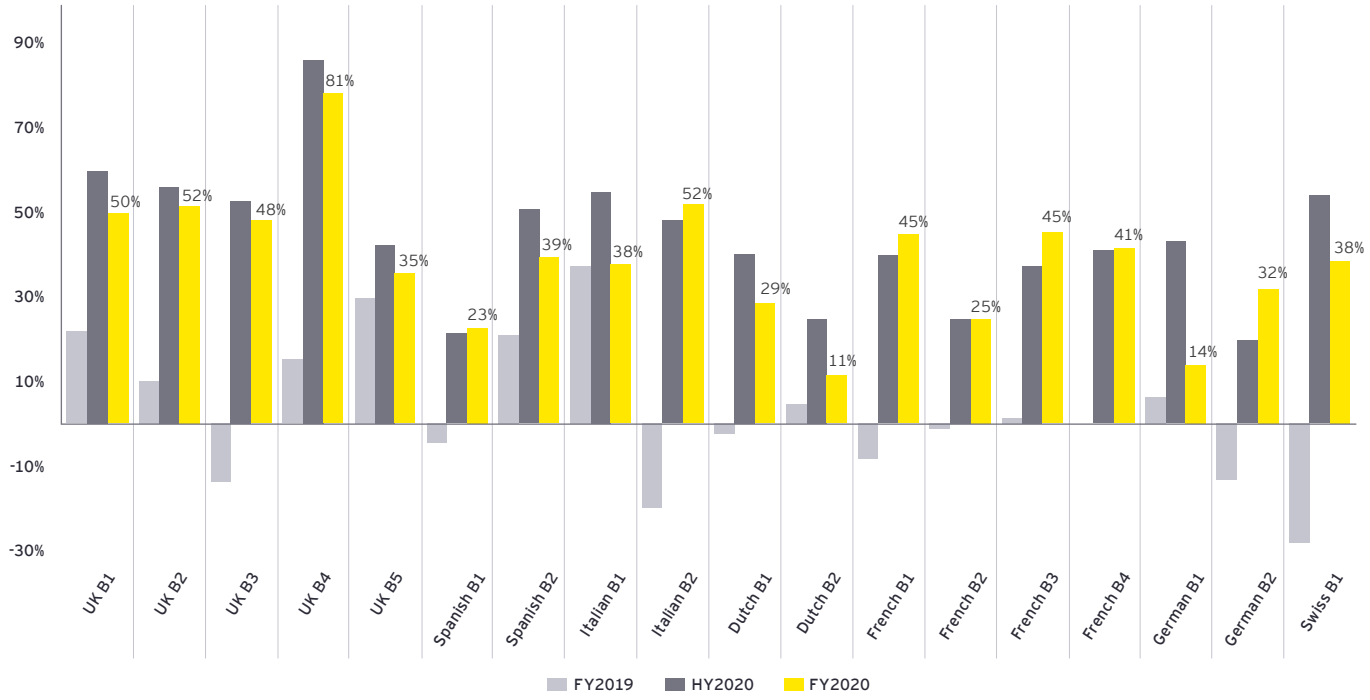
NB. Recalculated ratios which may differ from disclosed CoR
Bubble size reflects Stage 1 + Stage 2 proportion of 2020 P/L charge

3.3 An increase in ECL driven by Stage 1 and Stage 2 provisioning

As noted in *Figure 6*, Stage 1 and Stage 2 provisioning represented 43% of the 2020 ECL P/L charge for 2020, compared with only 10% in 2019.

The increase in Stage 1 and Stage 2 provisions was driven by forward-looking assumptions, i.e., the revision of the macroeconomic scenarios, in particular, the baseline scenario (see section 7 on page 20).

Figure 6: Stage 1 and Stage 2 proportion of total ECL P/L charge (in %)



In Q1, banks generally used overlays, as no revised scenario was publicly available in time for the Q1 closing (in particular from regulators) and uncertainty was extreme. Banks used revised scenarios in Q2, which generally resulted in further increases in Stage 1 and 2 provisioning. There were limited updates required in Q3, as the banks in this quarter experienced better than expected performance, but more uncertainties arose at the same time.

As mentioned in section 3.2.1, Q4 was mixed and resulted for some banks in further deterioration of the assumptions due to the new imposed national measures, the threat of second and third COVID-19 waves and longer vaccination periods. This resulted in three main trends in Q4:

1. French and Italian banks, together with one German bank, substantially increased their Stage 1 + Stage 2 ECL allowances (40% of the increase for the full year)
2. A few banks released Stage 1 and Stage 2 ECL allowances due to scenario improvements (between 20% and 50% of the increase accumulated in prior quarters)
3. The rest of the banks exhibited little movement, with modeled releases neutralized by overlays.

Generally, the banks showing the lowest proportions of Stage 1 and Stage 2 ECL expense at year-end either experienced significant single-name Stage 3 losses during the year, or they have already released a portion of their Stage 1 and 2 allowance in Q3 or Q4.

3.4 The use of management overlays

A significant component of the Stage 1 and 2 increased provisioning resides in overlays. They proved to be important factors as early as Q1 and evolved in nature over the quarters.

Some significant overlays booked in Q1 were subsequently "recycled" in the revision of macroeconomic scenarios. But overlays evolved into a mix of post-model adjustments and uncertainty overlays and remained substantial.

As there is no taxonomy available for overlays, diversity exists with regards to what banks assign against this term. However, based on what 11 banks described as overlays at year-end, we observed (*Figure 7*) that the CoR attributable to overlays represented more than 85% on average of the CoR attributable to Stage 1 and Stage 2 (the lowest level being around 20%).

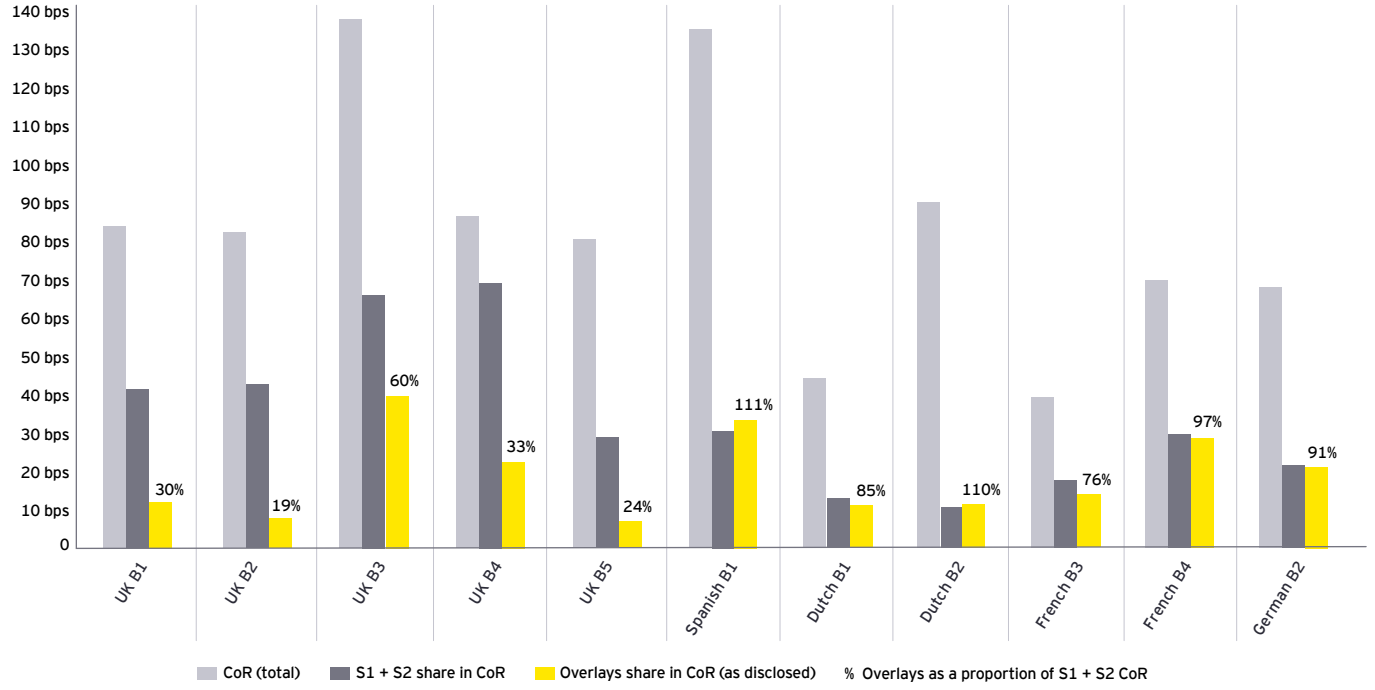
Overlays resulted in a net increase in the ECL balance, but with significant offsetting effects between negative post-model adjustments and positive uncertainty overlays. Significant additional overlays were booked at year-end to avoid model releases and to take into account lag effects in expected defaults as well as significant uncertainties.

There were three main reasons for overlays:

1. Models were operating outside the boundaries of data used to calibrate them. Several banks referred to models providing unrealistically high default rates (most often for wholesale and low-risk counterparties). As such, banks booked very significant adjustments in order to model better the losses expected in this crisis, including the effect of government support programs.
2. The historical correlation between GDP and other key economic variables and future losses was built without considering the effect of governmental support measures. In practice, this was adjusted by averaging inputs or correcting the outputs.
3. Sector idiosyncrasies were amplified by the crisis and adjustments were applied in order to have an appropriate differentiation in the severity of projected default rate conditions for different industry sectors.

It is not yet clear how or when these overlays will be released, but generally, banks confirmed that the releases would be limited before the support measures have come to an end.

Figure 7: Impact of overlays on 2020 CoR



ECL expense recorded for 2020 (continued)

3.5 What is the CoR outlook for 2021?

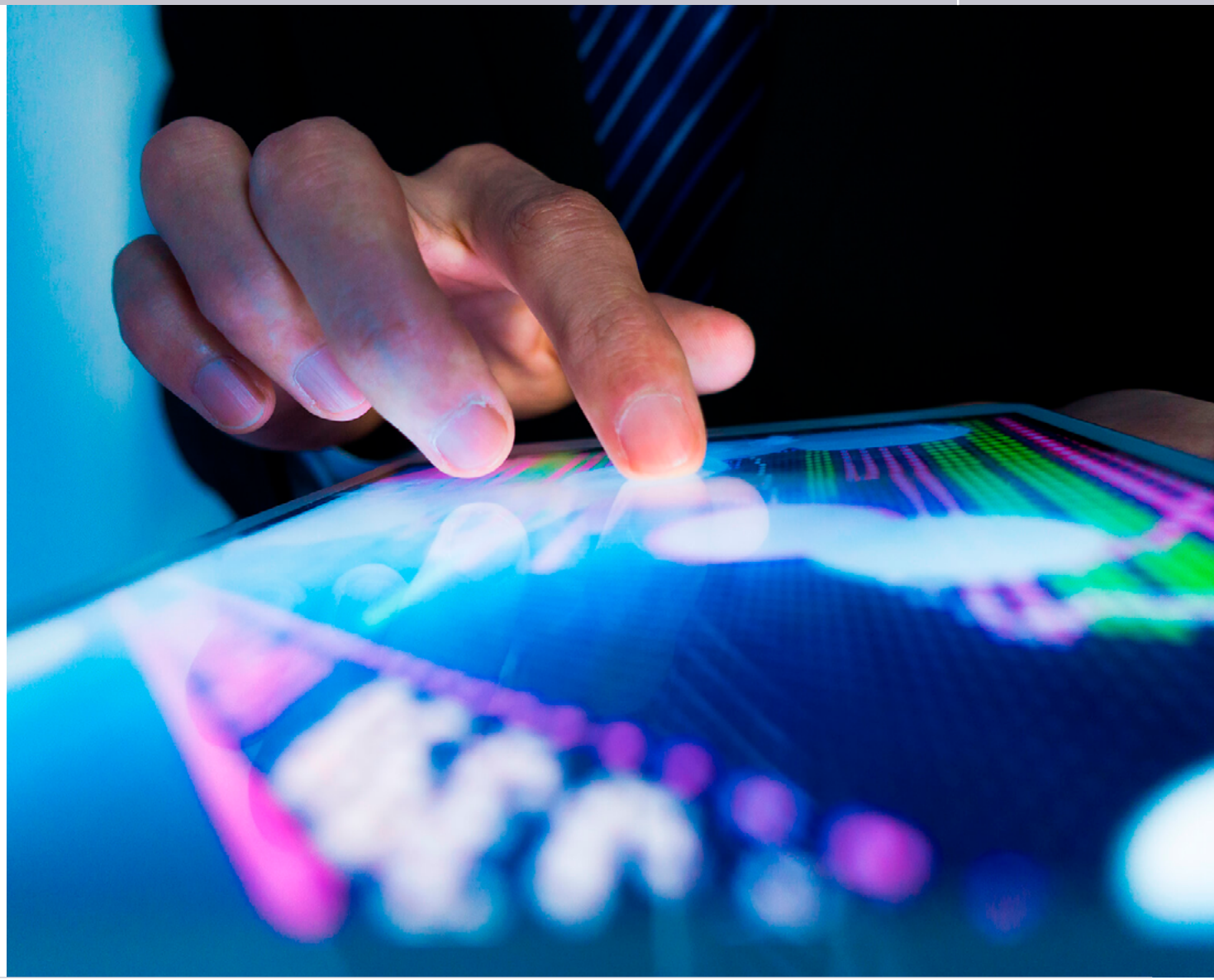
All banks have projected a 2021 CoR outlook below that for 2020, with all of them stressing the high level of uncertainty.

The different trends observed in the 2021 CoR guidance published by banks were:

- A normalization of the ECL charge and a return closer to pre-pandemic levels
- A return to 'through-the-cycle' levels of CoR
- A level of impairment charge in 2021 materially below that of 2020

or

- A level of impairment charge below 2020 but still elevated



Performing exposures: coverage ratio and Stage 2 loan proportion

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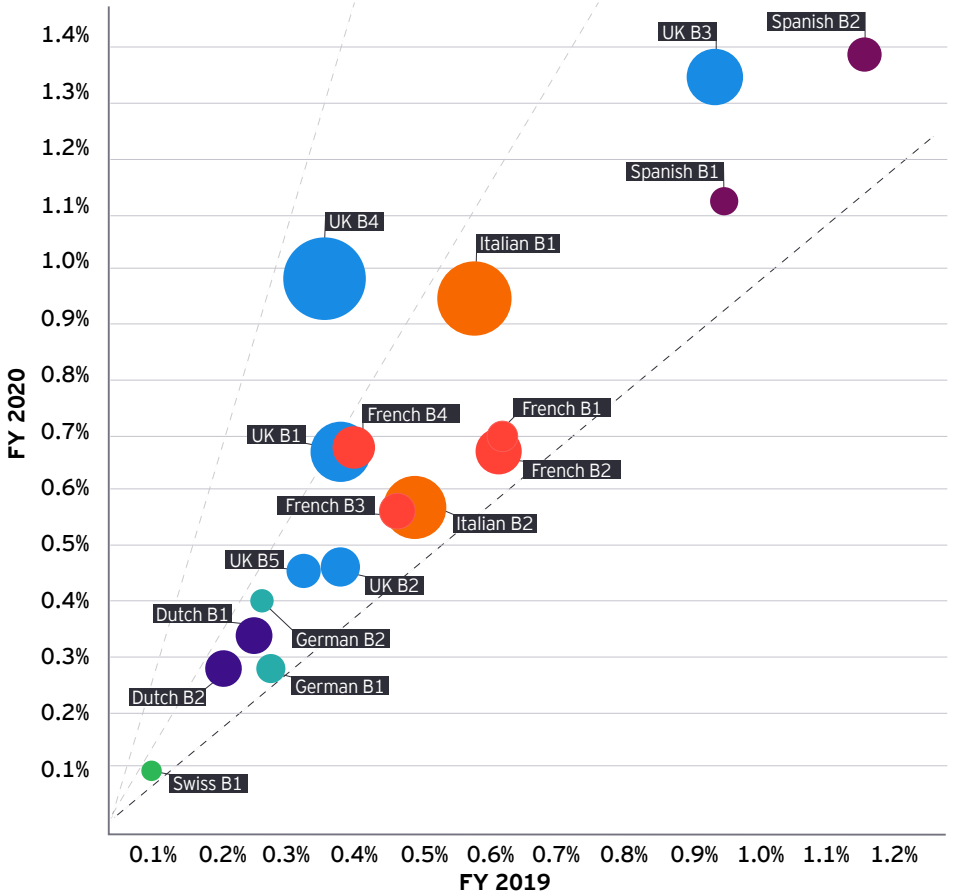
Figure 8: Stage 1 + Stage 2 coverage ratio
Stage 1 + Stage 2 ECL allowance/Stage 1 + Stage 2 gross loans to customers



Bubble size reflects Stage 2 proportion of Stage 1 + Stage 2 loans at YE 2020

4.1 Analysis of Stage 1 and Stage 2 coverage ratios

The Stage 1 and Stage 2 (performing) coverage ratio (Stage 1 and Stage 2 ECL allowance divided by Stage 1 and Stage 2 gross loans to customers) experienced an increase of 1.5 times on average over the year, with that of a few banks tripling or more (see *Figure 8*).

This represented a very significant increase given the size of the underlying exposures (Stage 1 makes up 85%-90% of the total loan book).

An interesting measure is to compare the Stage 1 and Stage 2 ECL allowance to one year of pre-pandemic Stage 3 losses (refer to *Figure 10*). This ratio indicates how many years of Stage 3 losses the Stage 1 and 2 allowances cover. At year-end 2020, using the 2019 Stage 3 losses as a reference, the Stage 1 and 2 ECL allowance represented 2.4 times the Stage 3 losses, compared with 1.4 at year-end 2019. However this average increase hides a wide dispersion between banks, with ratios varying from one to six.

The distribution of coverage ratios was already quite wide in 2019. This is particularly visible in the UK and Germany.

The dispersion is driven by the characteristics of products (loan to value, collaterals, guarantees and origination criteria) and local economics, but the increase may also reflect differences in IFRS 9 approaches.

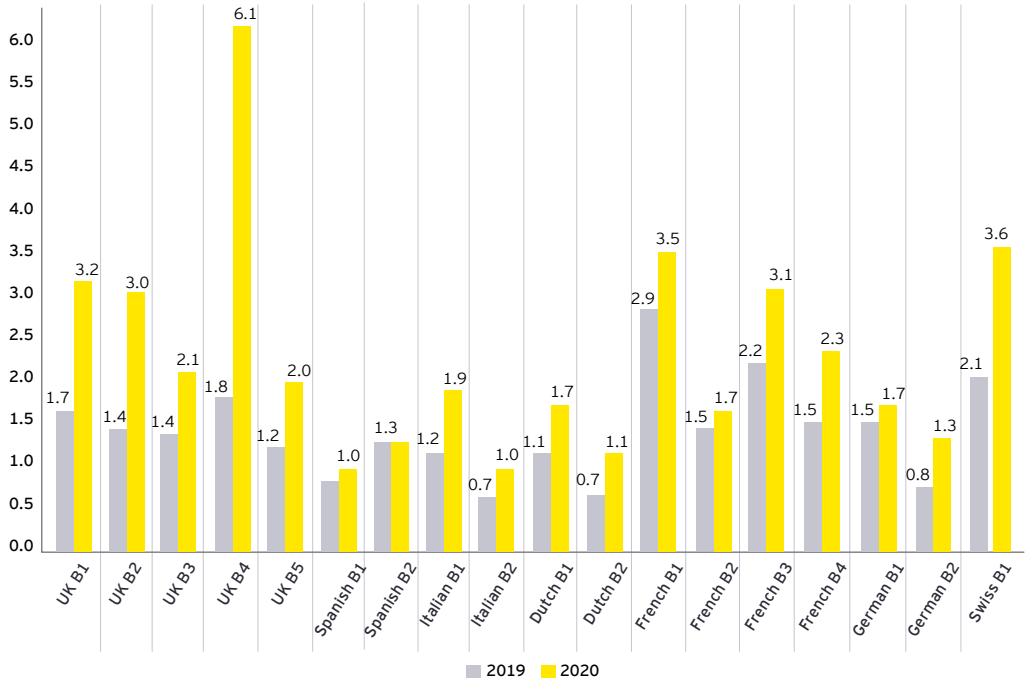
Banks with lower coverage ratios at the beginning of the year have often increased the most their CoR in the course of 2020. In a few cases, banks have caught up with their counterparts. This is reflected on *Figure 9* which compares the coverage ratios on performing loans to customers at year-end 2019 (on the horizontal axis) and by how much banks have multiplied their 2019 CoR in 2020 (on the vertical axis).

Performing exposures: coverage ratio and Stage 2 loan proportion (continued)

Figure 9: Increase in CoR (2020 CoR divided by 2019 CoR) compared to year-end 2019 Stage 1 + Stage 2 coverage ratio

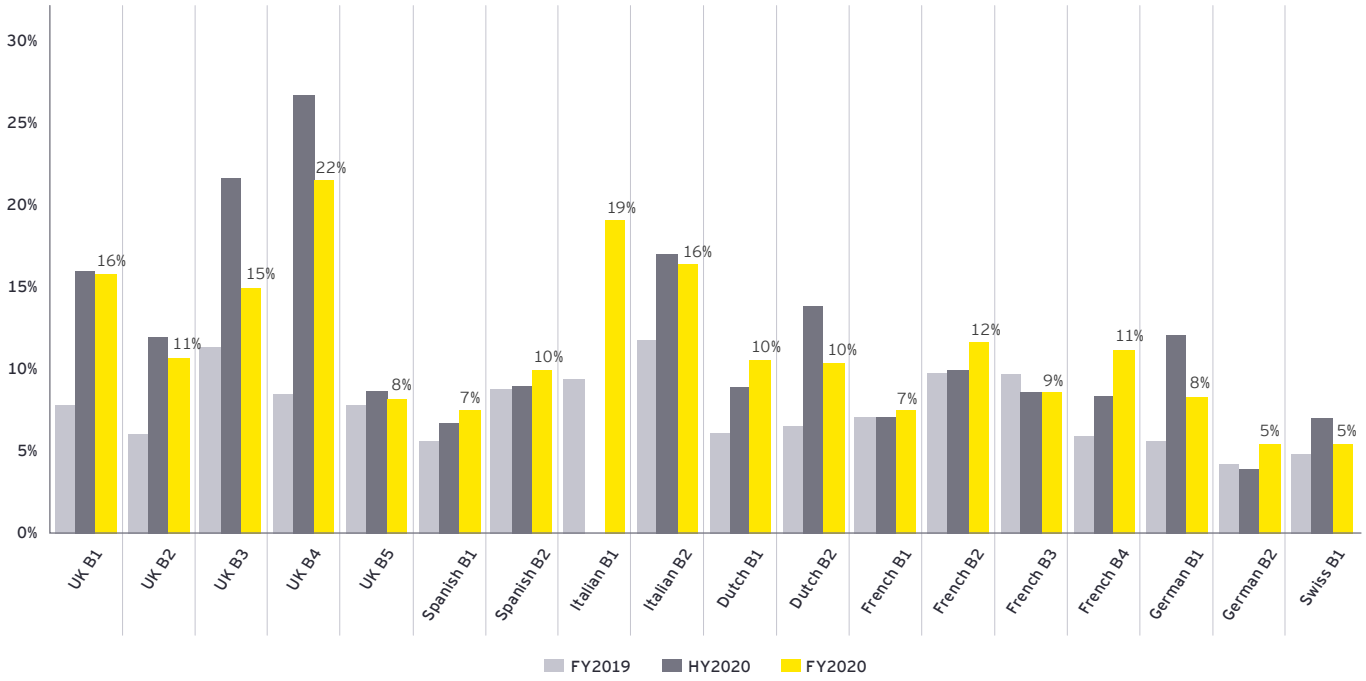
Bubble size reflects Stage 2 proportion of Stage 1 + Stage 2 loans at YE 2019

Figure 10: How many years of 2019 S3 losses does the Stage 1 + Stage 2 allowance represent? (Stage 1 + Stage 2) ECL allowance/2019 S3 losses



Performing exposures: coverage ratio and Stage 2 loan proportion (continued)

Figure 11: Stage 2 gross loans to customers as a proportion of Stage 1 and Stage 2 loans to customers



4.2 Stage 2 loan proportion

The increase in Stage 1 and Stage 2 coverage ratios was driven in large part by an increase in Stage 2 exposures.

The average proportion of Stage 2 exposures has increased from 7.6% to 11% of performing exposures. But there is considerable variety in trends throughout 2020, as well as some quite different starting points before the crisis, as shown in *Figure 11*.

A first group of banks has recognized a sharp increase in Stage 2 exposures in the first half (in dark grey), with some of them seeing a decrease in the proportion in the second half. A couple of banks have experienced a larger increase in the second half whereas a few others show limited increase compared with 2019.

This reflects local differences in national economic outlook due to local differences in the spread of the virus, containment measures and government support. But it may also reflect that banks have designed their Stage 2 triggers with varying levels of sensitivity to forward-looking information and may have used different ways to tackle the lack of visibility due to moratoria and other support measures, through the use of overlays and portfolio approaches.

Based on regulators' published guidance, large-scale moratoria were generally not considered to be forbearance measures and did not trigger Stage 2 transfers on a standalone basis. Then, because moratoria and guaranteed loans improved the apparent credit quality of borrowers (no arrears and/or larger cash balances), the effects of the crisis were not observable in

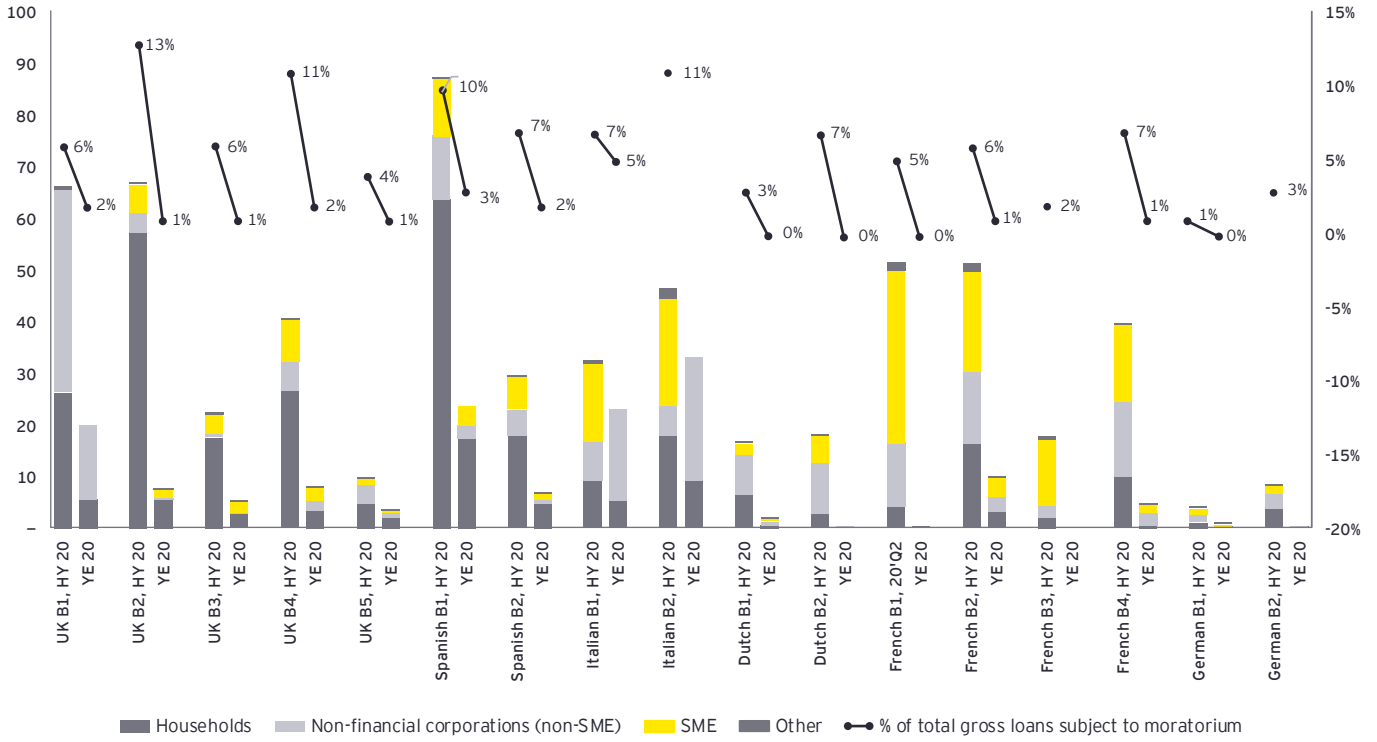
Performing exposures: coverage ratio and Stage 2 loan proportion (continued)

the customers' financial performance. Hence, it was very challenging for banks to identify a significant increase in credit risk at an individual-borrower level.

Movements in forward-looking PD were, therefore, the main driver for transfers as opposed to the more lagging backstops based on delinquency and forbearance. Banks also supplemented their quantitative and qualitative criteria with targeted analyses for vulnerable sectors and for borrowers that had weaker pre-crisis ratings. They also strengthened the level of client monitoring implemented by credit managers and refined the analysis of accounts movements to differentiate cash inflows stemming from support measures versus actual business activity. When modeled PDs were not increasing, banks used overlays to increase the ECL, but this was not always visible at the level of Stage 2 exposures as the overlays were additions to the ECL allowance and actual exposures were not transferred.

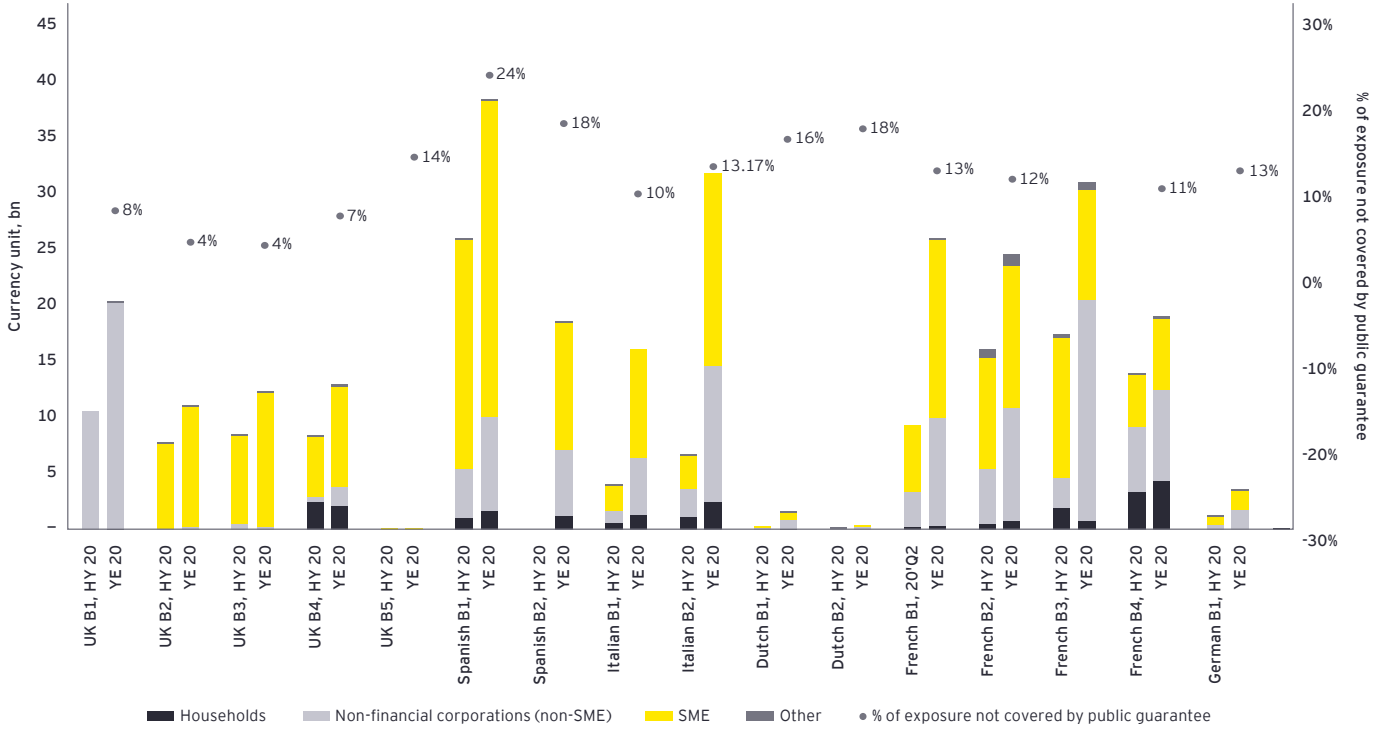
As shown in *Figure 12*, most banks highlighted a material decrease in large-scale moratoria at year-end and the overall good performance of customers for whom the moratoria had expired. But they also stressed that significant uncertainties remained over the length and scale of support measures.

Figure 12: Loans and advances subject to legislative and non-legislative moratoria (unexpired)



Performing exposures: coverage ratio and Stage 2 loan proportion (continued)

Figure 13: Newly originated loans and advances provided under newly applicable public guarantee schemes



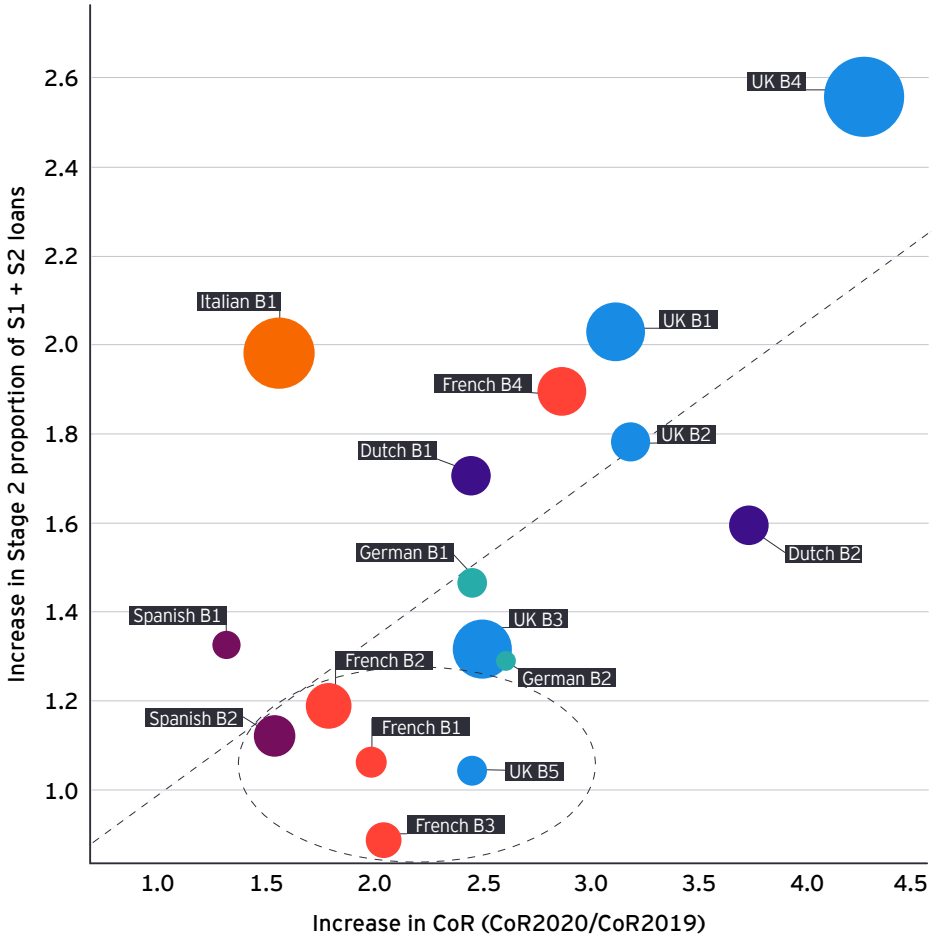
NB: for Italian B2 and French B3, the guaranteed amounts were not disclosed at FY 2020.

For Italian B1, Italian B2, French B1, French B3 and French B4, the counterparty allocation was not available at the date of analysis. Therefore, the full balance has been allocated to "other".

As shown in *Figure 13*, originated loans under newly applicable public guarantee schemes represented significant volumes in some countries at year-end (e.g., France). The graph shows the diversity in the application of this measure between countries: although some countries show a limited impact on banks' balance sheets (such as in the Netherlands or Germany), other countries (like France) have widely used this measure to support the economy through banks' balance sheets. The level of guarantee provided by the government also differs between countries and between banks as some schemes involved a different level of guarantee depending on the size of the company. Guaranteed loans involve similar uncertainties as moratoria, with longer-term effects, as they also often involve payment holidays and have increased the level of leverage.

Performing exposures: coverage ratio and Stage 2 loan proportion (continued)

Figure 14: Increase in Stage 2 loans to customers compared with increase in CoR (2020 CoR divided by 2019 CoR)



Bubble size reflects Stage 2 proportion of Stage 1 + Stage 2 loans at YE 2020

4.3 Increase in Stage 2 loan proportion compared with increase in CoR

We also considered how the increase in Stage 2 exposures relates to the level of increase in CoR (similar to the analysis published in the ECB supervision blog "*Who pays the piper calls the tune*" by Elizabeth McCaul, 4 December 2020).

Figure 14 shows that some banks have experienced a significant increase in CoR (reflected as a multiple of 2019 CoR), which does not necessarily reflect in the increase in Stage 2 transfers. This is due to the challenges raised by the estimate of the impact of support measures on borrowers' viability and the use of material overlays (not always translated into Stage 2 transfers).

Some catch-up increase in Stage 2 exposures may be observed in 2021 as banks identify more significant deterioration and apply more transfers in line with the amount of ECL increased through overlays in 2020.

Non-performing exposures and total coverage ratios

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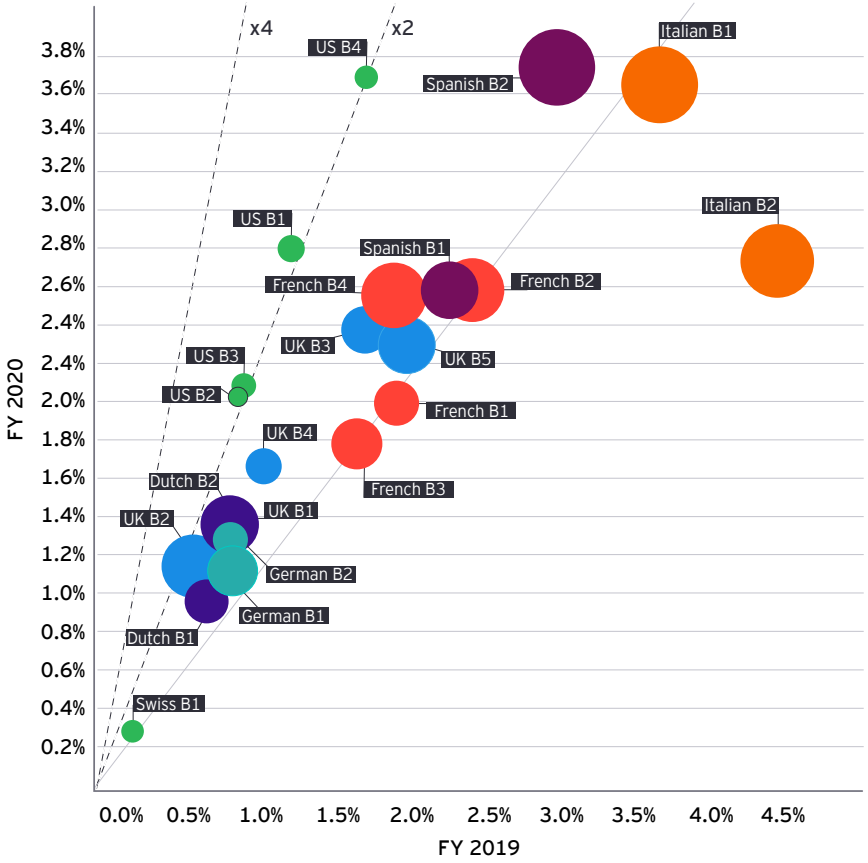
Figure 15: Total coverage ratio (all stages)
Total ECL allowance/Total gross loans to customers



Bubble: Bubble size reflects Stage 3 proportion of gross loans to customers at YE 2020

5.1 Stage 3 transfers and write-offs

The challenges faced by banks to look through the effect of support measures to assess the resilience of borrowers is also reflected in the relative stability of Stage 3 transfers and write-offs.

Net transfers to Stage 3 increased slightly, but this was generally driven by significant single-name losses not directly linked to the COVID-19 crisis. Write-offs were generally stable in 2020 compared with 2019 (including for US banks).

5.2 Total coverage ratios (Stage 1, Stage 2 and Stage 3)

As shown in *Figure 15*, the increase in total coverage is more limited than for performing loans only. The magnitude of the increase of Stage 1 and 2 provisions is diluted by the impact of Stage 3 for which the coverage ratio was stable or decreased.

In contrast, US banks doubled their total coverage ratios (with a wide range between 1.3% and 2.7%). This is partly due to quicker write-offs and a lower proportion of non-performing loans (0.85% on average), meaning that credit-impaired exposures are normally better-quality and attract a lower ECL allowance.

The level of non-performing loans will be a key indicator of how economies perform when support measures come to an end in the coming months, and it is therefore relevant to observe how banks compare at year-end. This is reflected in *Figure 15* by the "bubble" size, with Italy and Spain showing the highest levels (respectively 4.4% and 3.9%), followed by France and Germany (3.1%), the Netherlands (2.8%), the UK (2.6%) and Switzerland (0.8%).

Observable trends: the product and counterpart lens

6

Figure 16: Product segmentation: Stage 2 loans as a proportion of Stage 1 and Stage 2 loans

6.1 Product segmentation

Only a small sample of banks provided the ECL impact split between products. This means that determining whether the drivers are wholesale exposures, smaller businesses, retail unsecured or mortgages is not possible for most reporters. In our analysis of the product segmentation, we obtained the segment data from either the annual reports or Pillar III disclosures. Personal unsecured loans mainly consist of credit cards and overdrafts.

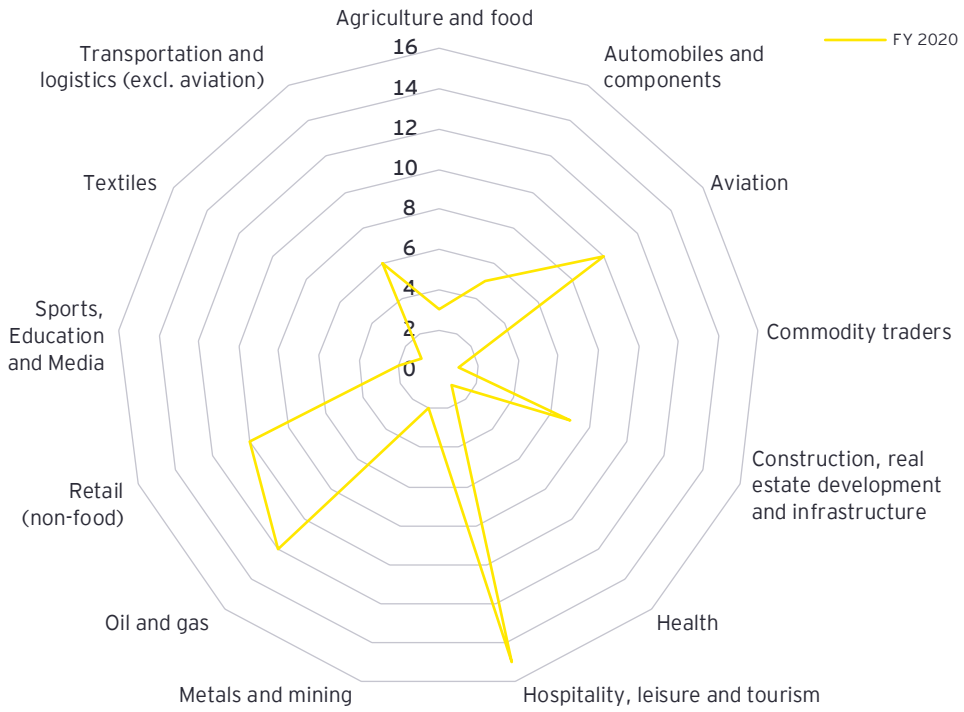
For banks that provided detailed information, as it can be seen in *Figure 16*, wholesale portfolios showed the largest increase in Stage 2 (+88%), with SMEs reflecting a consistent but more nuanced trend (+48%). The more nuanced increase for SMEs, along with personal unsecured exposures, reflect the difficulty banks experienced in identifying early signs of deterioration for individuals and smaller businesses.

Wholesale portfolios also exhibited the highest increase in the Stage 1 and Stage 2 (performing) coverage ratio with an average increase of 116%, followed by personal unsecured loans (average increase of 68%).

The increase in total coverage ratios was consistent but less pronounced when compared to the Stage 1 + Stage 2 ratio, with a mild increase for household exposures.

6.2 Vulnerable sectors

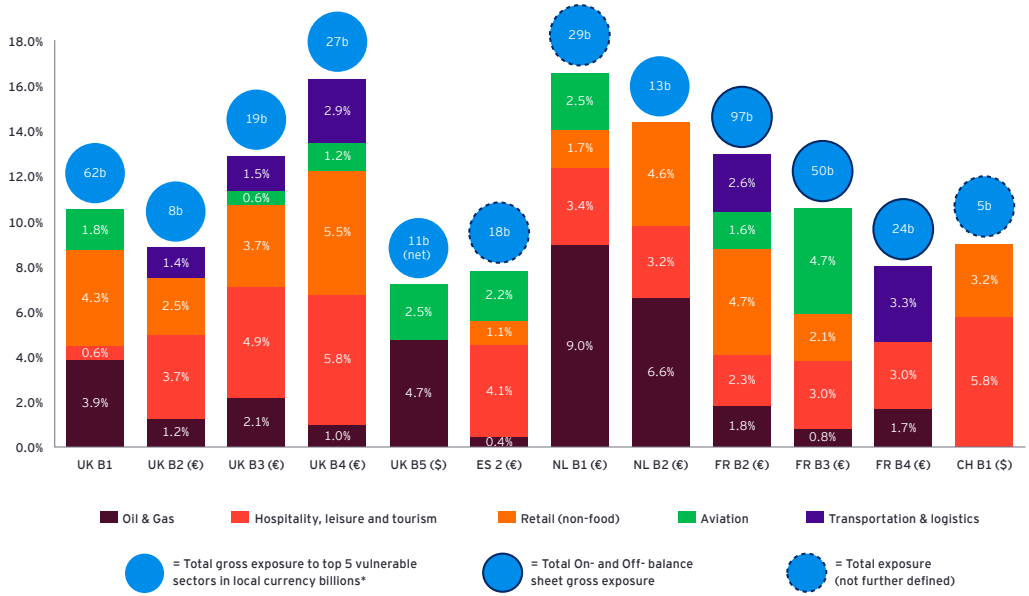
Figure 17: Number of banks citing specific vulnerable exposures



** This graph is based on the sectorial disclosures provided by 15 banks in our sample*

Almost all banks added an emphasis on vulnerable sectors in their disclosures. From our analysis, the top five sectors (in terms of vulnerability) presented in the disclosures were: non-food retail, aviation, oil and gas, transportation and leisure/hospitality (see *Figure 17*). From these sectors, oil and gas, hospitality and retail represented the largest exposures. Across banks, as shown in *Figure 18*, the proportion of vulnerable sectors' exposure to the total wholesale book varied from 7% to 16%. However, the information provided is not consistent across the population. For example, some banks disclosed the gross carrying amounts of their vulnerable sectors' exposures whereas others have considered their exposure at default. In other cases it was not immediately clear what type of exposure was presented.

Figure 18: Gross exposure to top five vulnerable sectors as % of total wholesale loans

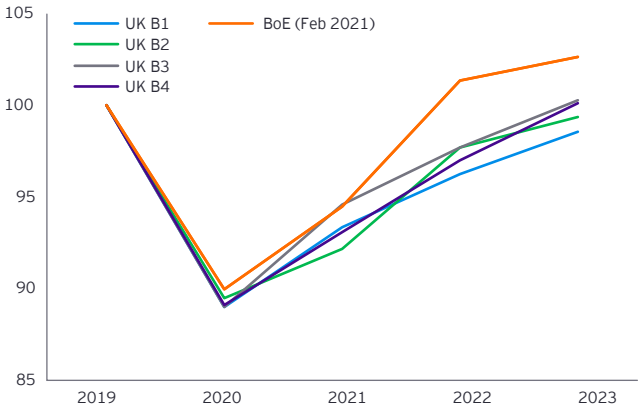


** Note that data is not fully comparable, as the basis of preparation differs (e.g., gross vs. net book values or Exposures At Default) and, in some instances, is not disclosed*
*** This graph is based on the quantitative sectorial disclosures provided by 12 banks in our sample*

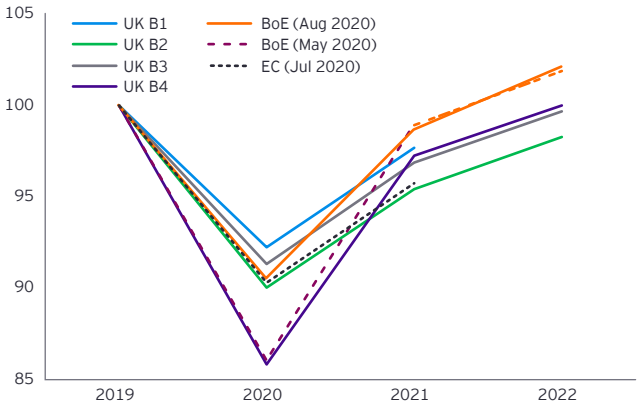
Macroeconomic forecasts

7

Figure 19: Year-end (left) vs. half-year (right) 2020 GDP forecast in the UK (2019=100)

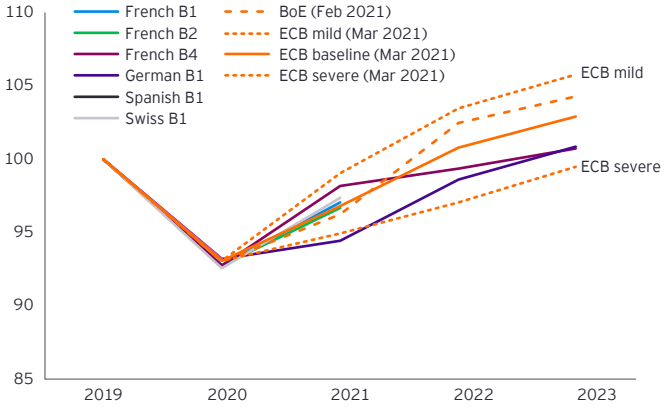


Source: Bank of England (BoE), Monetary Policy Report, February 2021

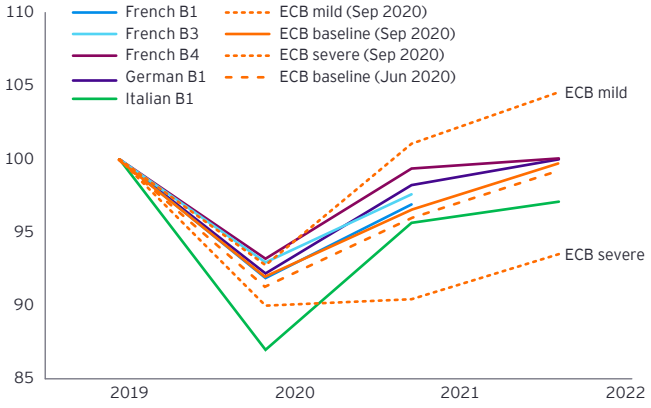


Source: European Commission (EC), Summer 2020 Economic Forecast, July 2020; Bank of England (BoE), Monetary Policy Report, August 2020; Bank of England, Monetary Policy Report, May 2020

Figure 20: Year-end (left) vs. half-year (right) 2020 GDP forecast in the Eurozone (2019=100)



Source: European Central Bank (ECB), Eurosystem Staff Macroeconomic Projections, March 2021; Bank of England (BoE), Monetary Policy Report, February 2021



Source: European Central Bank, Eurosystem Staff Macroeconomic Projections, September 2020; European Central Bank, Eurosystem Staff Macroeconomic Projections, June 2020

7.1 Forecasts for 2021 and beyond

The GDP forecasts show an improved outlook for 2021 and beyond compared with 2020, as shown in *Figures 19 and 20*. The trend is similar across both the Eurozone and the UK, with a much quicker recovery predicted for 2022 in the UK.

As we have mentioned in section 3, the increase in Stage 1 and Stage 2 provision is driven by forward-looking information. The revision of the baseline scenario has been the primary driver as evidenced by the revised pattern of growth rates that banks incorporated into their models. This was one of the most challenging areas in the first half of the year, especially in Q1 as no revised scenario was publicly available in time for the Q1 closing (in particular from regulators) and uncertainty was extreme. In Q1, banks generally used overlays and only revised their scenarios in Q2.

There was little update required for Q3 as economies generally performed better in the third quarter than expected at half-year, but at the same time, more generally uncertainties arose at the end of the quarter.

Q4 generally resulted in further deterioration of the assumptions due to new lockdowns and the perspective of harder second and third waves and longer vaccination processes.

Based on the banks' forecasts, the 2019 level is reached again at the end of 2022 or in 2023. Also, as can be seen in Figures 19 and 20, there is an overall good convergence, but with banks having slightly lower projections than regulators' revised forecasts.

Macroeconomic forecasts (continued)

7.2 Scenarios

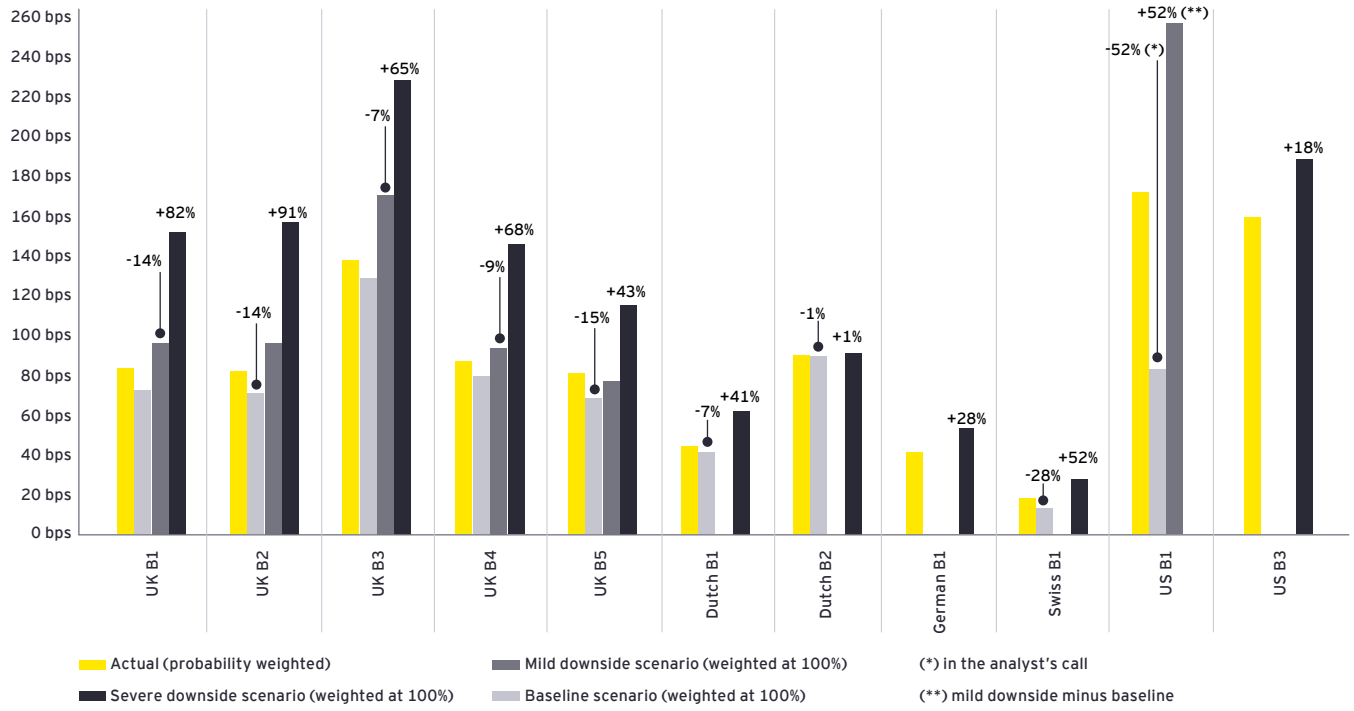
The uncertain environment has also given prominence to the use of multi-scenarios in ECL estimates.

Half of the banks in the sample provide sensitivity analysis showing what the ECL allowance would amount to under each individual scenario if weighted at 100%. Although the number of banks is more limited, our analysis shows significant differences between the reported ECL and what it would be under the alternative downside scenarios, as shown in *Figure 21*. The graph compares the CoR as reported, and then how it would look like if each alternative scenario was weighted at 100% (we have focused on baseline and downside scenarios only). We observed that the difference between the effect of the central scenario in isolation and the reported probability weighted ECL is around 15%. Meanwhile, the difference between the effect of the severe downside scenario and the reported ECL is 50% on average.

There are very significant differences that are difficult to analyze as they may be due to a combination of factors, such as:

- **Assumptions:** consideration needs to be given to the level of stress applied in the downside scenarios, the dispersion of alternative scenarios used, but also the differences in assumptions taken in the central scenario.
- **Weights:** As reflected in *Figure 22*, scenarios are balanced by different weights. An extreme scenario with an assigned weight of 5% may be less impactful than a milder one with a higher weight.
- **Products and geographies:** the range of products vary as well as the trends and assumptions observed across different geographies.

Figure 21: CoR of alternative scenarios: actual/baseline/mild downside/severe downside



Overall, it was noted that different approaches were used across the analyzed population.

This also applied to the US where, for example, one bank showed an increase on the mild downside over the reported ECL allowance close to 50% whereas another bank projected an increase on the severe scenario compared with the reported ECL close to 20%.

The use of dissimilar sensitivity analysis made comparisons challenging: some banks compare the ECL allowance under each scenario weighted at 100% with the reported ECL allowance, whereas others use the baseline ECL allowance as a benchmark; also, although some banks recalculated the full ECL allowance under each scenario, other banks recalculated it for Stage 1 and Stage 2 only.

Macroeconomic forecasts (continued)

7.3 MES weightings

Scenarios are then balanced by different weights. *Figure 22* shows how banks have rebalanced the weights of alternative scenarios to reflect increased uncertainties. We observed that half of the banks had decreased the weight of the baseline to put more weight on the downside (including with the addition of a new alternative downside scenario).

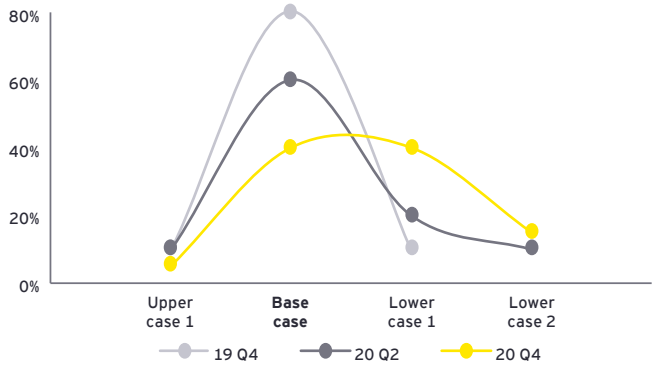
There is a variety of approaches in the scenario weightings:

- Some banks have retained the same weightings, considering that they remained appropriate given the revision of scenarios.
- One bank explained the weights are designed to react to the point in the cycle, which means that the lower case gets less weight in the current circumstances.
- Others had a more ad hoc judgmental approach, i.e., some reduced the number of scenarios and removed the most extreme ones, but others added additional downsides.

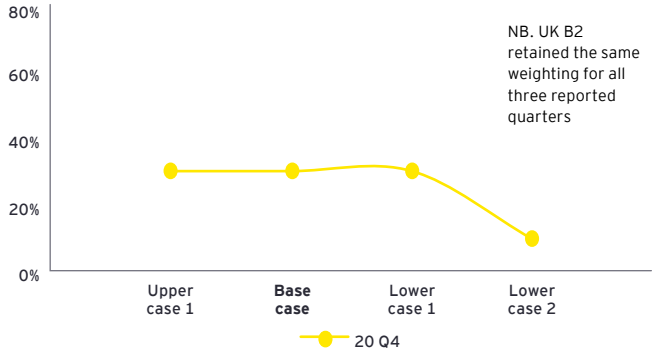
Macroeconomic forecasts (continued)

Figure 22: Macroeconomic scenario (MES) weightings: Q4 2019, Q2 2020 and Q4 2020

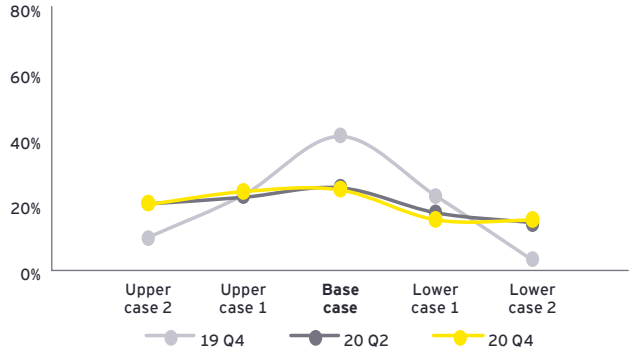
UK B1 MES weightings



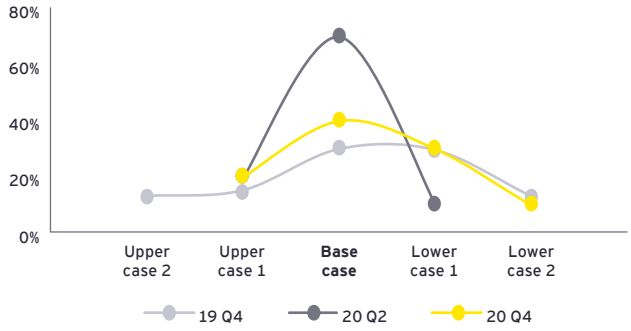
UK B2 MES weightings



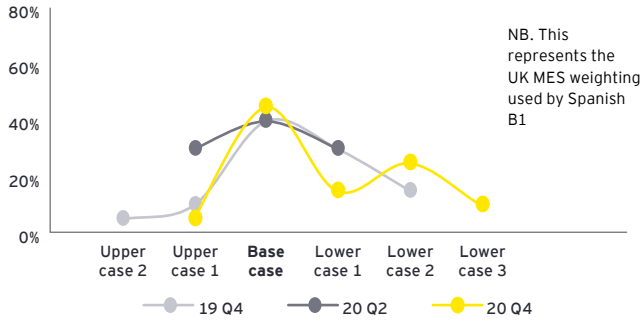
UK B3 MES weightings



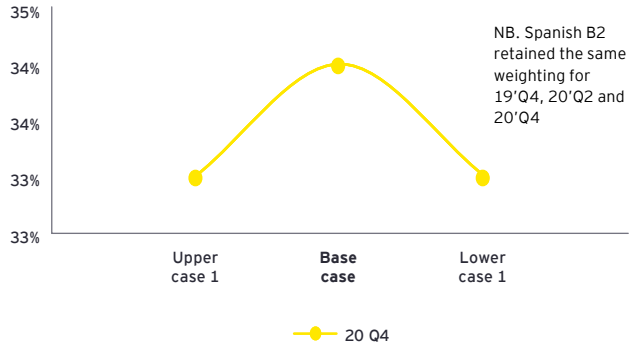
UK B4 MES weightings



Spanish B1 MES weightings



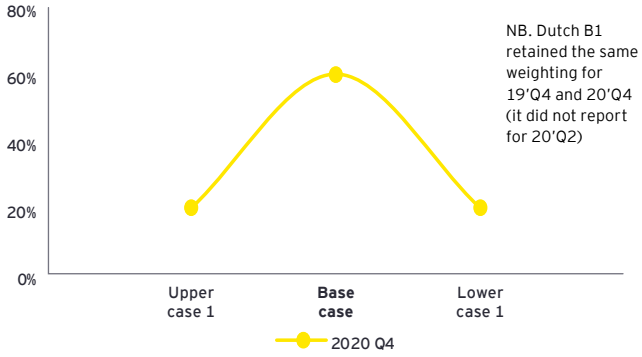
Spanish B2 MES weightings



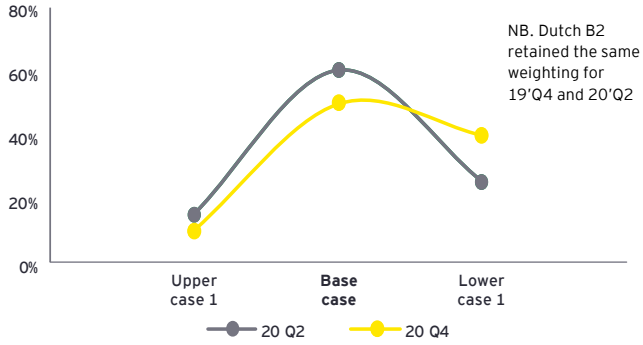
Macroeconomic forecasts (continued)

Figure 22: Macroeconomic scenario (MES) weightings: Q4 2019, Q2 2020 and Q4 2020 (continued)

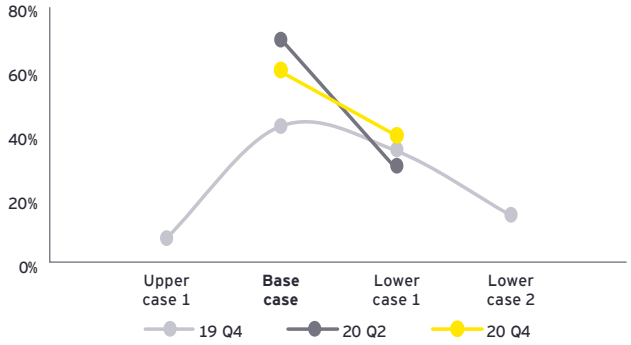
Dutch B1 MES weightings



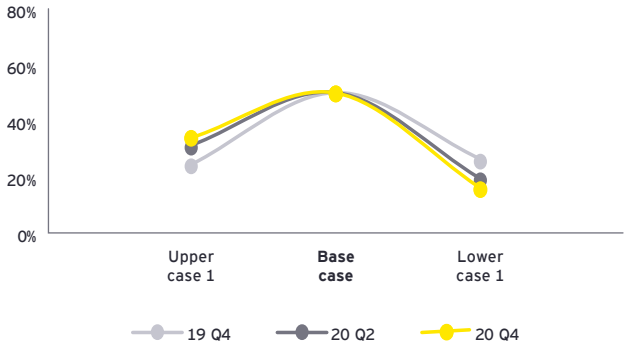
Dutch B2 MES weightings



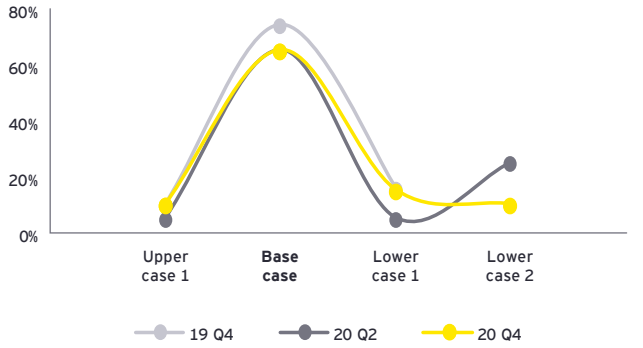
Swiss B1 MES weightings



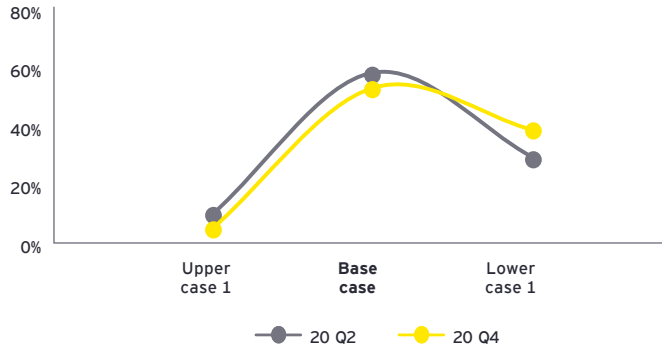
French B2 MES weightings



French B4 MES weightings



Italian B1 MES weightings



Insights on 2020 ECL disclosures

8

8.1 Overview

In 2020, banks provided a significant amount of information on ECL and the level of detail surrounding credit risk disclosures has generally improved. Although this means that users were provided with a wealth of information on credit risk and how it has evolved in the financial year, consistency of the information disclosed remains a challenge, especially considering the amount of judgment involved in the application of IFRS 9. Despite this challenge, IFRS 9 continues to be perceived by most users as a definite improvement from IAS 39 and this was especially tested under the exceptional circumstances of the COVID-19 pandemic.

The key focus areas for the purpose of our analysis were disclosures on:

- Multiple economic scenarios
- Post model adjustments and management overlays
- Sensitivity
- Vulnerable sectors

We have also looked at the granularity of information provided on ECL, e.g., the breakdown of information provided by portfolios (e.g., wholesale versus retail).

The purpose of the analysis was to understand whether the disclosures provided in those areas would allow a good level of understanding of the ECL estimate and the underlying assumptions, as well as a comparison between the banks.

8.2 Multiple economic scenarios

One of the areas we have looked at is whether banks have provided the users of the financial statements with enough information to understand the key economic assumptions behind the ECL estimates in the period.

Overall, the level of detail is significant. Almost all banks from the population that we analyzed disclosed key information such as the number of economic scenarios used, the weightings assigned to these scenarios, the key macro-economic parameters, as well as a narrative to tell the story of how credit risk for the year has been quantified. However, there was significant diversity in practice on how the disclosures were provided.

In *Figure 23*, our analysis showed that the number of economic scenarios disclosed differs across banks, with the majority disclosing between three and four scenarios. In general, UK banks disclosed more scenarios than other European banks.

The length of the forecast period disclosed also varies, with some banks providing an outlook only for the next one or two years, whereas others projected further into the future (up to five years).

The picture is quite mixed also on the number of the key economic parameters disclosed (*Figure 24*). An average of three to five parameters was disclosed, with some banks providing information only on one or two parameters.

Another challenge is with the presentation of those parameters, with some banks providing yearly averages, others quarterly averages, others five-year averages and others only the peak and trough values over the forecast period.

Figure 23: Number of scenarios disclosed

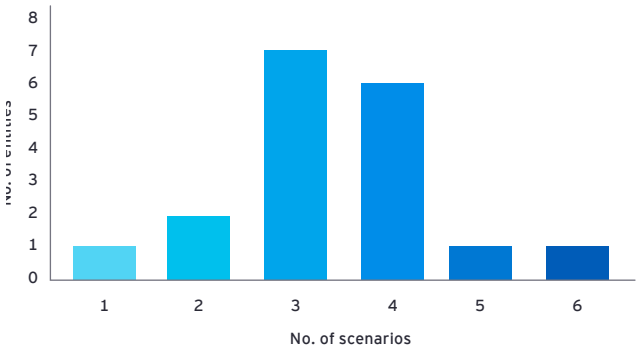
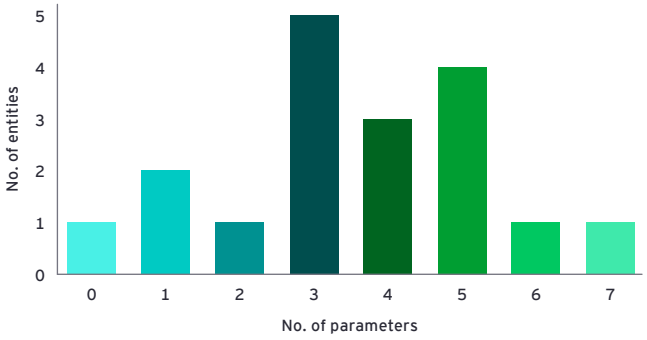
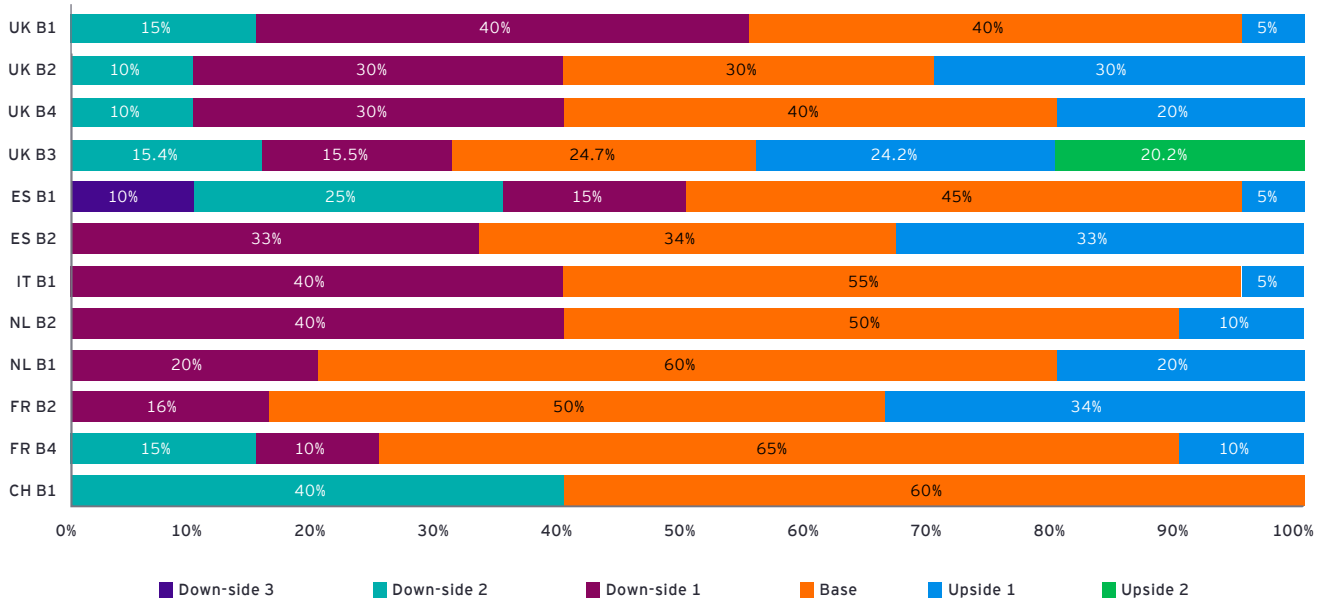


Figure 24: Number of parameters disclosed*



* *For the home country/key geographical area*

Figure 25: Probability weights assigned to the macroeconomic scenarios (for banks who disclosed it)



Finally, the weighting assigned to each of the economic scenarios varies significantly amongst banks in our population. For example, the weighting of the base case varies from 24.7% to 65%, as shown in *Figure 25* above. We have discussed in the previous sections (see **paragraph 7.3** on page 22) how this assumption can significantly affect the overall ECL estimate.

Although all the above differences do not necessarily mean that is never possible to compare banks against each other, it appears evident that in most cases, information has to be translated or adjusted before being compared and in some cases, this represents a challenge.

8.3 Post-model adjustments and management overlays

Another area of focus of our benchmarking exercise is the level of disclosures on post-model adjustments (PMAs) and management overlays (MOs), i.e., any adjustment to the modeled output when estimating ECL. As shown in *Figure 26*, the level of information provided by banks varies, from providing no disclosures or only a narrative disclosure, where the adjustment is disclosed in nature but not quantified, to a more granular analysis, with some banks even disclosing the impact of the adjustment by portfolio and the effect on staging.

It will be interesting to monitor the developments of the judgments and estimates on this area in the next reporting periods and observe whether there is going to be a level of unwinding of the adjustments made to the modeled loan loss allowance. It will depend on whether the current economic uncertainty reduces and whether other events will occur in the future which may affect the models' outputs. Disclosures in this area will therefore continue to be important.

Figure 26: Information disclosed on PMAs and MOs

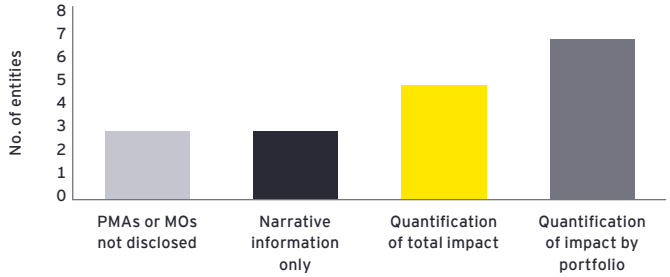
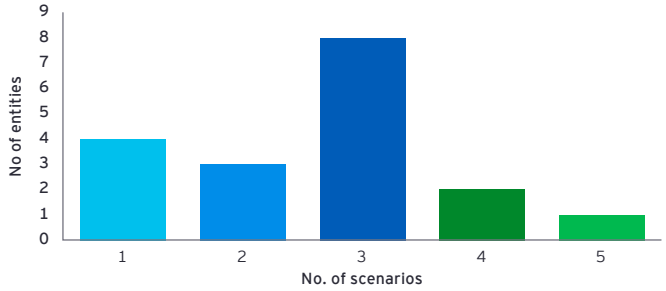
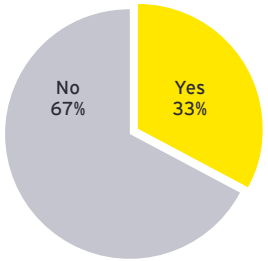


Figure 27: Number of scenarios used in the sensitivity analysis



1 Disclosure of Expected Credit Losses, a Taskforce of preparers, investors and analysts jointly established and sponsored by the Financial Conduct Authority (FCA), the Financial Reporting Council (FRC) and the Prudential Regulatory Authority (PRA).

Figure 28: Is the impact of the base case disclosed in the sensitivity analysis?



8.4 Sensitivity

In 2020, banks continued to provide a significant level of multi-factor and single-factor sensitivity analyses (*Figure 27*) as well as narrative disclosures to further explain their approach and assumptions. UK banks generally provided sensitivities disclosures on more economic scenarios than their European counterparts, probably pushed by regulatory initiatives in this area, such as DECL.[1] The most common disclosure included three scenarios; however, certain inconsistencies were found in the basis of preparation and presentation of the relevant disclosures.

Often the sensitivity is done by weighting by 100% some of the multiple economic scenarios, in which case it is interesting to compare this to the effect of a 100% weighting of the base case, as it gives a measure of the impact of multiple economic scenarios on the booked ECL. As shown in *Figure 28*, we could find this information for less than half of the banks in the sensitivity disclosures.

From our analysis, it was also observed that approximately 40% of banks disclosed the effect of sensitivities on staging (*Figure 29*), meanwhile, as shown in *Figure 30*, less than one-third incorporated the effect of PMAs and MOs. Fifteen per cent of banks disclosed single-factor sensitivities (e.g., the impact of shifts in the unemployment rate and house pricing indices on retail portfolios, or moving all credit exposures to full lifetime ECL).

The impact of the sensitivity analysis by portfolio (e.g., retail and wholesale) was disclosed in 56% of the cases, with some banks providing more granularity than others (the number of portfolios disclosed varies from two to seven).

Figure 29: Is the effect of sensitivities on staging disclosed?

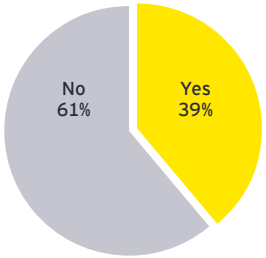
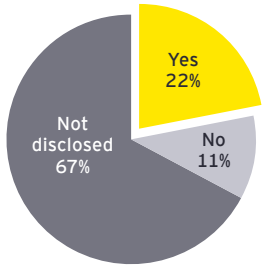


Figure 30: Is the impact of PMA/MOs considered in the sensitivity analysis?



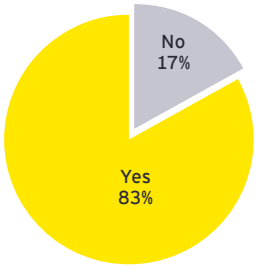
8.5 Vulnerable sectors

In 2020 we have seen banks providing more disclosures of the industry sectors most significantly affected by the COVID-19 pandemic, which are generally referred to as "vulnerable sectors." This is an area we understand is a focus for many analysts in the current unprecedented circumstances. The "top 5" sectors identified as vulnerable, and for which banks in our sample have more often identified a material level of exposures, are shown in paragraph 6.2 on page 19.

As shown in *Figure 31*, almost all banks in the scope of our benchmark provided a level of disclosure on vulnerable sectors; however, as noted in section 6.2, the information provided is not consistent across the population. We have previously observed how differences exist in the basis of presentation of the information. Additionally, not all banks have disclosed their off-balance sheet exposures to vulnerable sectors.

To provide more information on the quality of a bank's exposure to vulnerable sectors, it is generally considered helpful to provide information about the staging of these exposures. This disclosure was observed in only 27% of the cases, which suggests this could be an area for improvement, although this is not a mandatory disclosure under IFRS.

Figure 31: Information on vulnerable sectors disclosed



** Note that data is not fully comparable, as the basis of preparation differs (e.g., gross vs. net book values or Exposures At Default) and, in some instances, is not disclosed*

Insights on 2020 ECL disclosures (continued)

Figure 32: Vulnerable sectors – illustrative disclosure example

Staging allocation

Values are for illustrative purposes only	Stage 1			Stage 2			Stage 3			Total		
	GCA	ECL	NCA	GCA	ECL	NCA	GCA	ECL	NCA	GCA	ECL	NCA
Industry												
Aviation	8	(2)	6	...						**15**	**(7)**	**8**
Leisure and entertainment	15	(2)	13	...						**43**	**(18)**	**25**
Oil and gas	2	–	2	...						**8**	**(3)**	**5**
Retail	32	(2)	30	...	...	...	...	...	...	**78**	**(12)**	**66**
Commercial real-estate	5	(1)	4	...	...	...	...	...	...	**16**	**(5)**	**11**
Total	**62**	**(7)**	**55**	**...**	**...**	**...**	**...**	**...**	**...**	**160**	**(45)**	**115**

Consider disclosing separately the off-balance sheet exposures (e.g., loan commitments)

Geographical distribution*

Values are for illustrative purposes only	Region A	Region B	Region C	Region D	Region E	NCA Total
Industry						
Aviation	6	1	...	...	...	**8**
Leisure and entertainment	4	-	...	...	...	**25**
Oil and gas	1	-	...	...	...	**5**
Retail	18	12	...	...	...	**66**
Commercial real-estate	3	1	...	...	...	**11**
Total	**32**	**14**	**...**	**...**	**...**	**115**

* Consider disclosing separately the GCA, ECL and NCA for the most significant geographical regions

GCA = Gross Carrying Amount

NCA = Net Carrying Amount

Figure 33: Granularity of information

8.6 Granularity of information

Overall, banks provided a significant level of information on their credit risk exposures in their 2020 annual financial statements, both in qualitative and quantitative terms. In line with the general remark made in the previous sections of the document, there still appears to be room for an increased consistency of these disclosures in order to allow for an easier comparison amongst banks. For example, as shown in *Figure 33* above, only 56% of the population in our sample provided the split of their exposures between retail and wholesale for their balances and movement tables. Of those who provided such breakdown, although 80% disclosed mortgages separately from their general retail exposures, only 30% distinguished large corporates from SMEs.

Almost all banks provided a disclosure of the overall cost of risk in the period by stage (i.e., the profit or loss ECL charge, separately by Stage 1, 2 and 3), which is a metric that many users of the financial statements, including analysts, find particularly interesting (see *Figure 34*).

Another area of focus for many users of banks' financial statements is the credit quality of the Stage 2 portfolio, as it relates to exposures that can have significant differences in terms of probability of default and in overall quality. Providing further insights into the risks associated with those exposures is therefore considered important. One piece of information that is generally considered helpful in this area is the breakdown of the Stage 2 population by risk grade (PD bands and/or internal or external credit ratings). Although almost all banks provide a disclosure of the breakdown of Stage 2 assets by risk grade, the granularity (i.e., number of risk bands) is quite heterogeneous (*Figure 35*) and there is not always a clear and direct reconciliation between PDs and internal or external ratings. This is, therefore, another area where further steps may be considered to enhance the understanding by users of the information, although, undoubtedly, there have been significant efforts made by the banks in terms of transparency.

Figure 34: Split of COR by stage

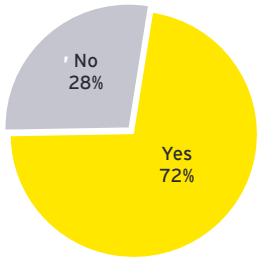
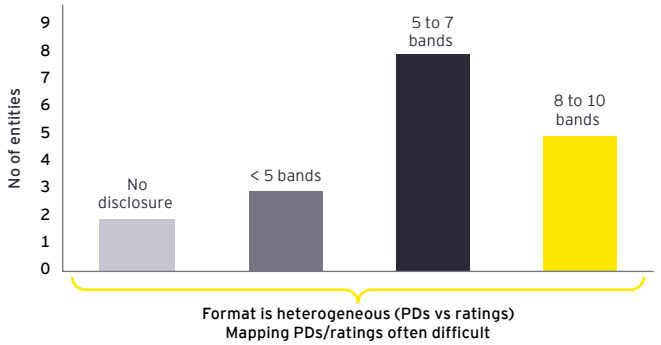


Figure 35: Breakdown of Stage 2 assets by risk grade



How EY teams can support you

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Key considerations for IFRS 9 ECL calculations in 2021 include assessing model performance, incorporating 2020 data, planning for future unprecedented economic events, remediating underlying model improvements and governance over releases of management overlays.

As we look ahead to IFRS 9 activities in 2021, the current environment remains challenging for calculating and explaining IFRS 9 expected credit loss, especially as models and processes are still catching up with the unprecedented environment and continued low default levels. IFRS 9 also continues to be a focus area for market analysts and banking regulators. The specific areas of focus are:

- Updates to the macroeconomic outlook and scenario weightings in light of frequent changes
- Determining the impact of support measures and banks' current visibility around the viability of borrowers
- Improvements to data and monitoring processes to assist in timely identification of troubled borrowers
- Understanding of model weaknesses to identify in-model/post-model adjustments versus model improvements
- Balancing economic data and model results with expert judgment of risk in portfolios
- Data and processes needed for transparency in financial reporting
- Focus on the management of non-performing loans
- Control environment considerations considering increased judgment and changes to processes introduced, such as the introduction of government support schemes

There are several distinct areas where we believe EY can support your continued IFRS 9 improvement/ remediation efforts:

- Support in the remediation of underlying model weaknesses that were exacerbated during the pandemic
- Advise on the considerations of how to take into account the 2020 economic data in modeling frameworks. In 2020, the pandemic related shutdowns and the unprecedented government stimulus to consumers and businesses resulted in poor performance of the loss forecasting models and banks had to rely on multiple overlays and adjustments to account for these effects. Banks will need to consider impact of the data on model output, performance and review and challenge
- Advise and support on how further unprecedented economic shocks should be taken into account in the IFRS 9 macro-economic models. The economic environment over 2020 clearly demonstrated the impact and significance of the key economic data points have on the overall IFRS 9 ECL calculation
- Perform an assessment on the current in-model/post-model adjustments processes, data and governance and recommend improvements. Now that extensive overlays have been used, banks need to consider whether there is proper governance and sufficient documentation and support for any releases of these management overlays

Additionally, the approach to credit risk management must be considered. The themes highlighted in this publication demonstrate that the current assessment process should be strengthened to incorporate the financial ecosystem of counterparties. This will require a tactical change in the immediate-term considering methodologies, but the long-term approach can leverage emerging technologies to ensure full alignment to strategic objectives. This will strengthen the resilience of banks and assist in identifying profits in a restrictive economy.

At EY, we have developed several tools that can support this analysis. The graphs produced in this publication were created using "EY Spotlight." This is a powerful analytical tool that efficiently addresses the challenges of IFRS 9 modeling in these unprecedented times by providing deep insight about COVID-19 impacts on ECLs at a glance.

EY contacts

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EY teams have deep experience of IFRS 9 implementation and understand the complexities around disclosures. We are able to advise and support on augmenting your current process, reflecting the guidance of regulators and the concerns of users.

Your local EY contact or the contacts listed below will be able to discuss your requirements in further detail.

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