EY IFRS 9 Impairment Banking Survey

August 2017

IFRS 9 Financial Instruments: impairment countdown to takeoff

As 1 January 2018 quickly approaches, banks are working extremely hard to get ready for a whole new world of loan provisioning in an IFRS 9 world.

The volume of enhancements to a financial institution's organizational engagement, data, systems, quantitative models and governance had been generally underestimated and banks have been busy catching up on the project plans. It is now clear that the management judgment, complexity and volatility in reporting will require more intensive oversight and increased stakeholder scrutiny.

With less than five months to go, banks are entering the final build and parallel run phases of their implementation projects. While good progress has been made, a number of challenges remain, such as data, controls and systems. This has impacted the implementation and testing of key processes and therefore, parallel runs have started later than originally planned.

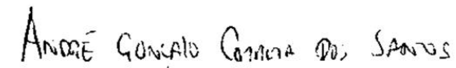
It is clear that the impact on operational processes and financial reporting will not be limited to the transition period and the adoption date of 1 January 2018. Impacts and adaptions will need to be made during 2018 and potentially even 2019.

In 2017, EY performed a third IFRS 9 impairment survey of 29 major banking institutions. The survey was undertaken to assess financial institutions' state of readiness in the implementation of the IFRS 9 program with a particular focus on impairment. This paper outlines the survey results, including the expected impact of IFRS 9, key operating model and policy decisions, and the assessment of business impacts. All results are presented on an anonymous basis.

For further insights on IFRS 9, including how your institution compares to the results in the survey, please contact our survey team in the appendix or your local EY contact.

We hope you find this information helpful as you continue your IFRS 9 impairment journey.

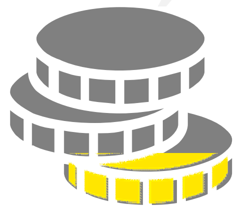
Yolaine Kermarrec
Partner



Andre Correia Dos Santos
Executive Director

IFRS 9 Impairment Survey at a glance

A wide range of expected increases in provisions



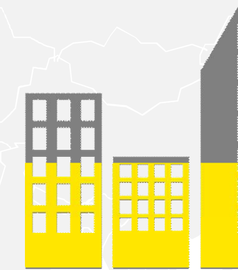
The majority of respondents expect an increase in provisions of up to 15%.

Impact on capital

The majority of respondents expect the estimated impact on the Common Equity Tier 1 (CET 1) ratio to be between 0%-0.25%.

Multiple economic scenarios (MES)

Most of the respondents expect an impact of MES of less than 10%.



40% of banks will apply three scenarios:

base case, upper case and lower case.

Parallel run

Most banks will only perform parallel runs in the second half of 2017.

Impact assessment disclosure

Only 20% of banks will disclose preliminary numbers before Q4 of 2017.

Budget

Half of the larger banks have reported an implementation budget over €60m.

Stage allocation

Approximately 90% of exposures on transition will be classified as stage 1.

Participants profile

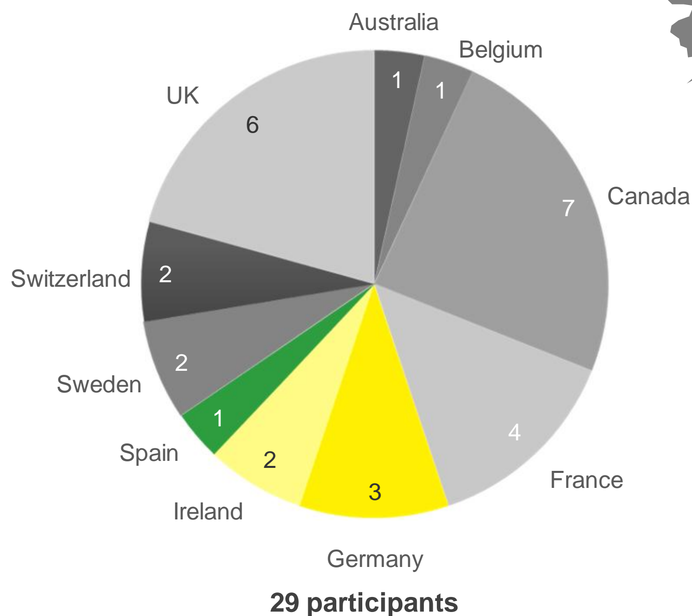
We surveyed 29 top-tier banks worldwide, of which:

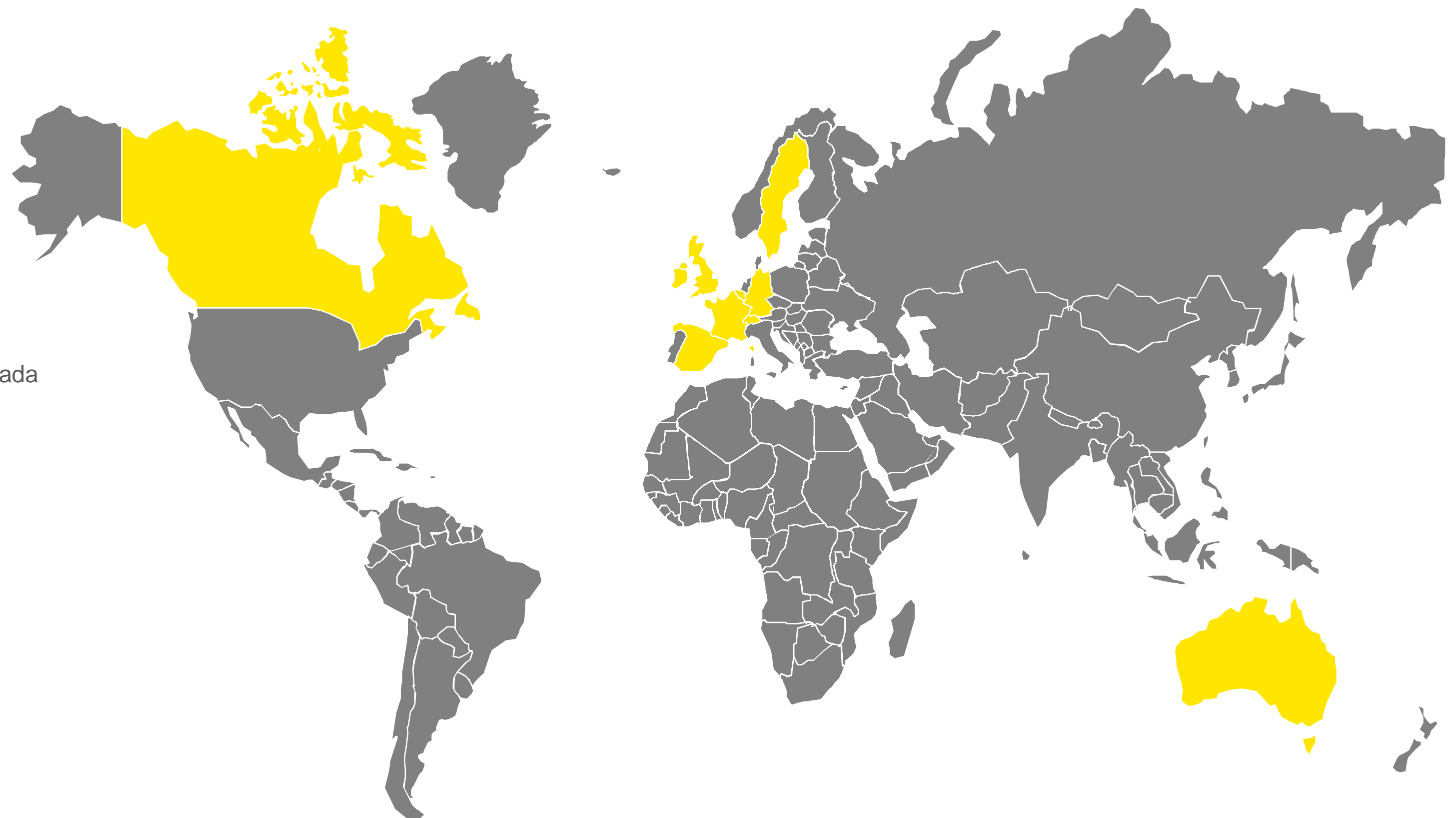
► Fifteen have a balance sheet in excess of €600b; 10 have a balance sheet between €200b and €600b, while the remaining four have a balance sheet of less than €200b.

► Eleven are global systemically important banks (G-SIBs).

► Twelve are under the scope of Sarbanes-Oxley Act (SOX).

► Seventeen use an Advanced Internal-Rating Based approach (A-IRB) for all of their portfolios.





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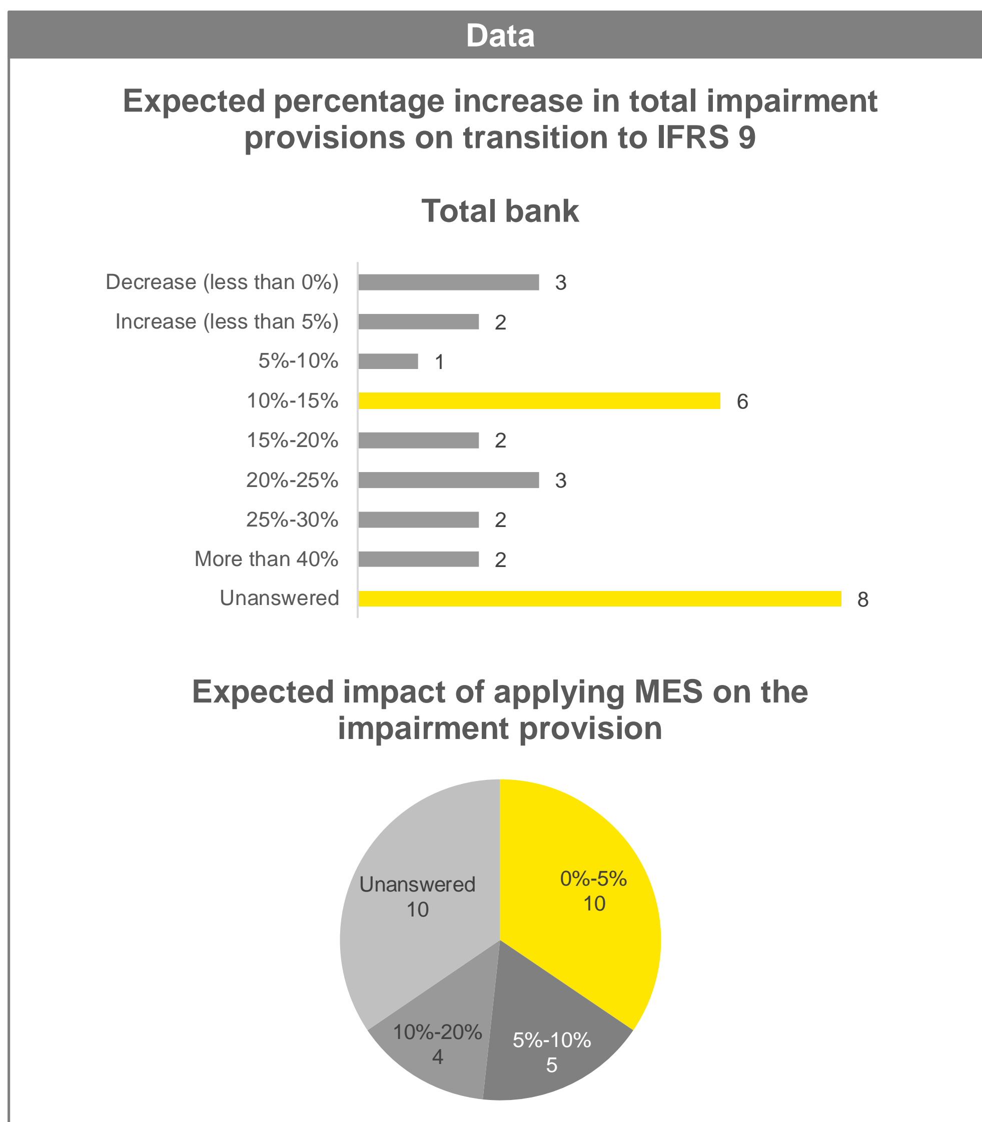
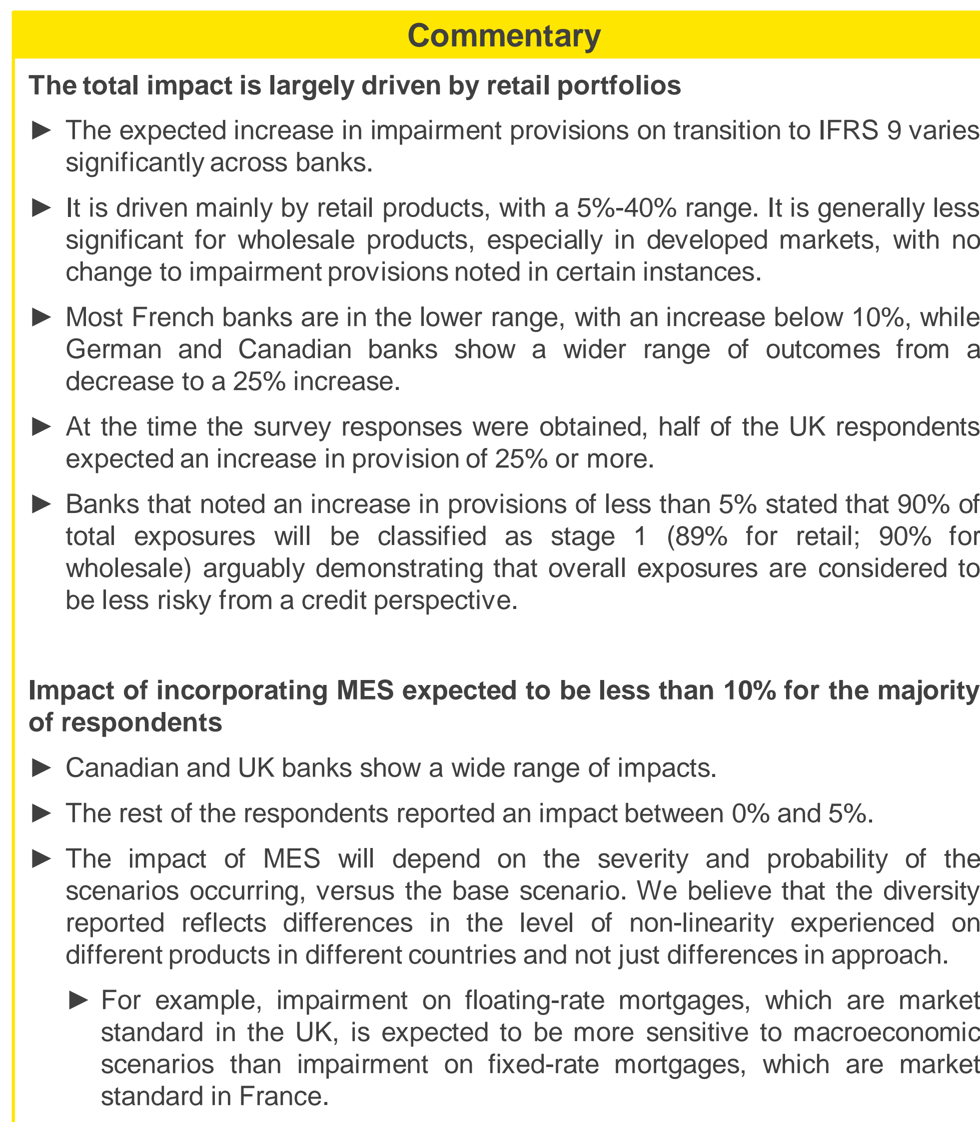
1. Impact assessment – impairment provisions

Expected percentage increase in total impairment provisions on transition to IFRS 9





Commentary

The total impact is largely driven by retail portfolios

- The expected increase in impairment provisions on transition to IFRS 9 varies significantly across banks.
- It is driven mainly by retail products, with a 5%-40% range. It is generally less significant for wholesale products, especially in developed markets, with no change to impairment provisions noted in certain instances.
- Most French banks are in the lower range, with an increase below 10%, while German and Canadian banks show a wider range of outcomes from a decrease to a 25% increase.
- At the time the survey responses were obtained, half of the UK respondents expected an increase in provision of 25% or more.
- Banks that noted an increase in provisions of less than 5% stated that 90% of total exposures will be classified as stage 1 (89% for retail; 90% for wholesale) arguably demonstrating that overall exposures are considered to be less risky from a credit perspective.

Impact of incorporating MES expected to be less than 10% for the majority of respondents

- Canadian and UK banks show a wide range of impacts.
- The rest of the respondents reported an impact between 0% and 5%.
- The impact of MES will depend on the severity and probability of the scenarios occurring, versus the base scenario. We believe that the diversity reported reflects differences in the level of non-linearity experienced on different products in different countries and not just differences in approach.
  - For example, impairment on floating-rate mortgages, which are market standard in the UK, is expected to be more sensitive to macroeconomic scenarios than impairment on fixed-rate mortgages, which are market standard in France.

1. Impact assessment – impairment provisions

Expected percentage increase in total impairment provisions on transition to IFRS 9 (continued)

Data

Commentary

Credit card exposures driving increase in retail provisions

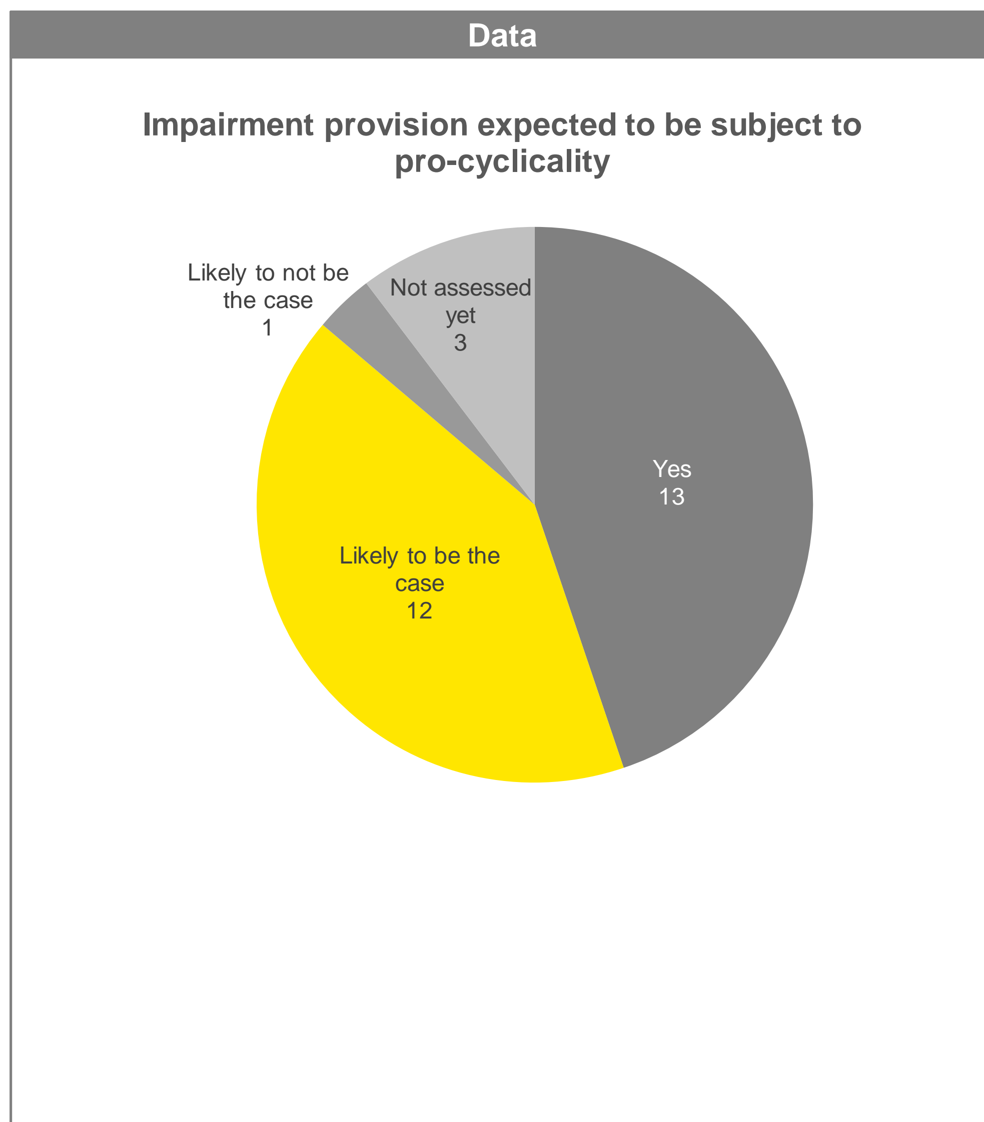
- Retail portfolios will be most impacted by the adoption of IFRS 9, in particular, because of exposures classified as stage 2, and resulting lifetime expected credit loss (ECL) requirements.
- The highest impact has been reported on credit card portfolios, with four banks expecting more than 40% increase in provisions. This is largely due to the requirement to calculate ECL for both the drawn and undrawn exposures.
- Some banks reported a significant impact on unsecured products, especially with the introduction of a 12-month expected loss for stage 1 exposures.
- There is more diversity on the impact of mortgages: four banks expect an increase of 5%-10%; three an increase of more than 40%; one a decrease.

Wholesale impact expected to be less significant

- The expected impact on wholesale portfolios is generally lower than the impact on retail portfolios, with the exception of "central governments and central banks" and "financial institutions", where it appears more significant as they currently attract no, or only small, provisions. However, the absolute impact is expected to be small due to the high quality of these assets.
- The introduction of 12-month ECL for financial instruments that are considered to have low credit risk contributes to the increase in wholesale provisions.
- Some banks noted little change, or even a decrease, in ECL for corporates, primarily resulting from relatively long emergence period used under IAS 39, but also because of very high credit quality or significant collateral. This is more evident for countries where larger collective provisions were being booked on watch list exposures under IAS 39.
- Some corporate assets were also reclassified to fair value through profit and loss, which are not subject to credit impairment.

1. Impact assessment – pro-cyclicality
Impairment provision and pro-cyclicality

Data



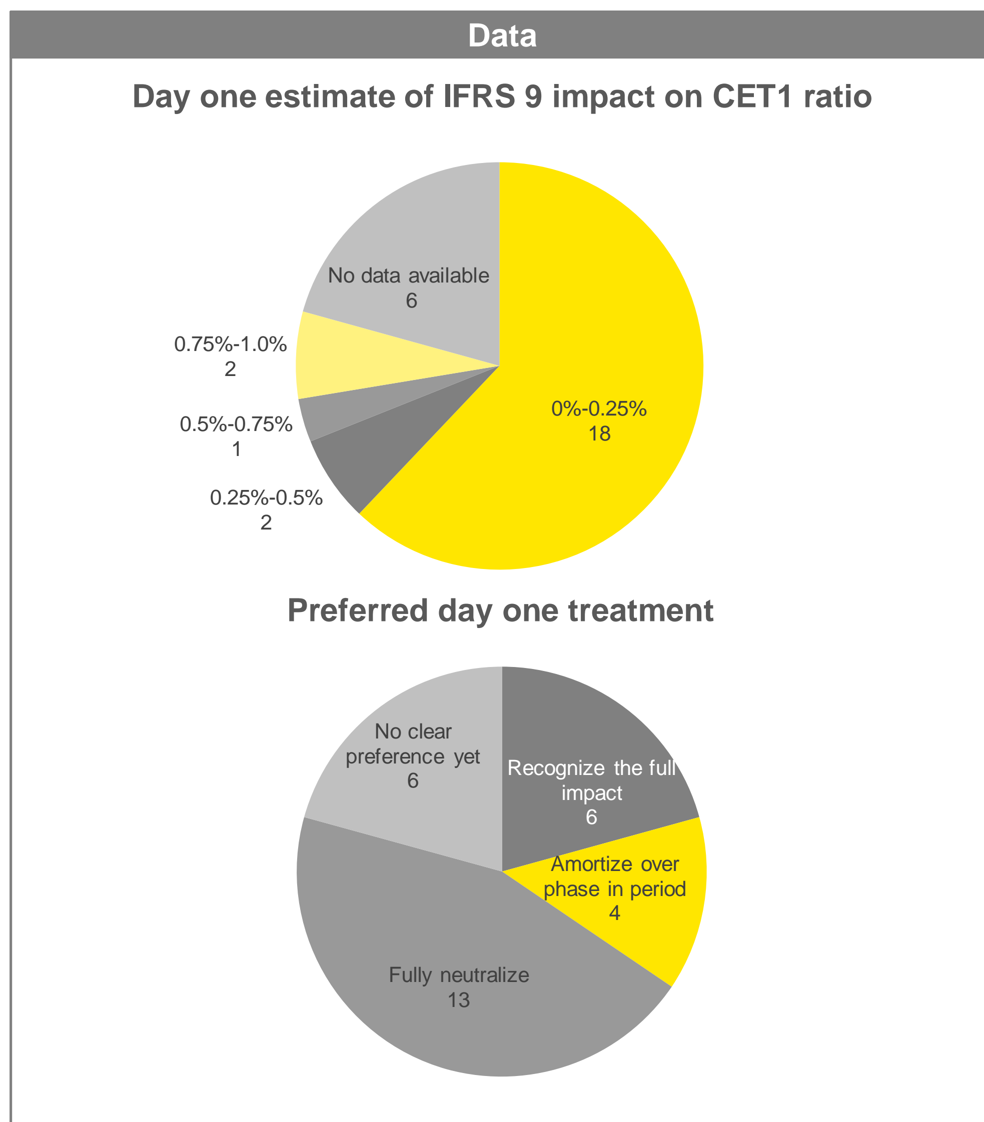
Commentary

Impairment provision and pro-cyclicality

- The majority of banks anticipate that the IFRS 9 ECL provisions will be subject to pro-cyclicality through adjusting forward-looking information, macro economic scenarios and probability weightings of those scenarios.
- **Most respondents noted that they have not yet assessed the potential drivers of pro-cyclicality**. Other banks have identified the following key drivers of pro-cyclicality:
  - The use of Point-in-Time (PiT) measures
  - The incorporation of forward-looking information, especially in the case of an economic downturn, which can be amplified by the non-linearity of the distribution of losses
- Below are extracts from responses for illustrative purposes:
  - "Pro-cyclicality has been viewed as a function of lifetime loss estimates and economic forecasts. Since IFRS 9 requires the estimate of ECL to be PiT, model outputs will be sensitive to peaks and troughs in the economic cycle. We expect the effects to be more pronounced for longer-dated portfolios."
  - "We are in the process of undertaking analysis to understand how our IFRS 9 provisions will vary under different economic assumptions. Due to the dependency on completion of the model build before carrying out the analysis, this work is still at an early stage."

1. Impact assessment – capital
CET1 ratio and preferred day one treatment

Data



Commentary

Day one estimate of IFRS 9 impact on CET1 ratio mostly 0%-0.25%

- ► There is less divergence in the responses on CET1 ratio impact than on provisions, because of the excess expected loss currently deducted from CET1 under IAS 39 offsetting part of the increase for IRB portfolios.
- ► Banks within the range of 0.75%-1.0% expect a higher increase in the ECL compared with the current IAS 39 provisions.

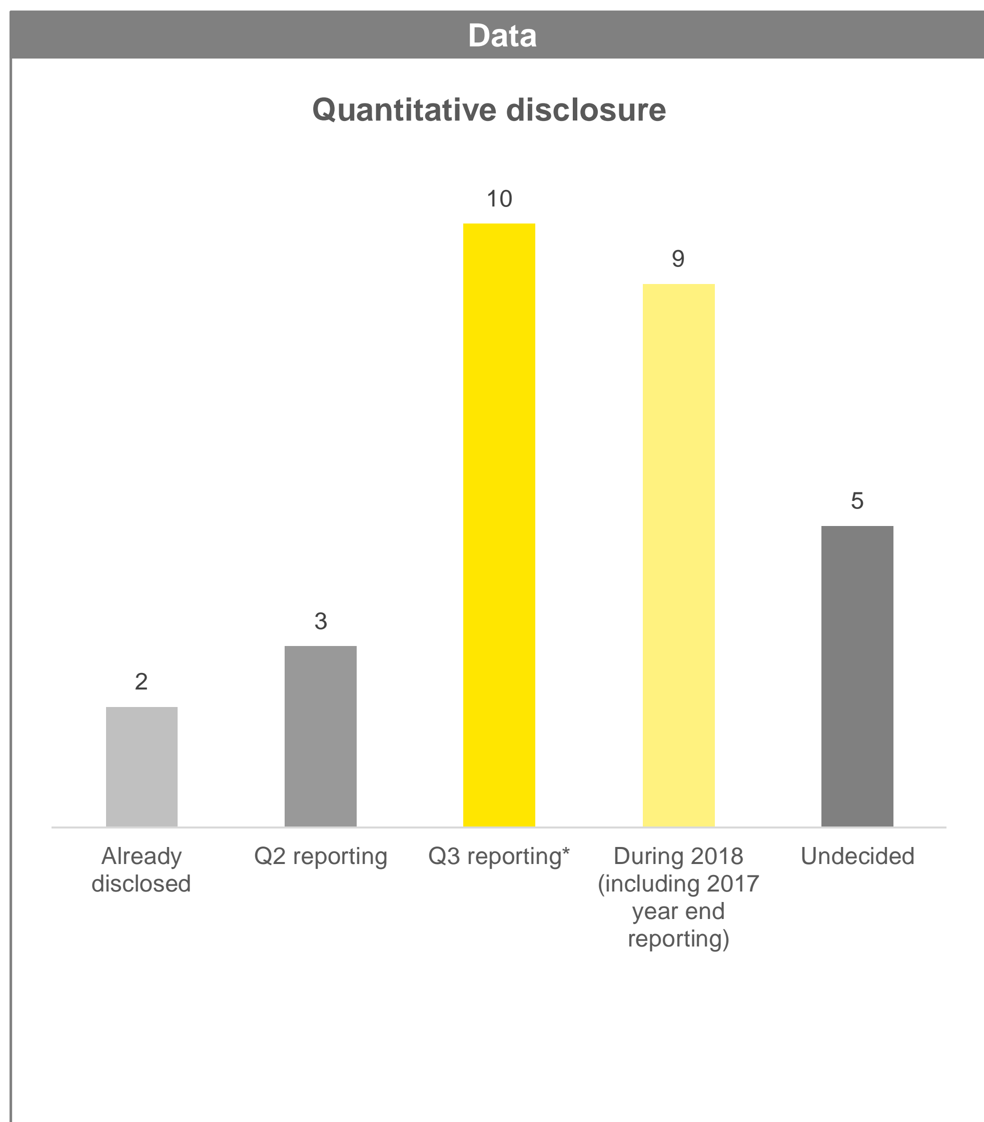
Preferred day one treatment

- ► The recent Basel Committee on Banking Supervision (BCBS) standard[1] provides jurisdictions with the freedom either to implement a transitional approach or to recognise the full impact on day one. However, it does not permit neutralisation.
- ► As the BCBS principles on the capital treatment were not available at the time of our survey, the majority of respondents indicated a preference for the neutralization of the impact as opposed to a periodic amortisation approach.
- ► Several respondents expressed a wish that the long-term treatment is finalized before the impact on capital is crystallized. The potential impact of IFRS 9 on regulatory stress testing was also raised by respondents.
- ► Some respondents were concerned about the implementation date difference between IFRS 9 and the US GAAP current expected credit loss (CECL) standard.
- ► Some banks reported they would prefer to recognize the full impact of IFRS 9 on capital on day one, because:
  - ► They anticipate a minimal impact on capital.
  - ► They will have to disclose the fully front loaded capital impact in any case.
  - ► This would avoid making the regulatory capital calculation more complex.
- ► The participants favoring a transitional amortization approach generally noted it could help smooth out any potential volatility in capital requirements.
- ► Note: The recently published draft European Council regulation[2] would permit a bank to amend its initial decision, subject to permission.

[1] "Publications," *Bank for International Settlements website*, www.bis.org/bcbs/publ/d401.pdf, accessed 21 August 2017.
[2] "Publications," *European Council website*, http://data.consilium.europa.eu/doc/document/ST-9480-2017-INIT/en/pdf, accessed 21 August 2017.

1. Impact assessment – disclosures

Disclosure of the potential impact of applying IFRS 9 impairment



*Year end reporting for Canadian banks

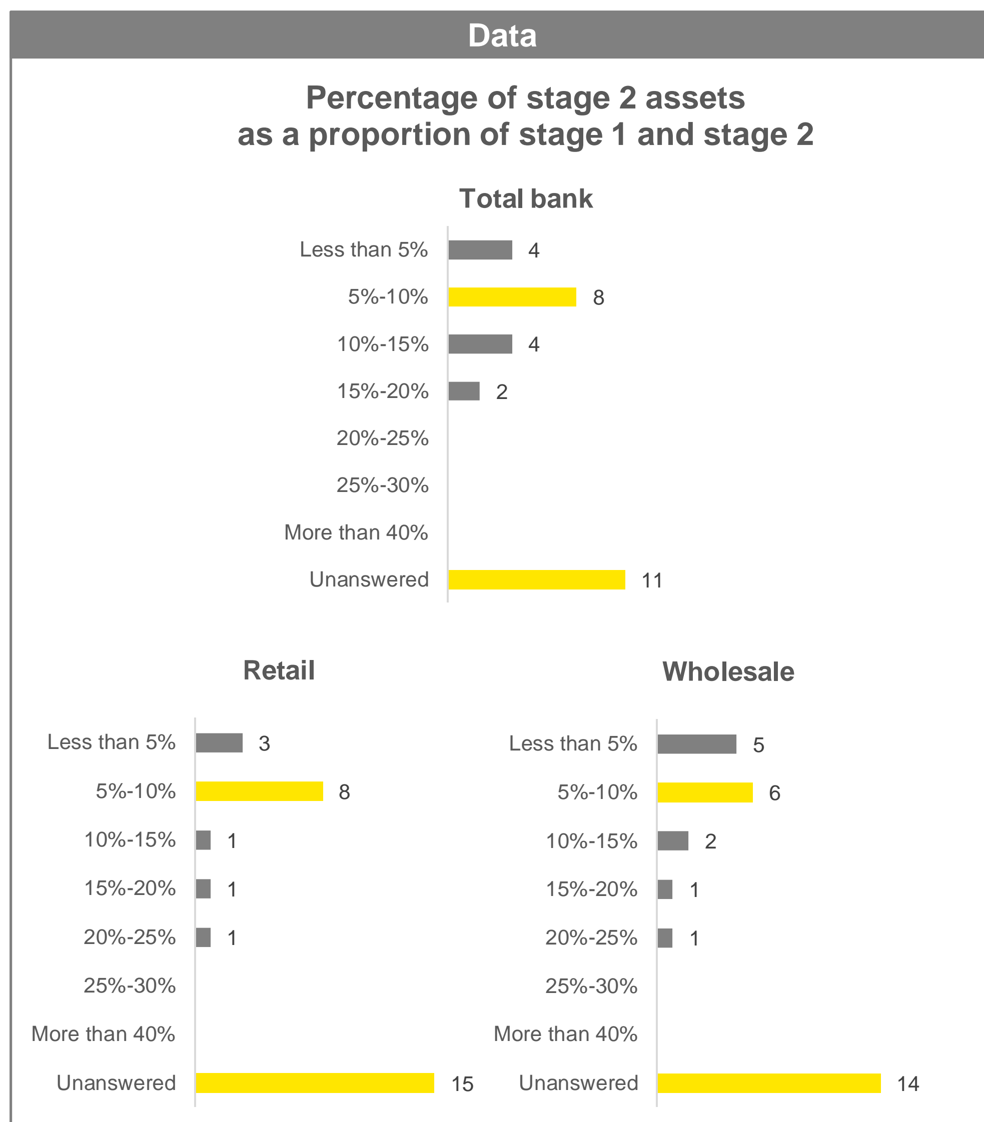
Commentary

Most banks plan to wait until year end to disclose the expected impact

- By May 2017, when data was collected for purposes of the survey, only two banks, one is an early adopter, have made public disclosure of the expected impact of IFRS 9.
- Of the banks that expect to publish disclosures as part of the third-quarter reporting, the majority are Canadian with October reporting year ends, which suggests that most banks surveyed are waiting for their next financial statements to disclose the expected impact of IFRS 9. This may include reporting outside of periodic financial reporting, e.g., press releases.
- These results are similar to the findings in our last survey, except that fewer banks remain undecided and amended their answer to state that, as part of the "2017 year end reporting."
  - Our expectation was that there would have been more disclosures during 2017 and less waiting until year end 2017 or the beginning of 2018.
  - We believe this discrepancy with our initial expectations is because of the parallel runs generally starting later than expected, which result in **numbers not being deemed reliable enough for public disclosures.**

1. Impact assessment – stage allocation
Exposure analysis on transition to IFRS 9

Data



Commentary

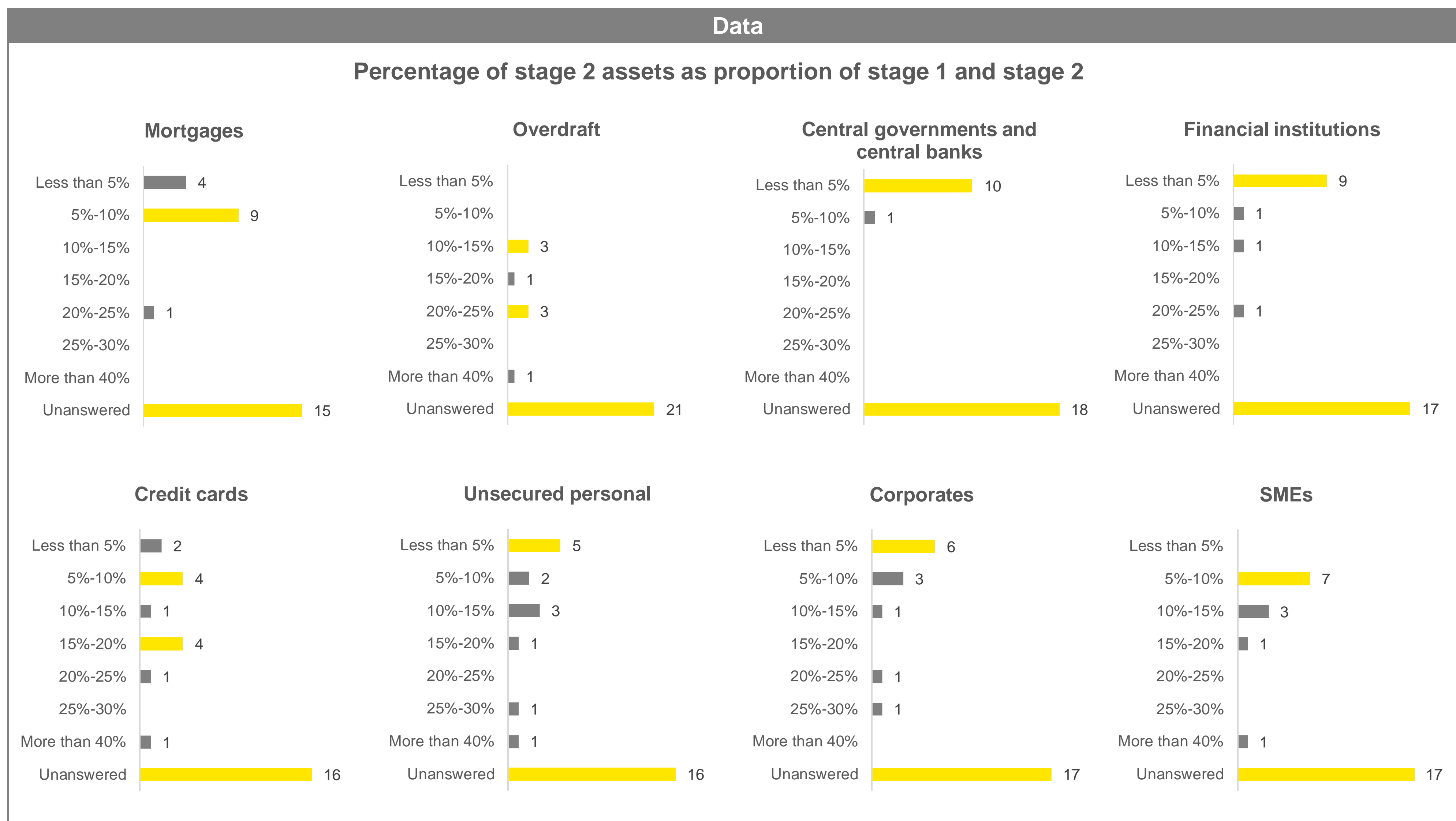
Most exposures at transition are expected to be in stage 1

- **Approximately 90% of all exposure types will be classified as stage 1** with the remainder of exposures split 7.5% for stage 2 and 2.5% for stage 3 assets, with very few exposures classified as purchased or originated credit impaired (POCI).
- This applies to both retail and wholesale exposures, and across all asset classes, and will most notably be the case for exposures to central governments, central banks and financial institutions.
- Overdrafts, credit cards and small and medium enterprises* (SMEs) comprise the largest proportion of stage 2 assets in the good book (stage 1 and 2), being on average 20.7%, 13.1% and 11.8% respectively.

Stage 2 as a proportion of stage 1 and stage 2 (in percentage)	Average	Minimum	Maximum
Mortgages	6.3%	0.8%	21.0%
Credit cards and other	**13.1%**	**0.0%**	**35.4%**
Unsecured personal	**11.7%**	**1.0%**	**42.9%**
Overdrafts	**20.7%**	**10.1%**	**42.9%**
Asset finance	6.6%	3.3%	10.2%
Central governments and central banks	0.9%	0.0%	6.1%
Financial institutions	3.7%	0.0%	22.0%
Corporates	8.5%	2.0%	29.9%
SMEs	**11.8%**	**5.1%**	**42.0%**

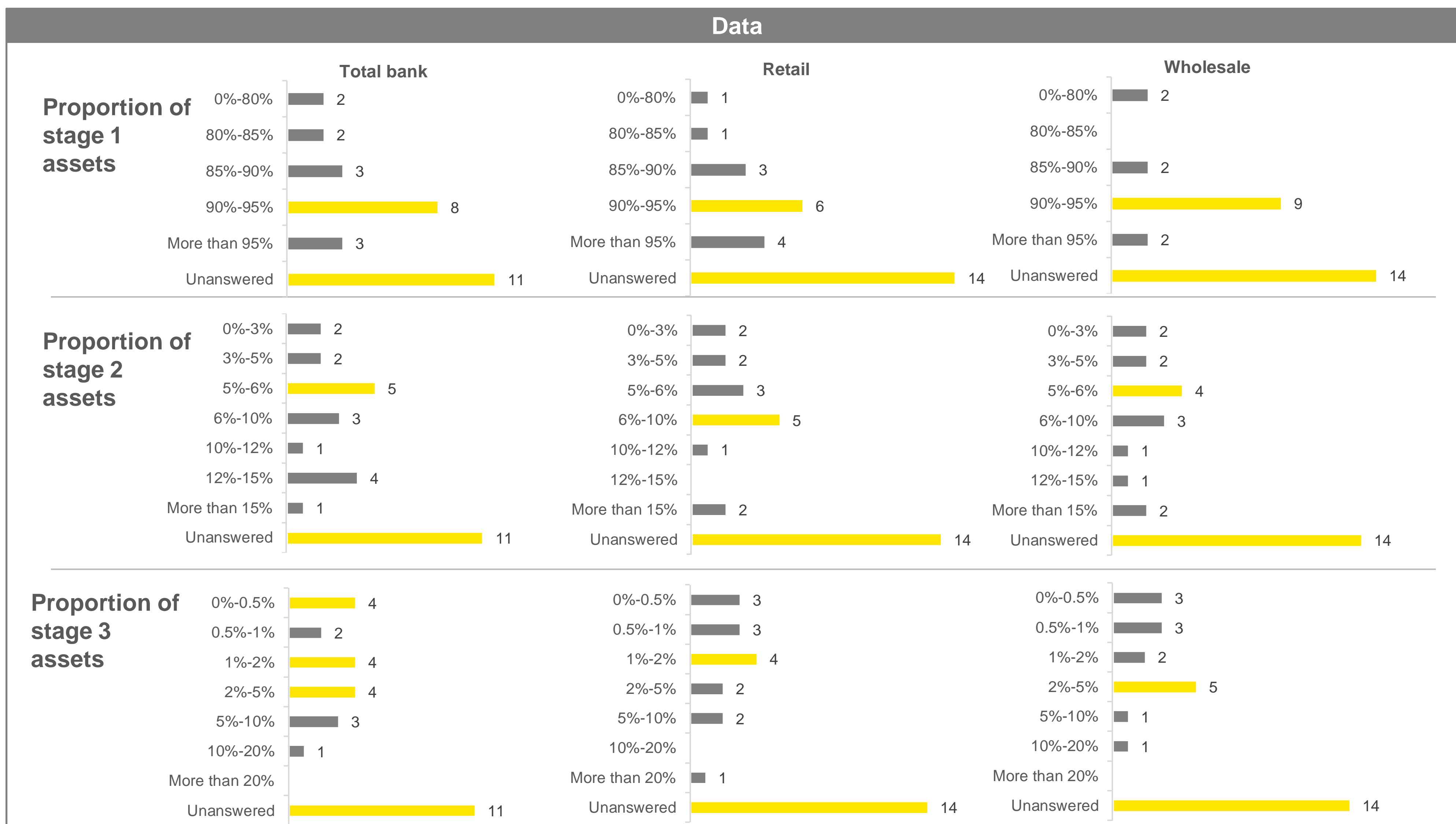
*The definition of SME is based on the regulatory definition of small medium enterprises, whose criteria may differ by country. For the purposes of the survey, it is included within wholesale.

1. Impact assessment – stage allocation
Exposure analysis on transition to IFRS 9 (continued)



1. Impact assessment – stage allocation

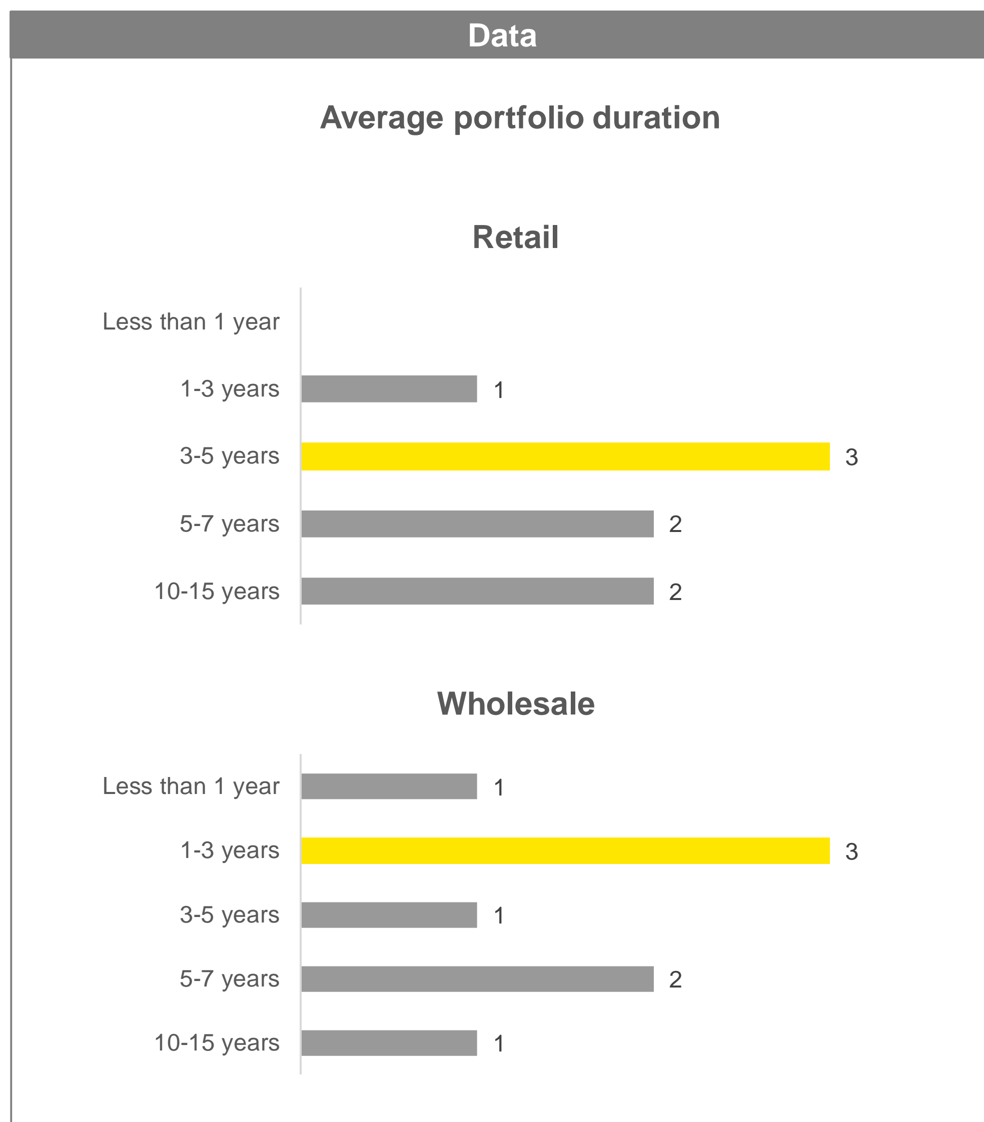
Exposure analysis on transition to IFRS 9 (continued)



1. Impact assessment – stage allocation

Duration analysis on transition to IFRS 9

Data



Commentary

Average duration

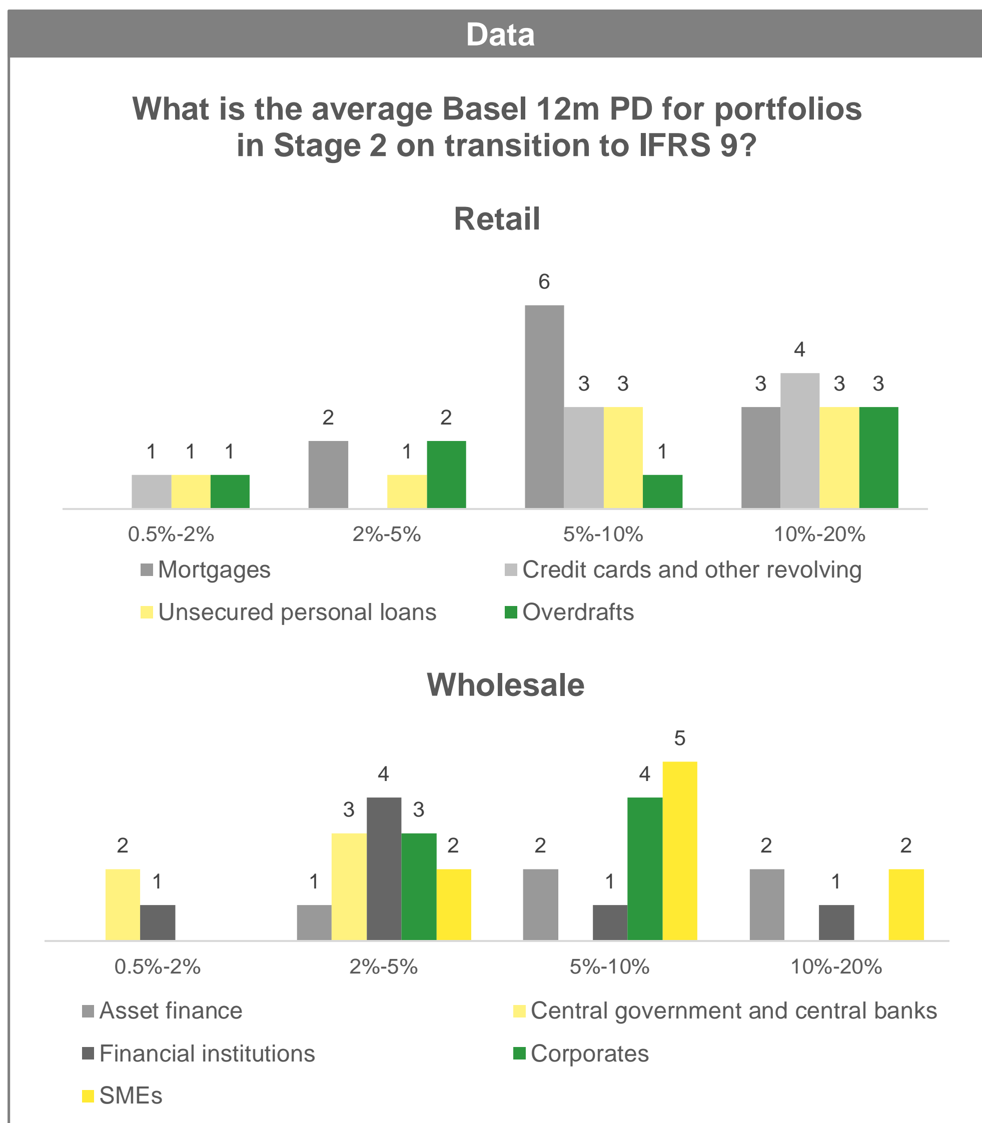
- **Most financial institutions expect duration to be the main driver of IFRS 9's impact on provisions**, as lifetime expected credit loss is larger for longer products.
- In addition, large differences would be expected across countries showing different market practices, which should be taken into account by users when comparing banks and interpreting IFRS 9 impacts.
- Most banks were unable to determine the average duration for different assets classes across retail and wholesale exposures, making a meaningful geographical analysis impossible. The following apply to the banks that have been able to supply data:
  - Banks' exposures mainly have an average duration range of three to five years for retail exposures. For wholesale, the one to three years average is driven by exposures to SMEs, which generally have a duration of less than five years.
  - **For mortgages, the average duration is three to five years. This is shorter than we expected** and may be because of amortization or prepayments, which have been significant in some countries in recent years because of the decrease in interest rates. In addition, open rolling portfolios have a shorter maturity compared with contractual maturity.
  - Exposures with an average duration of less than one year relate mostly to overdrafts and exposures to central governments and central banks.

*For the purpose of this question, we define average portfolio duration as the average life in which the bank would incur a loss.

1. Impact assessment – stage allocation

Basel 12-month Probability of Default (PD) analysis for stage 2 exposures on transition to IFRS 9

Data



Commentary

Basel 12-month PDs in stage 2 on transition

- The average Basel 12-month PD for assets in stage 2 is a simple risk measure to compare the average level of risk sitting within this bucket across banks.
- Five banks decided not to disclose this metric and others decided to disclose the values only for certain asset classes.
- Banks that have supplied data generally noted an average of 5%-10% for wholesale exposures. There is divergence in retail exposures with a wide range of 2%-20%.
- An interesting trend can be seen **for mortgages, suggesting that most institutions have similar risks within their stage 2 portfolio.** Other products show more variance in the PDs and therefore different levels of risks.
- Wholesale shows interesting trends of PDs: lower than 5% for central governments and central banks and financial institutions, suggesting that these exposures are generally subject to classification into stage 2 despite their higher quality.
- SME exposures generally show greater levels of PDs (between 5% and 10%), while corporates are more spread between 2% and 10%.

2. IFRS 9 project status
Progress on 2017 planned parallel runs

Commentary

Delays with originally planned parallel runs

- For the purposes of this survey, we have defined a parallel run as the testing of the end-to-end impairment process that includes a live calculation of IFRS 9 estimated ECL in parallel with the IAS 39 impairment calculation.
- Most banks originally planned to commence parallel runs starting in the first quarter of 2017.
- A limited number of banks were able to commence parallel runs during the first half of 2017. The majority of banks shifted their planned parallel runs to the second half of 2017, with numerous banks planning their parallel runs as late as the fourth quarter of 2017. One bank will start their parallel run in July for wholesale and in October for retail exposures.
- This was largely driven by delays in model build, finalization of technical interpretations and a general challenge with regard to the availability of data.
- A limited number of banks will not perform parallel runs.
- Some banks will perform monthly parallel runs in arrears to the calendar months and will only complete parallel runs with a reduced scope, i.e., the IFRS 9 ECL number will be calculated but will not incorporate journals or disclosures. However, these numbers might be used for submissions to the regulators by two of the respondents. One bank stated that they are undertaking a dry run of its end-to-end technical solution rather than a parallel run on live systems.

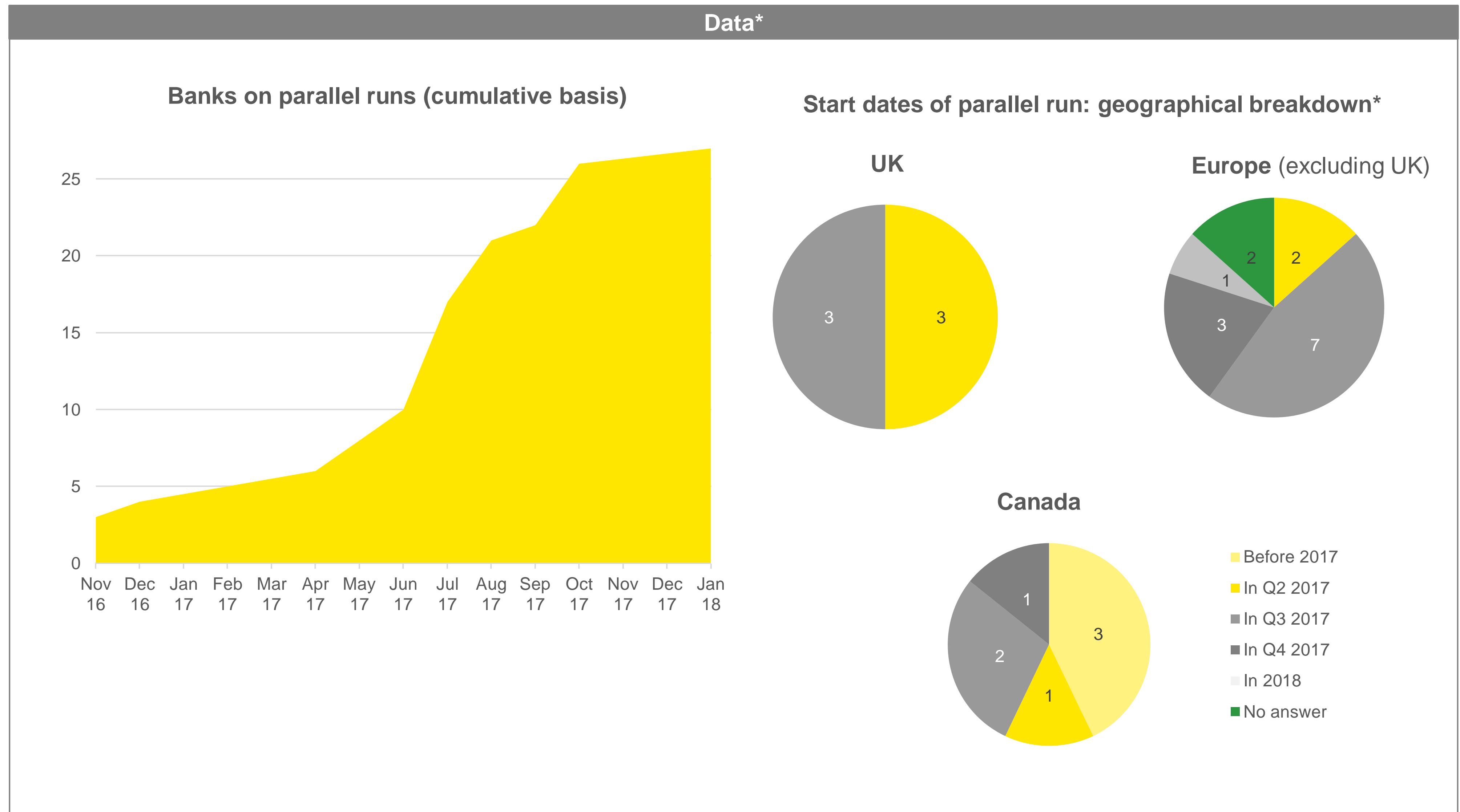
The frequency of parallel runs

- **Seventeen banks that are planning parallel runs for 2017 intend to perform monthly reporting runs** in order to effectively test back-to-back execution of the monthly operating cycles, with a significant trend for UK banks that are planning monthly parallel runs. One bank noted that the frequency may be reduced depending on the need for remediation efforts.
- Eight banks intend to do quarterly parallel runs and four less frequently. Of these 12 banks, four are Canadian; while the rest are European, including four located in France and one in the UK.

Incorporation of classification and measurement in parallel runs

- Nineteen banks will incorporate the classification and measurement (C&M) elements of IFRS 9 in their parallel runs. Most of these banks intend to apply the requirements using a phased approach - starting with smaller portfolios and growing in scope to incorporate the entire group.
- Broadly, **most banks do not anticipate that the incorporation of C&M** will have a significant impact on parallel runs and some will run manual processes or rely on one-to-one mapping between IAS 39 and IFRS 9 measurement categories. In certain instances, **we believe this approach may underestimate the impact of C&M requirements**, which drives the exposures subject to impairment.
- Banks which do not intend to include C&M in their parallel runs plan to run simulations or dry runs instead. The number of runs that will be performed will be subject to further assessments by the banks.

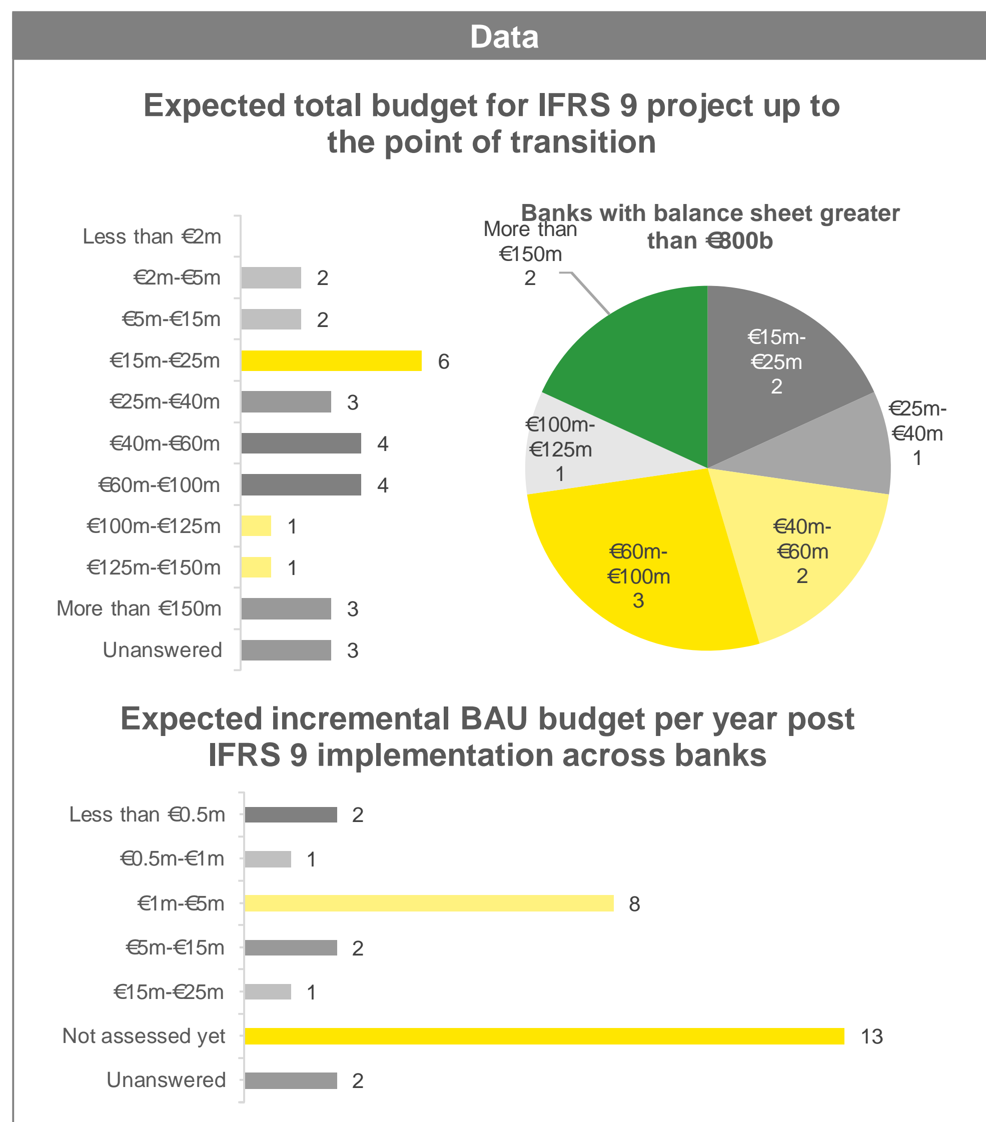
2. IFRS 9 project status
Progress on 2017 planned parallel runs (continued)

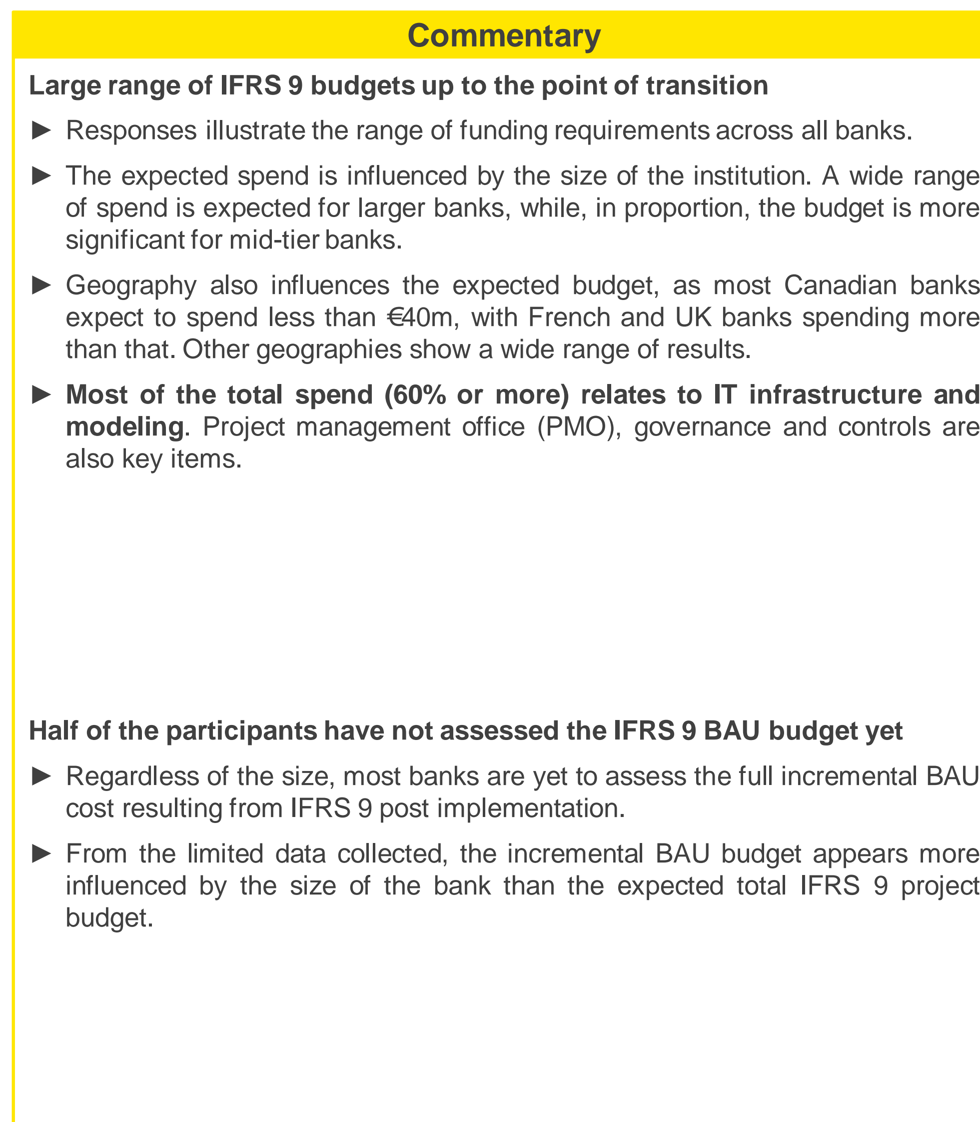


* Data collected from the Australian banks have been excluded in the geographical breakdown to keep confidentiality because of the low number of participants. Furthermore, early adopters and the count of unanswered have been removed from the cumulative count.

2. IFRS 9 project status

Point of transition and incremental business as usual (BAU) budget





Commentary

Large range of IFRS 9 budgets up to the point of transition

- Responses illustrate the range of funding requirements across all banks.
- The expected spend is influenced by the size of the institution. A wide range of spend is expected for larger banks, while, in proportion, the budget is more significant for mid-tier banks.
- Geography also influences the expected budget, as most Canadian banks expect to spend less than €40m, with French and UK banks spending more than that. Other geographies show a wide range of results.
- **Most of the total spend (60% or more) relates to IT infrastructure and modeling**. Project management office (PMO), governance and controls are also key items.

Half of the participants have not assessed the IFRS 9 BAU budget yet

- Regardless of the size, most banks are yet to assess the full incremental BAU cost resulting from IFRS 9 post implementation.
- From the limited data collected, the incremental BAU budget appears more influenced by the size of the bank than the expected total IFRS 9 project budget.

3. Operating model

Development of target operating model

Commentary

Development of target operating model for IFRS 9

- IFRS 9 represents a large-scale transformational change for financial institutions. Successful implementations will involve fundamental changes across finance, risk, treasury and front-line business activity.
- A key success factor continues to be business readiness and many implementation programs have established dedicated work streams to assess and plan for changes across the following components:
  - People: This includes the definition of roles and responsibilities, and upskilling through training.
  - Processes: New end-to-end processes need to be designed and documented, including interdependencies across functions.
  - Internal controls: This includes changes to internal control design. For Securities and Exchange Commission (SEC) registrants, there is significant work to demonstrate SOX compliance. Risk data will now be used for financial reporting purposes and, therefore, controls are subject to increased scrutiny from external auditors and regulators.
  - Data: This includes sourcing and integration of new data requirements, reconciliation of finance and risk data. Some institutions are using IFRS 9 as a business case to support the creation of "golden source" data warehouses in conjunction with regulatory change drivers.
  - Governance: This includes the need for senior management to oversee and govern IFRS 9 is resulting in changes to committee structures across the "three lines of defence". Frequent interactions with the board of directors, audit committees and other senior forums are important during implementation and BAU with clear decision-making criteria and protocols.
  - IT systems: This includes large-scale IT infrastructure changes, including the integration of new credit models into calculation engines. Complex calculations need to be performed leveraging large volumes of new data. Many banks are implementing shorter-term tactical changes for transition with longer-term investments in strategic solutions.
  - Reporting: In addition to the new external reporting requirements, institutions have redesigned internal KPI's and management information (MI) to support decision-making and assess performance.
- The survey has focused on elements of the ECL calculation and staging, such as modeling platforms, frequency of calculation, sourcing of underlying data, KPI's and broader governance considerations.

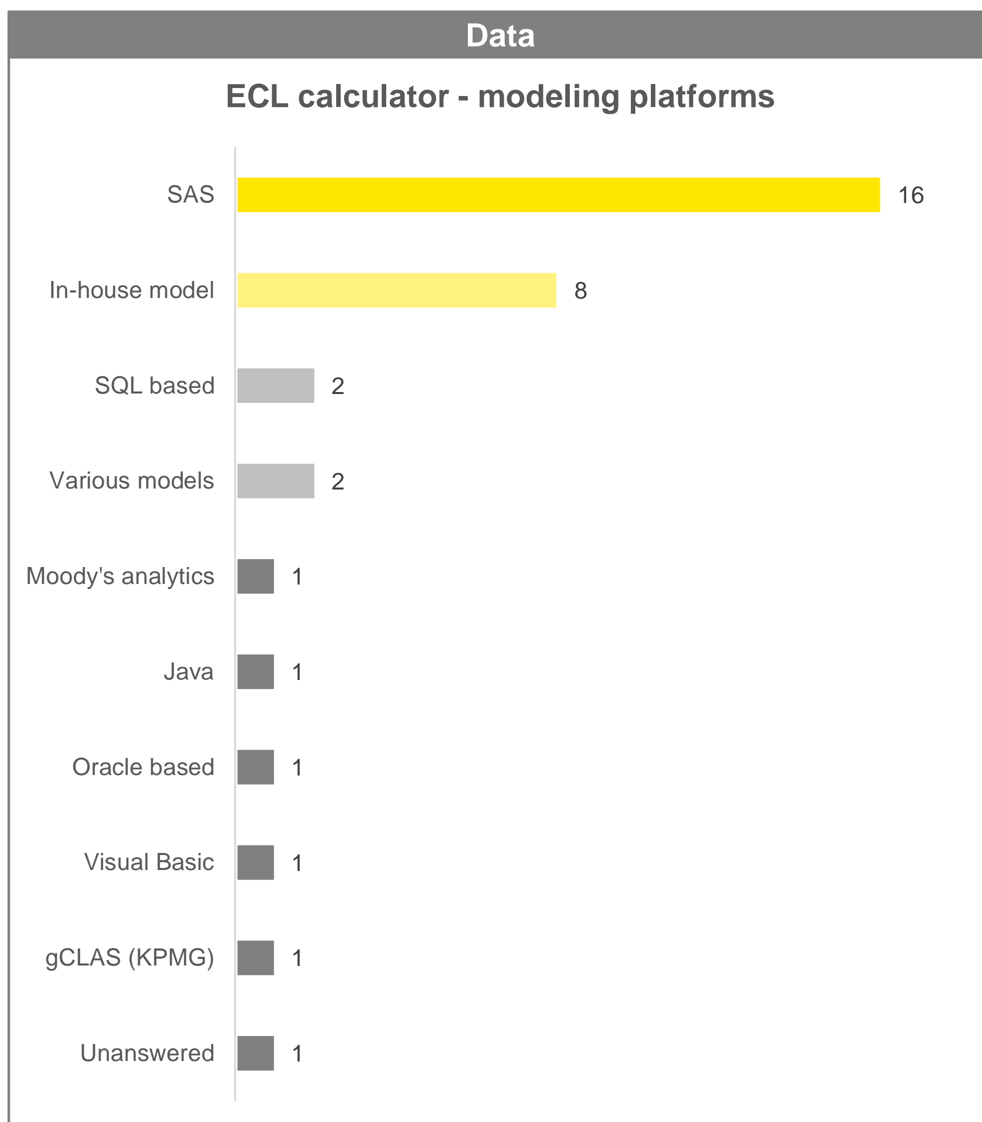
Use of KPIs in the significant increase in credit risk assessment remains relatively undecided

- Most of the responses received indicate that KPIs which will be used for the significant increase in credit risk assessment are still largely undecided.
- Those that did provide KPIs ranged from the sole use of 30 days past due (DPD) to other quantitative factors, such as cure rates between stages and coverage ratios for each stage. One of the more common qualitative factors was monitoring the volatility between stages when a new classification is triggered by watchlists and forbearance measure.

3. Operating model

Modeling platform to be used in ECL calculator

Data



Commentary

Majority of respondents intend to use SAS as their modeling platform

- ► The majority of respondents have indicated that they will be using one or a combination of external vendors, such as SAS, to build ECL calculators. These are mainly Canadian, UK and Irish institutions. This is primarily to expand functionality offered from existing infrastructure.
- ► Eight participants (French, Swiss, on Canadian and one UK bank) are intending to use internally developed platforms.
- ► Extensive work has been required to integrate the calculator into the monthly general ledger close process and semiannual or quarterly financial statement close process.

3. Operating model

Frequency of the BAU IFRS 9 impairment process

Data

ECL calculation and staging assessment

Frequency	ECL calculation	Staging assessment	ECL calculation with full governance	Re-assessment of significance thresholds
Monthly	22	22	5	-
Quarterly	7	7	22	2
Semiannually	-	-	-	-
Annually	-	-	1	18
Other	-	-	-	9
Unanswered	-	-	1	-

Economic scenarios and significance thresholds

Frequency	Refresh of base case economic scenario	Refresh of alternative economic scenarios	Refresh of probability weights
Monthly	2	-	-
Quarterly	20	16	16
Semiannually	5	5	5
Annually	1	3	3
Other	1	5	5

Retail and wholesale ratings, PDs and LGDs

Frequency	Update of retail ratings and PDs	Update of wholesale ratings and PDs	Update of retail LGDs	Update of wholesale LGDs
Monthly	15	9	12	6
Quarterly	7	7	8	6
Semiannually	1	1	2	2
Annually	3	11	6	11
Other	3	1	1	3
Unanswered	-	-	-	1

Commentary

ECL calculations performed monthly, but full governance process quarterly

- Responses show strong consistency across all banks in the frequency of main processes.
- Twenty-two banks indicated that the ECL calculation and staging assessment will be performed on a monthly basis. However, the ECL calculation subject to full governance (e.g., approval through respective three lines of defence) will largely be performed on a quarterly basis. This is consistent with the existing frequency of impairment review meetings under IAS 39.

Economic scenarios refresh quarterly

- A refresh of the base case and alternative economic scenarios as well as the associated probability weights will be performed on a quarterly basis. More frequent refreshes may result in unnecessary delay for little added benefit.

Staging thresholds revisited annually

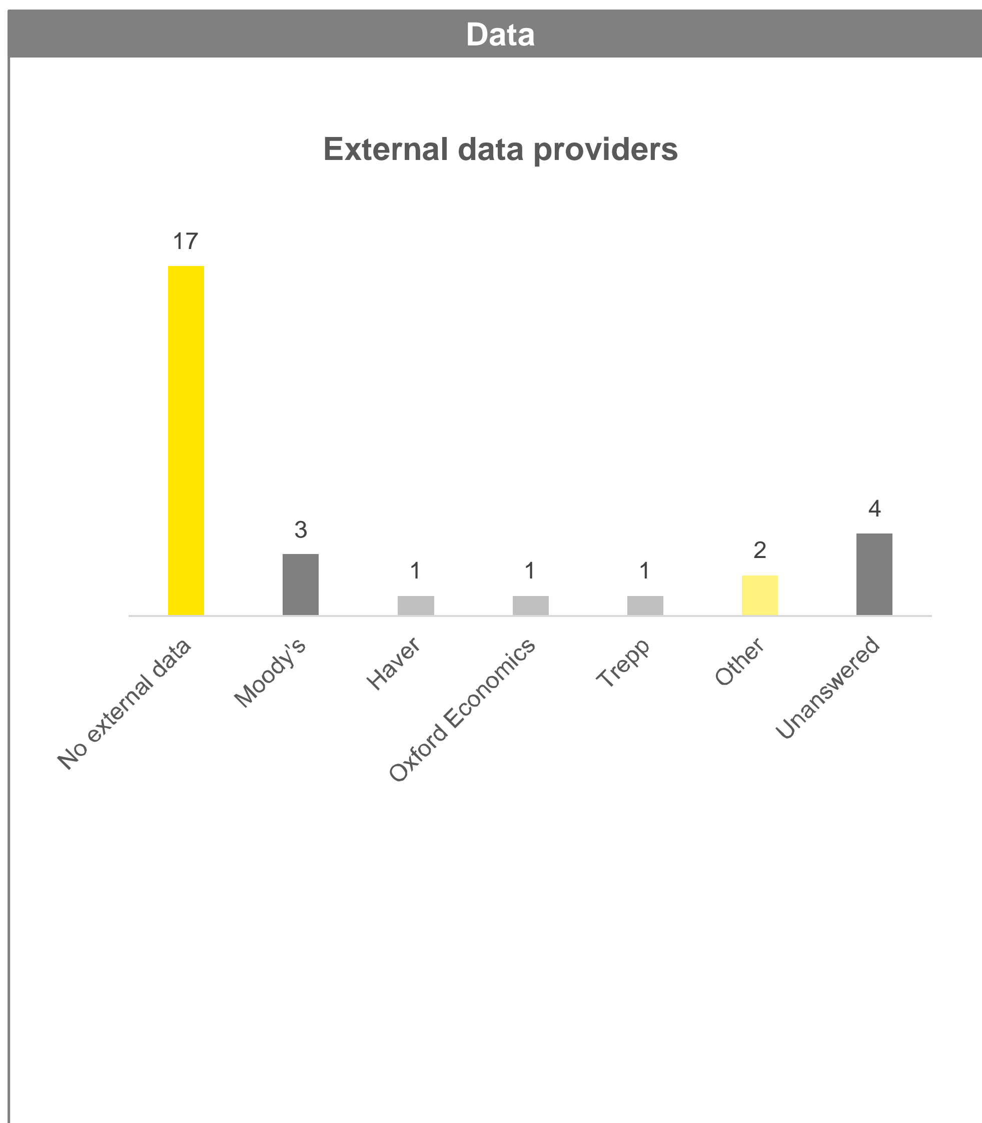
- More than half of the participants indicated that they will look to reassess the appropriateness of the staging thresholds on an annual basis.
- Some respondents indicated that this will be subject to robust governance, sensitivity analysis and will be portfolio specific.

Frequency of parameter refreshes largely driven by the existing credit rating and credit review process

- Retail ratings, PDs and loss given defaults (LGDs) are mostly updated on monthly basis.
- Wholesale parameters will largely be updated on an annual basis, in line with the credit review cycle, with ad hoc re-rating as new information of the borrower's financial situation comes to light.
- A number of banks reported that, in addition to this, IFRS 9 PDs and LGDs will be updated on a monthly or quarterly basis to incorporate information available and required under IFRS 9 (such as macroeconomic scenario scalers).

3. Operating model
IFRS 9 incremental data to be sourced externally

Data



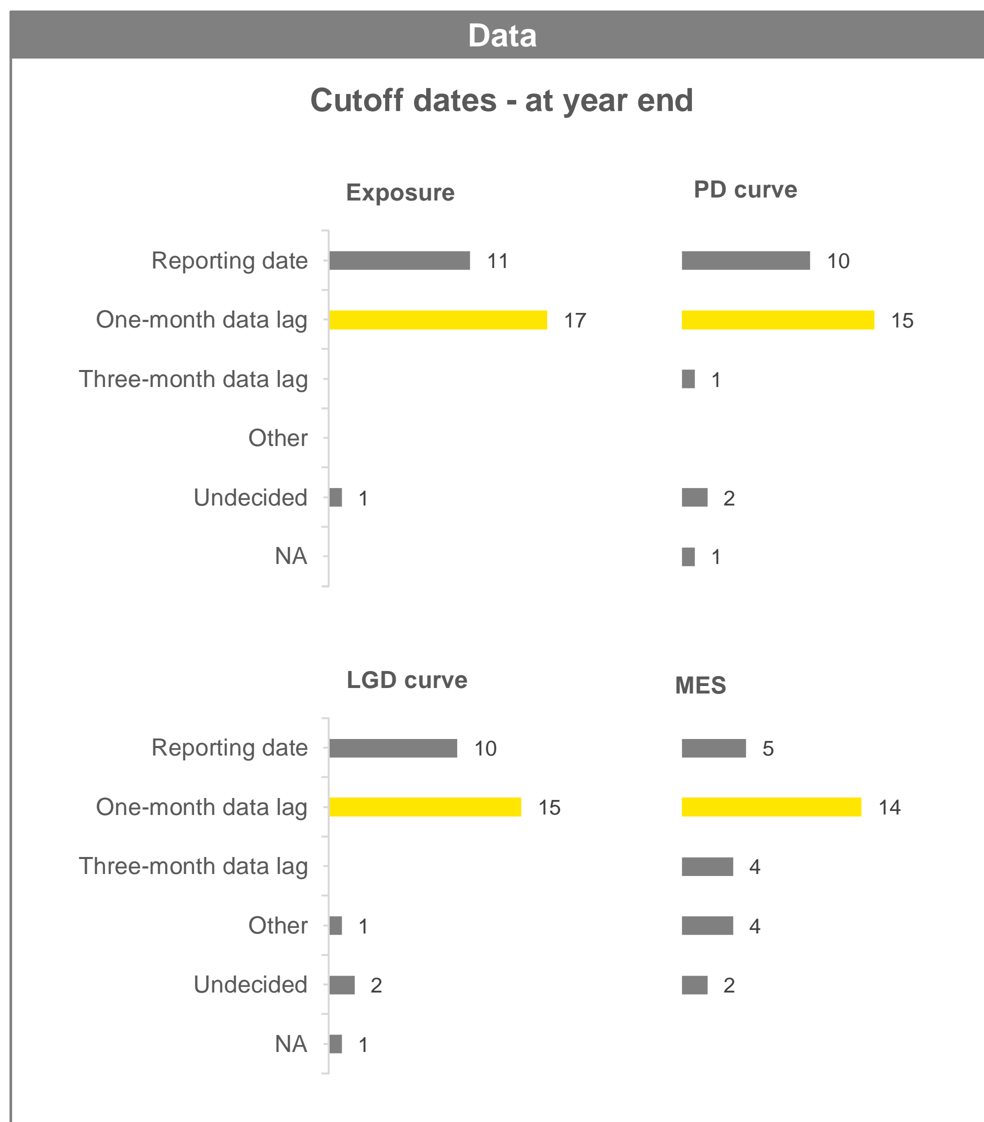
Commentary

IFRS 9 incremental data to be sourced externally

- The majority of respondents do not, at present, intend to purchase data from external sources.
- Eight banks indicated that they do intend to purchase external economic data from Moody's (or other providers) to support the modeling of their ECLs for non-retail portfolios, sovereigns, financial institutions, corporate real estate and asset-backed securities.
- For retail exposures, a few UK respondents mentioned the use of bureau data, which they are already using for IAS 39 purposes. We would expect that more banks already use bureau data when available, but did not report it as the data is not newly acquired for IFRS 9 purposes.
- A few banks also mentioned using external data to source multiple economic scenarios. Many banks already purchase similar economic data today.
- **We expect the use of external data will be increasingly more common among the smaller- and mid-tier-sized institutions** who may need bureau or economic data.

3. Operating model
Cutoff dates

Data



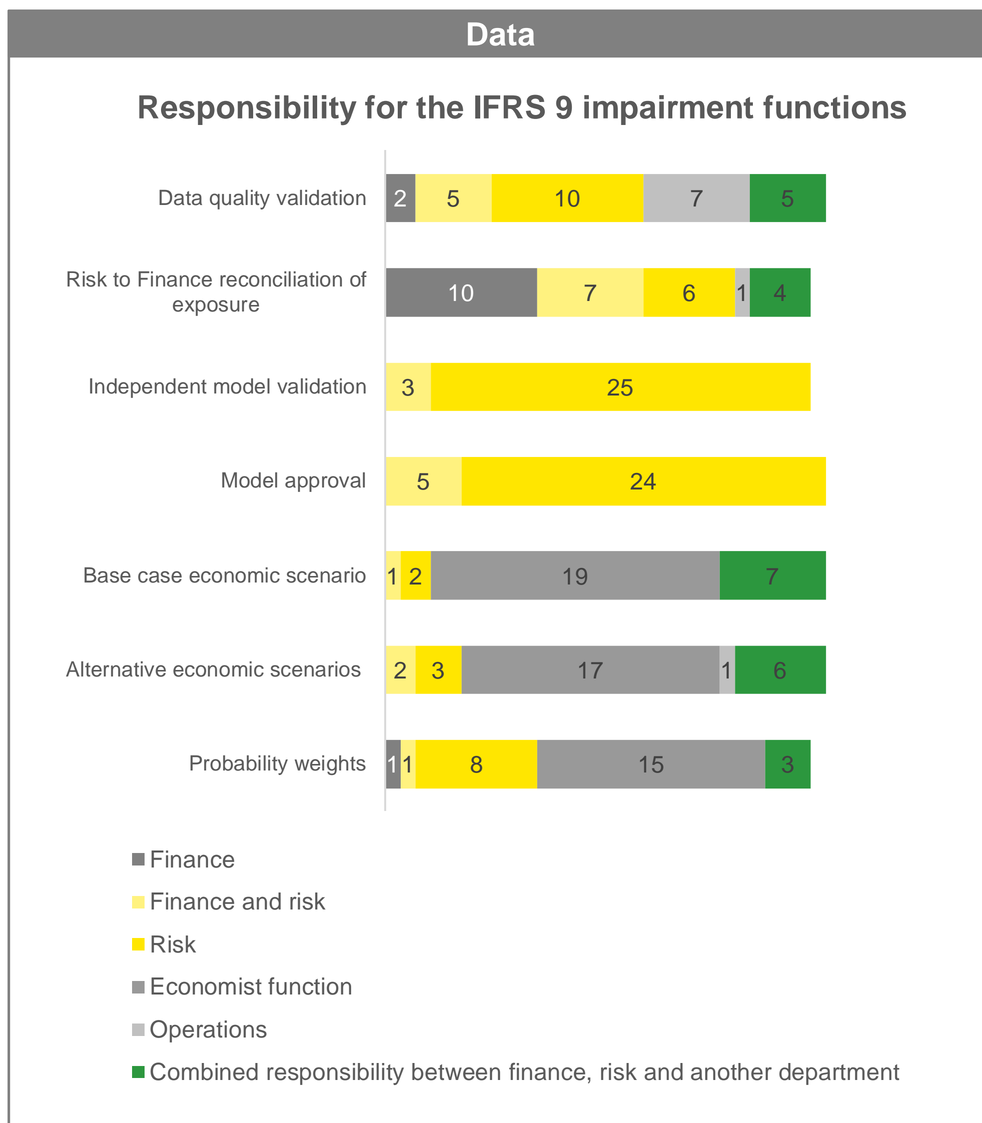
Commentary

Cutoff date to be used for ECL calculation and refresh of parameters

- Some divergence is shown. However, the majority indicate a one-month data lag .
- Results appeared almost identical for year-end and interim reporting.
- The results were similar for each component of the calculation and the majority of respondents indicated a one-month data lag across the board for exposure, PD and LGD curves, and MES:
  - Exposure: This means applying the exposure at default (EAD) as at the month-end preceding the reporting period.
  - PD: This means applying the rating or score as at the month-end preceding the reporting period. In many instances, PDs get refreshed or calibrated on a periodic basis (e.g., annually), which will result in utilized PDs that are older than one month.
  - LGD and MES: This means applying the LGD and forecasted economic conditions as at the month-end preceding the reporting period.
- At least one-third of banks stated that the reporting date would be used as the cutoff date for both the ECL calculation and stage allocation.
- True-up procedures will not be performed unless a significant difference is identified.
- **The one-month-or-more data lag approaches may have a significant impact on disclosures and may result in a mismatch between disclosure of exposures versus ECL.** In addition, the approach will impact the reconciliation of the movement table for both exposure and ECL. Banks are considering a number of adjustment processes to ensure alignment of disclosures.

3. Operating model
Responsibility

Data



Commentary

Responsibility for various components split between finance, risk, operations and economist functions

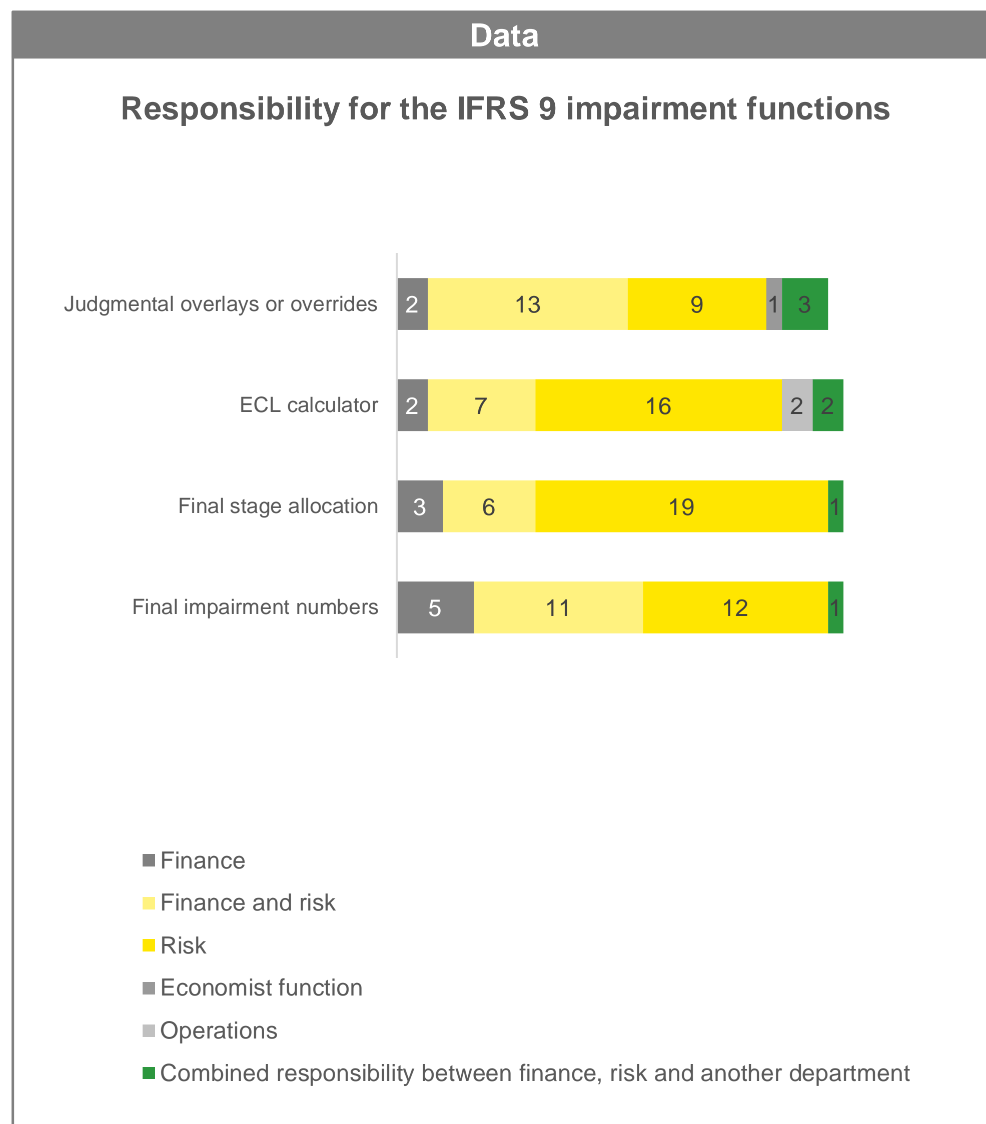
- Risk is the primary function responsible for data quality; although this will depend on the nature and source of the particular data attribute required for ECL calculation purposes. Hence, finance, economists and operations are also responsible.
- Reconciliation of exposures tends to sit with finance, which ensures that the source to report system data is complete and accurate.
- Model approval is clearly owned within risk as is independent model validation. We expect these to be segregated teams within risk functions.

Multiple economic scenarios

- The base case (most likely) economic scenario is generally the responsibility of economist functions, and in some instances, is a joint responsibility with risk.
- Ownership of alternative scenarios and probability weights follows a similar trend to that observed for the base case scenario, although risk takes more responsibility at the stage of assigning probability weights.

3. Operating model
Responsibility (continued)

Data



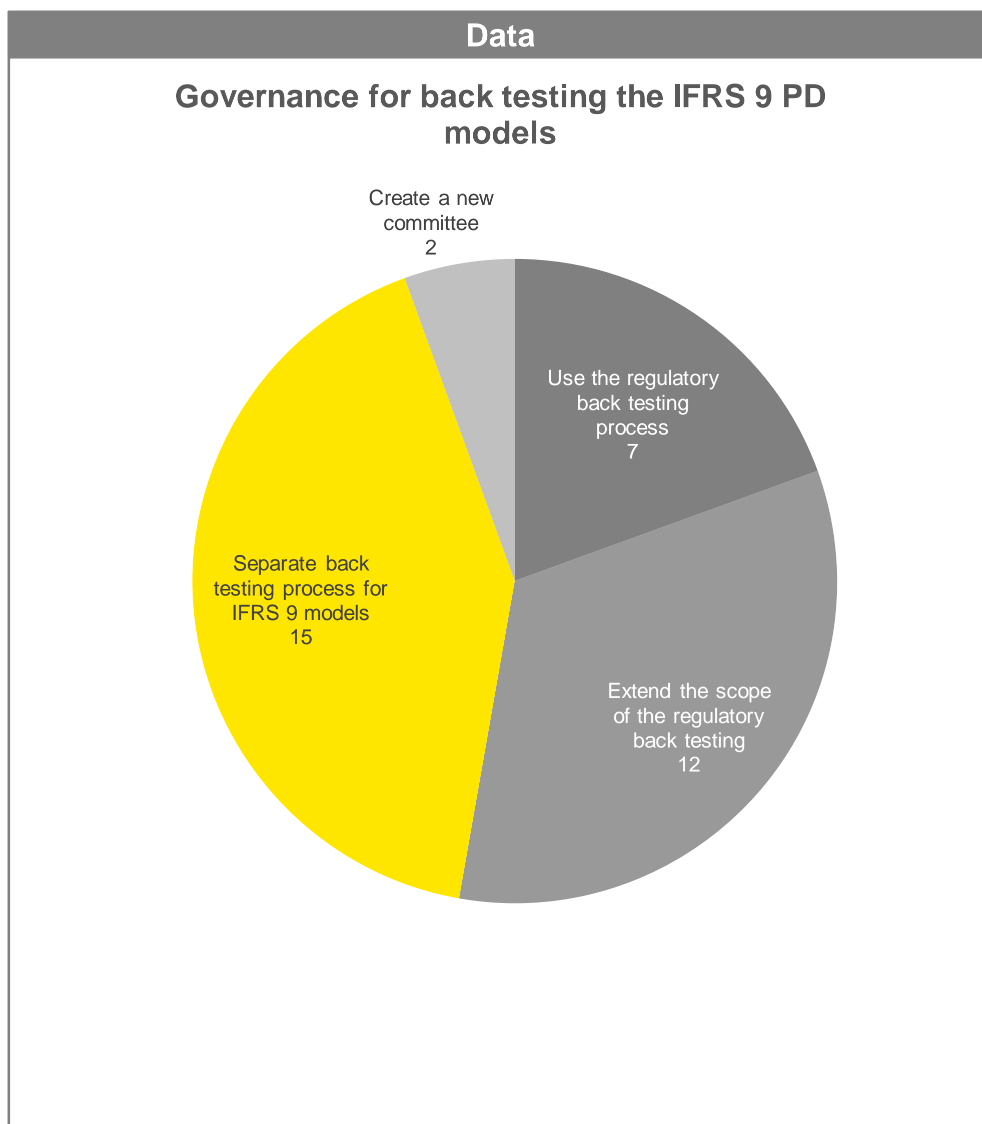
Commentary

Responsibility for IFRS 9

- Overlays are controlled by risk or finance depending on the nature of the adjustment, e.g., overlays for model underperformance, data quality or idiosyncratic factors that are not captured in the model. Most banks adopt a joint model for responsibility.
- ECL calculators are generally owned in the risk function.
- Two-thirds of banks allocate the responsibility of final stage allocation to the risk function.
- **There is a mixed responsibility model for final impairment numbers with most respondents indicating a joint model**. Approaches on governance around these areas appear to still be evolving. The purpose of the question was to consider the governance process for determining the final impairment number rather than the overall responsibility in relation to published financial statements.
- **Clear ultimate responsibility and accountability will be required at senior level.** Senior management regime in the UK, "three lines of defense" principles in Europe and SOX concepts will be important for banks to give due consideration to while allocating ownership.

3. Operating model
Governance for back testing

Data



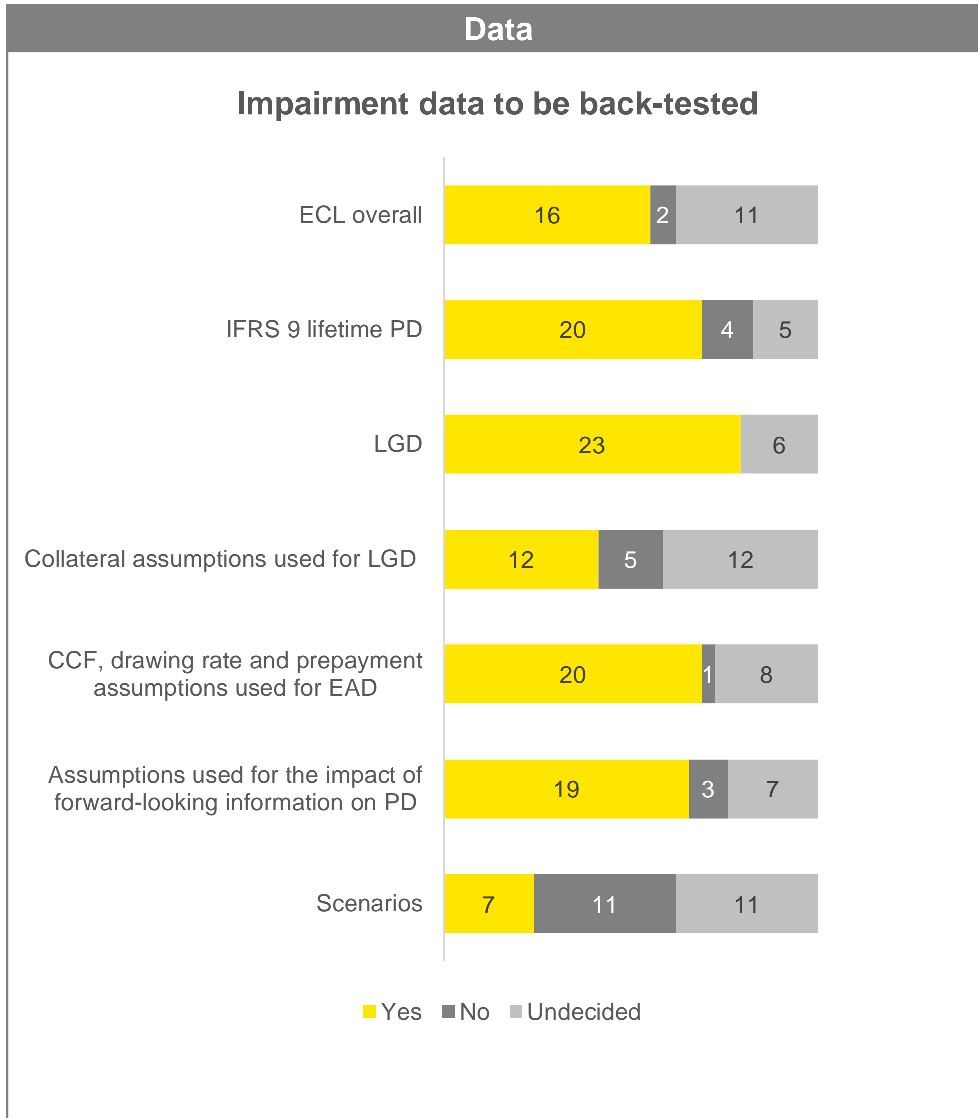
Commentary

Alignment of regulatory definitions

- ► More than half of the respondents indicated that they would use a **separate back testing process for IFRS 9 models using the current governance by changing the terms of reference of the existing committee**. However, some opted to use this new process, leveraging the regulatory back testing currently performed for capital adequacy.
- ► The remaining respondents are opting to use the existing regulatory back-testing process, with more than two-thirds stating they will look to extend its scope.
- ► Only two banks indicated that they would consider creating a new committee in order to govern the performance of IFRS 9 PD models.
- ► Responses appear to be fairly aligned for both retail and wholesale models.
- ► Five banks have indicated that they will use a combination of multiple approaches for the back testing process.

3. Operating model
Back testing

Data



Commentary

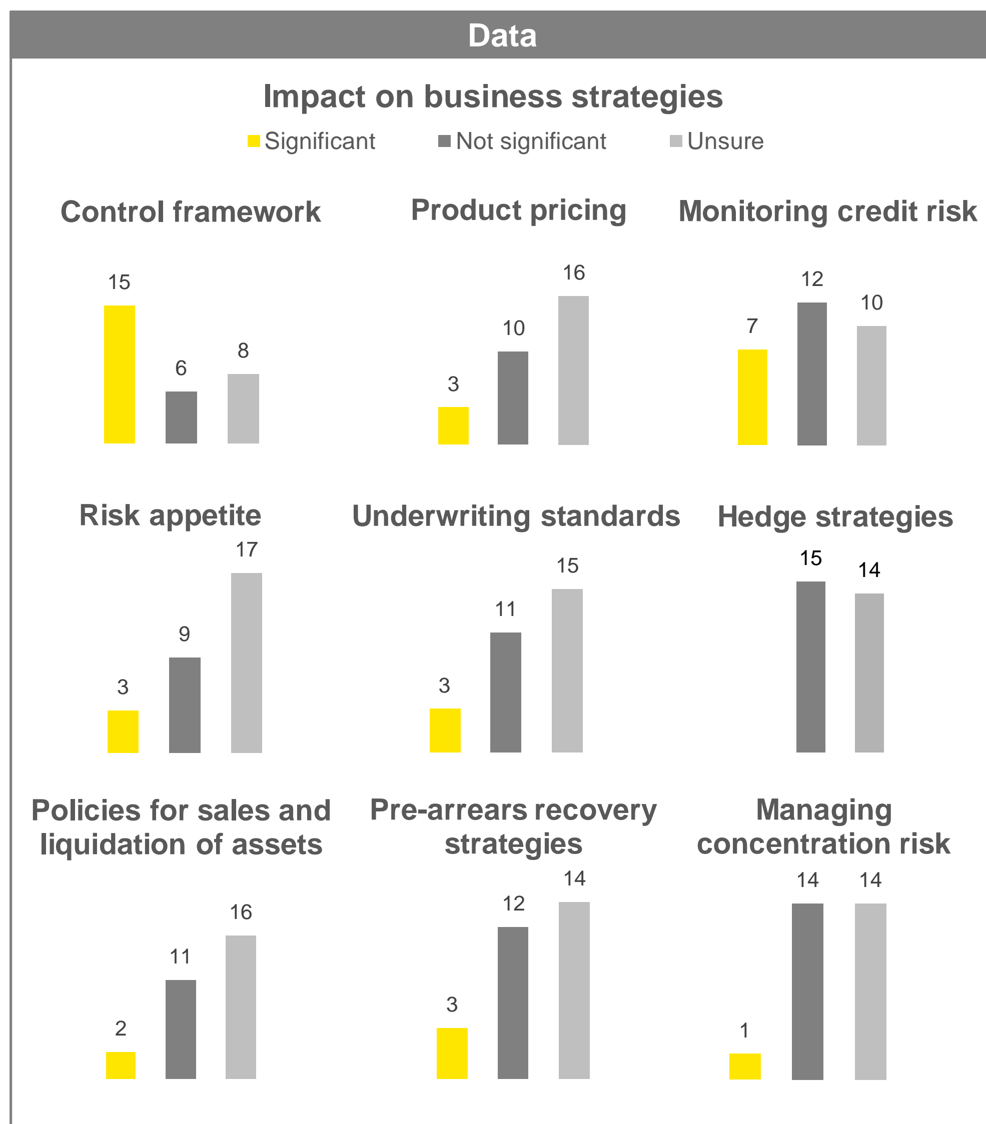
Back testing of economic forecasts still under discussion

- While back testing methodologies have not yet been finalized, a number of respondents indicated that each component of ECL will be subject to some form of back testing.
- The largest area of consensus is around back testing of EAD and refreshing assumptions used in calculating credit conversion factors (CCF's) and prepayment rates.
- **The majority of respondents indicated that they will back-test PDs and LGDs, while the back testing of collateral assumptions used for LGD showed more diversity.**
- The largest area of diversity and uncertainty is back testing of the economic scenarios themselves. We expect banks to be able to back test the impact of the scenarios on the ECL and its sub-components, rather than the scenarios themselves.

3. Operating model

The impact of IFRS 9 on business strategies and control frameworks

Data



Commentary

Impact on business strategies

- The majority of banks expect significant changes to their control frameworks as a result of IFRS 9 implementation. This includes changes to their target operating models and risk control matrices.
- **At the time the data was collected, many banks were unsure what the impact of IFRS 9 will be on various business strategies such as product pricing and how credit risk would be mitigated** through the use of additional covenants, increased collateral and granting loans with shorter durations.
- The impact on pricing strategy will depend on how banks will be able to transfer the capital impact to the client, and whether the bank is a price-taker or price-maker.
- Given the neutral capital impact in Australia, little impact on pricing is expected in this country.
- Most banks still need to determine how IFRS 9 will impact risk appetite and hedging strategies.
- The front-line business areas in a number of banks are waiting to see actual numbers flow from the parallel run before making product decision. It also seems that **certain banks will take a “wait-and-see” approach to understand how the market and business will react to IFRS 9.**

4. Stage allocation
Overall observations

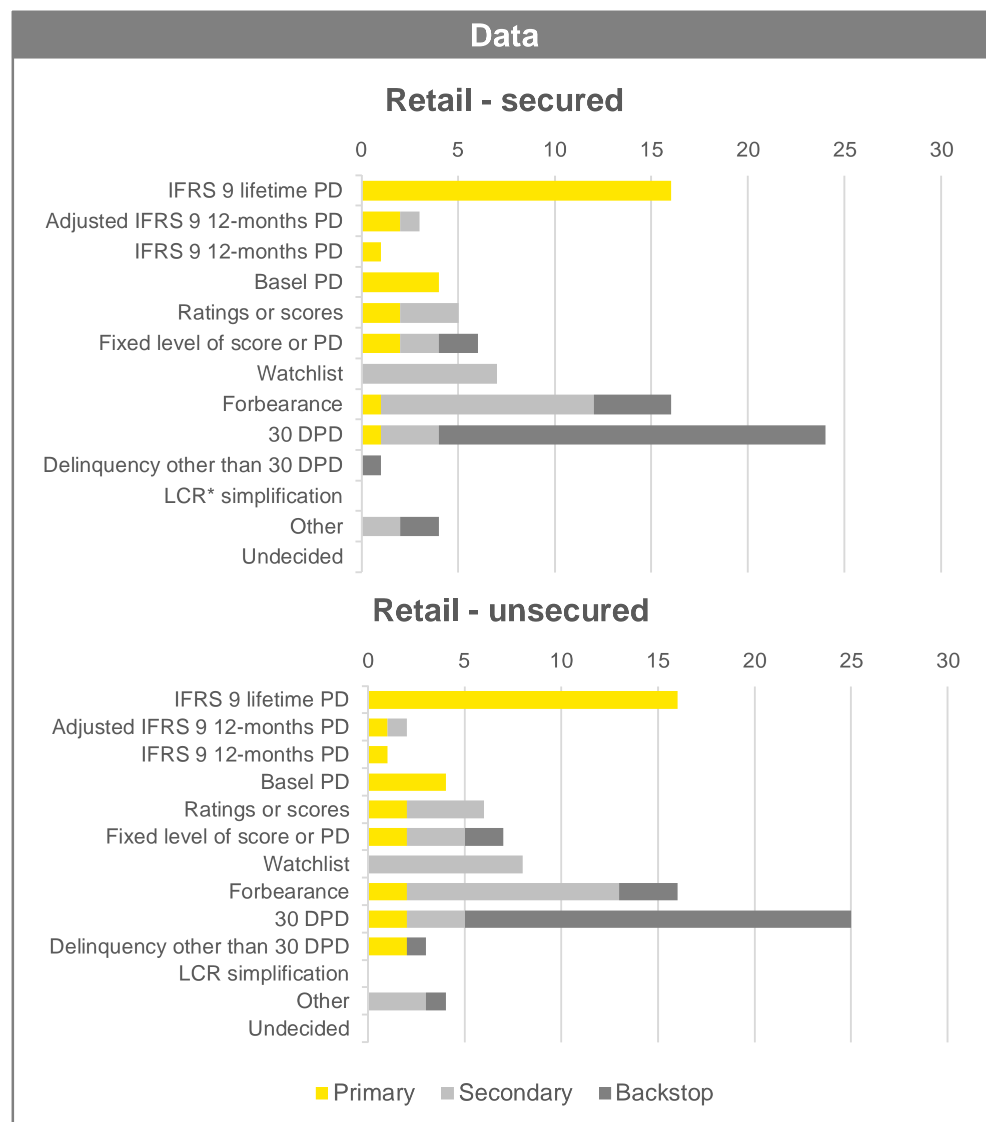
Commentary

- As already emerged in the previous survey, all banks consider using a combination of quantitative and qualitative drivers structured as primary and secondary drivers, plus backstops. The primary driver is the earliest indicator and is generally based on a relative measure, while the others cover more obvious (absolute) signs of deterioration, such as forbearance or delinquency.
- Most banks intend to use IFRS 9 lifetime PDs and rating deterioration as the primary drivers for staging. This is generally assisted by watchlists and forbearance measures as a secondary indicator for wholesale and retail, respectively.
- The use of 30 DPD as a backstop for classification into stage 2 is prominent compared with other measures across all types of exposures.
- Several banks will use a combination of different backstops in addition to the 30 DPD presumption, forbearance being one of them when not used as a secondary indicator.
- **Use of variation of 12-month PD:** Banks will have to demonstrate that they are not missing any significant increase in risk of a default beyond 12 months. This may require further adjustments on the basis of macroeconomic forecasts. However, these indicators are still considered very relevant as they are well understood and have been used and tested for some time.
- **Use of variation of lifetime PD:** The obvious challenge on transition is to have data available at the origination date for existing portfolios (including forward-looking information). Some banks mentioned that they would have to use proxies on transition (Basel scores, through the cycle (TTC) PDs, latest information available or lending policy cutoffs).
- **Use of variation of ratings:** Ratings are considered more forward looking by nature as they involve more expert judgment on the basis of a wider range of information, including more prospective information (borrower’s financials, sectorial information, etc.) and look beyond a 12-month horizon. Depending on their calibration, they may also require demonstrating that the associated PDs reflect current circumstances and reasonable forecasts.
- **Transitional vs. strategic approach:** The challenges faced at transition are obviously less significant for banks using Basel scores or PD, although some issues may still arise depending on when the IRB models were built. It remains to be seen whether, in the longer term, the development and increasing use of lifetime PD curve (including forward-looking elements) may result in more convergence toward the use of this more sophisticated quantitative measure.

4. Stage allocation

Indicators of significant deterioration in credit risk - retail

Data



*Low credit risk

Commentary

Retail – secured exposures

- **Most banks will utilize lifetime PDs as primary indicators** with fewer banks intending to use 12-month and Basel PDs as the primary indicator.
- **Many banks will utilise forbearance as the secondary indicator,** with many other utilizing behavioral scoring processes. No banks indicated forbearance as a primary indicator.
- **Most banks will not use 30 DPD as a primary indicator**, effectively showing that institutions have heard the regulators' messages about delinquency being a lagging indicator.
- **Watchlists continue to only be secondary indicators** for both secured and unsecured retail exposures, broadly in line with the observations from 12 months ago. Retail watchlists are more mechanical than for corporate exposures and tend to largely overlap with forbearance and delinquency as well as fixed levels of scores or PDs.

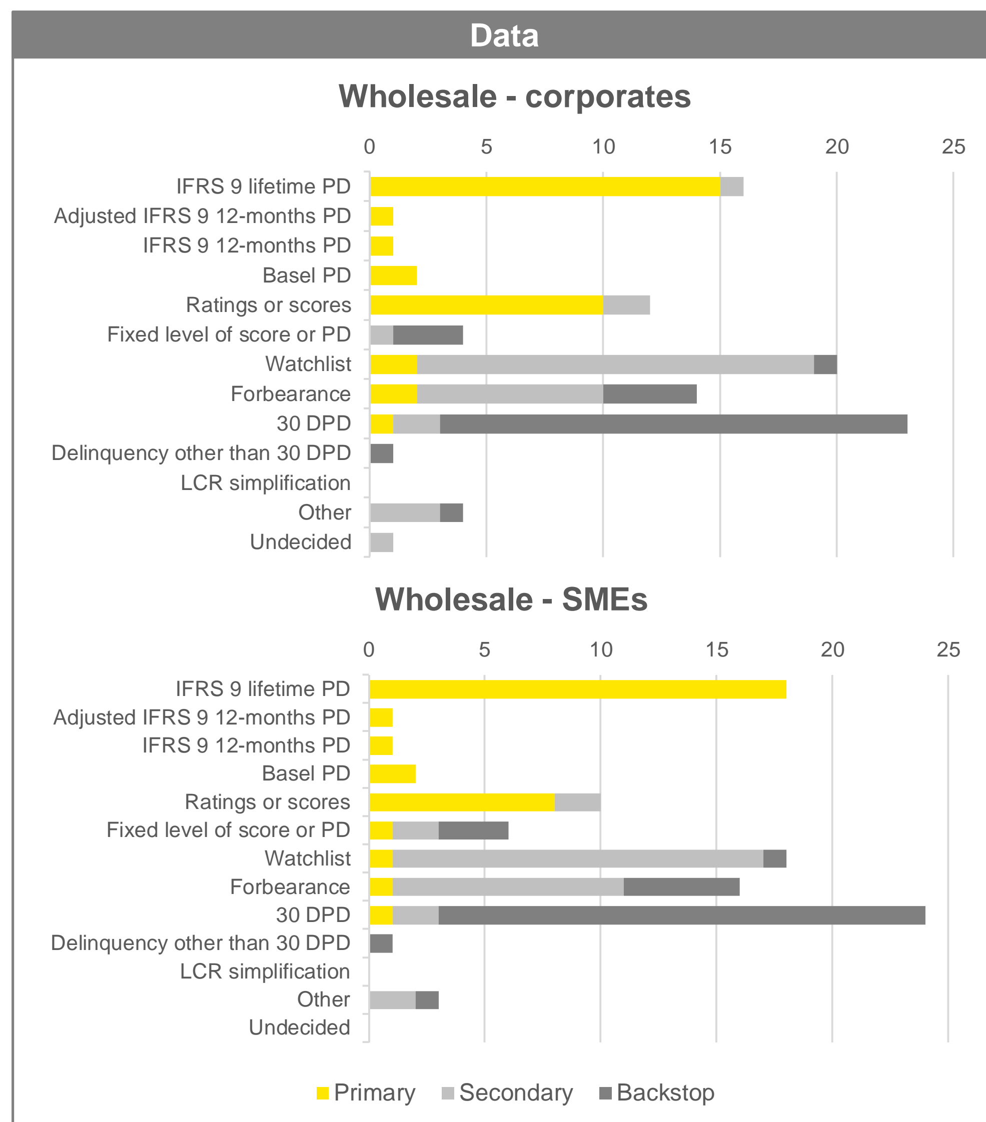
Retail – unsecured exposures

- Similar to secured retail exposures, most banks will use lifetime PDs as the primary indicator with a few banks intending to use 12-month and Basel PDs.
- Forbearance and 30 days past will again be used as backstops for transfers to stage 2. **Days past due are considered as a particularly relevant indicator for credit cards by most banks.**
- "Specific client monitoring" was generally stated as a secondary indicator within the "other" category.
- Two banks noted forbearance as a primary indicator, which was not the case during the previous survey.

4. Stage allocation

Indicators of significant deterioration in credit risk – wholesale

Data



Commentary

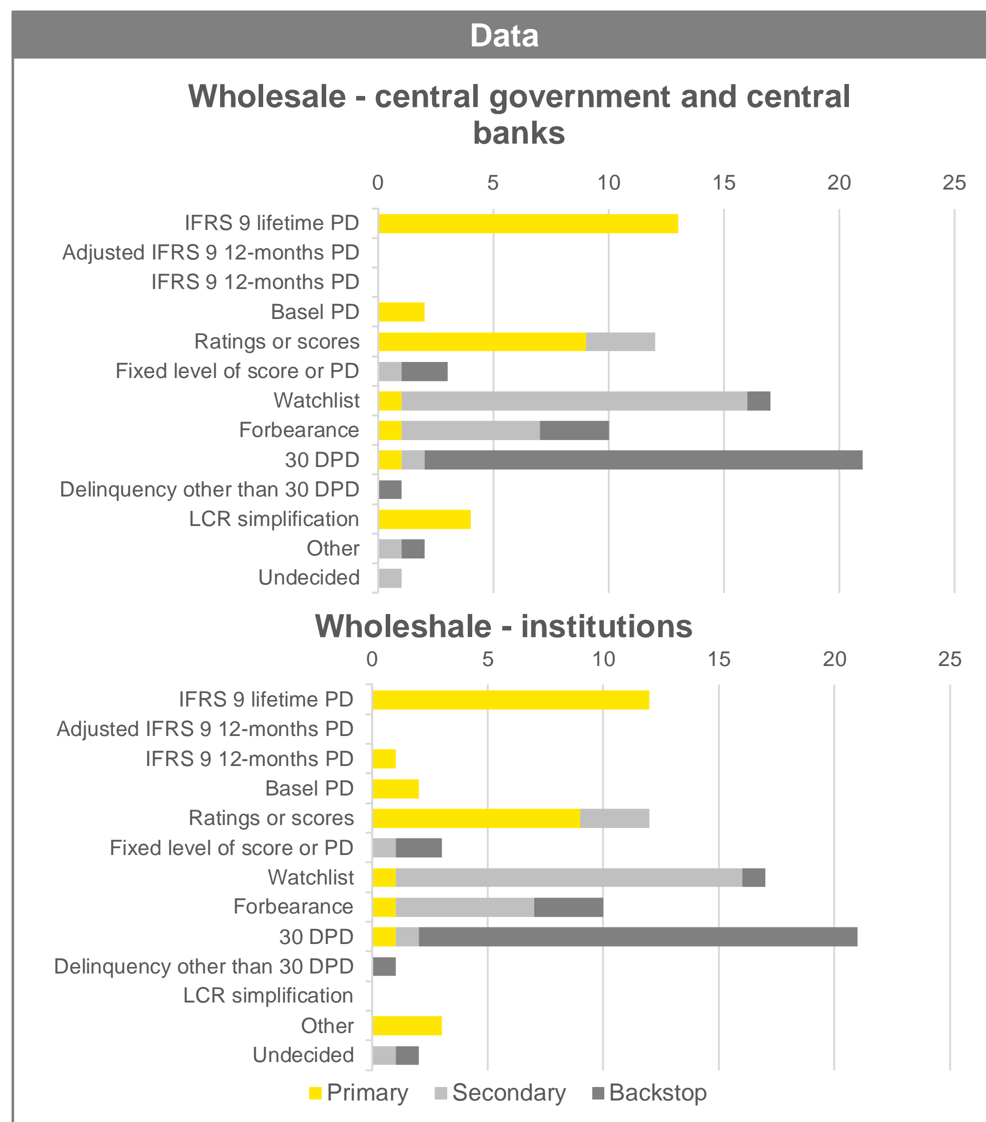
Wholesale – exposures to corporates and SMEs

- As for all other exposures, IFRS 9 lifetime PDs and rating or scores are the most common approaches used as primary indicators of increase in credit risk.
- **For both for corporates and SMEs, the use of watchlists and forbearance measures is significant,** mostly as a secondary indicator, but as a primary indicator by two banks. However, more mixed practices toward indicators utilized for retail are adopted for SMEs compared to corporates.
- Compared with 12 months ago, fewer banks will use watchlists as primary indicators.
- **Overlay adjustments will be made and the criteria will be reviewed regularly by governance committees.**
- No banks intend to use the low credit risk (LCR) simplification for corporate exposures with only one bank stating that it will use this simplification for SME exposures in combination with IFRS 9 PD lifetime.
- “Expert judgment” and “specific client monitoring” were generally noted as indicators within the “other” category.

4. Stage allocation

Indicators of significant deterioration in credit risk – wholesale (continued)

Data



Commentary

Wholesale – exposures to central government, central banks and institutions

- Although most banks will adopt the approach described, the use of **LCR simplification is adopted as a primary driver by approximately 10% of the banks** for exposures with central governments, central banks and institutions.
- Two banks will use Basel PDs as primary drivers.
- One bank indicated that it intends to apply the rule of contagion: in case of significant increase or default of one exposure, all exposures from the counterparty are transferred to stage 2 or stage 3.

4. Stage allocation

Indicators of significant deterioration in credit risk – debt securities

Data

Commentary

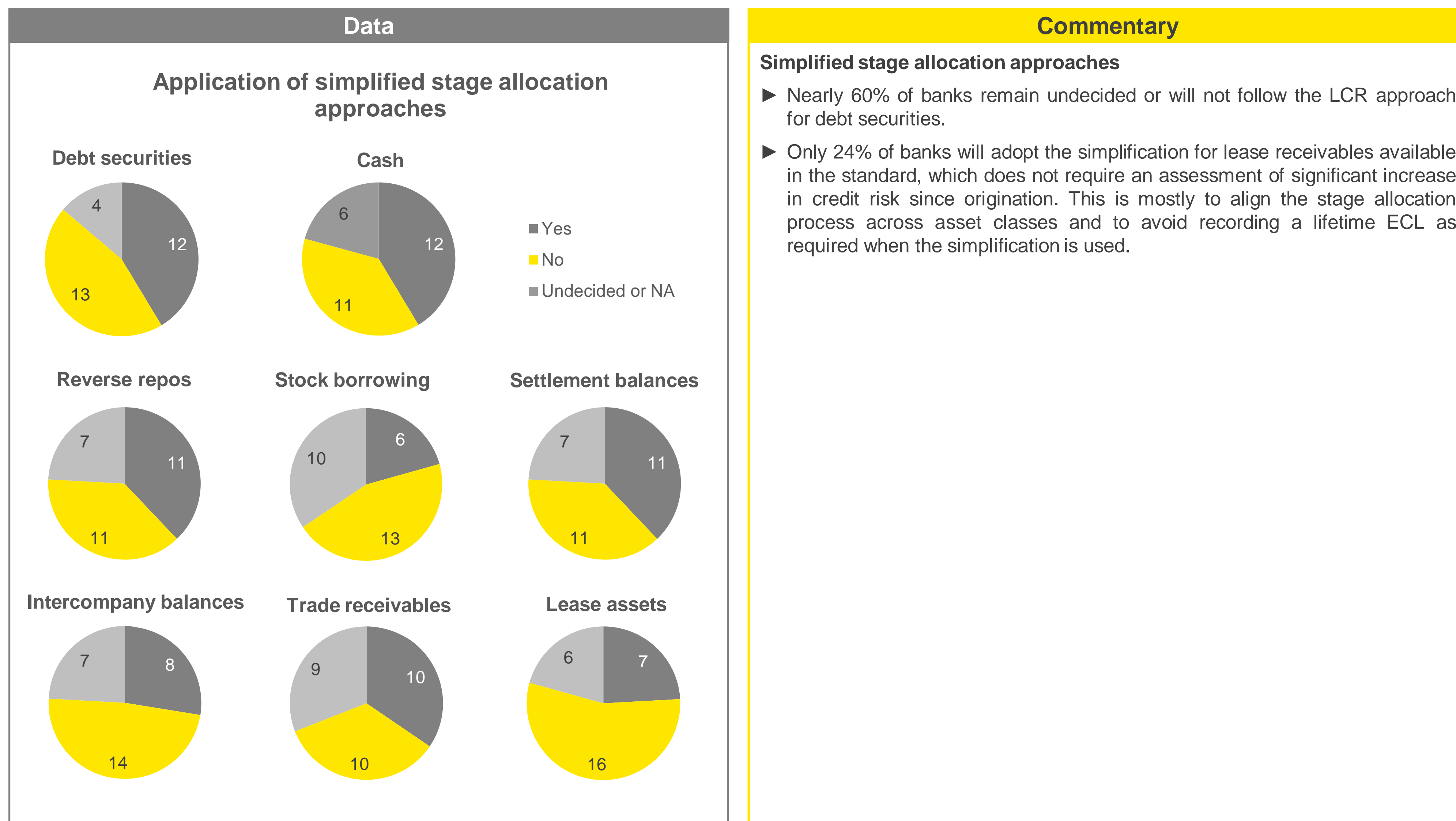
Debt securities exposures

- ► A number of banks remain undecided on which primary indicators, secondary indicators and backstops they will use.
- ► A number of banks will use the LCR simplification as their primary indicator of deterioration in credit risk for debt securities. Other banks will utilise lifetime PDs (as opposed to 12-month or Basel PDs) as the primary indicator followed by other risk metrics like scores and ratings.
- ► Watchlists will generally be used as a secondary indicator. Two banks are considering adding an exposure to their watchlists as a primary indicator of deterioration in credit risk.
- ► A minority of the banks will use ratings and scores as a primary indicator.

4. Stage allocation

Simplified stage allocation approaches for specific types of instruments

Data

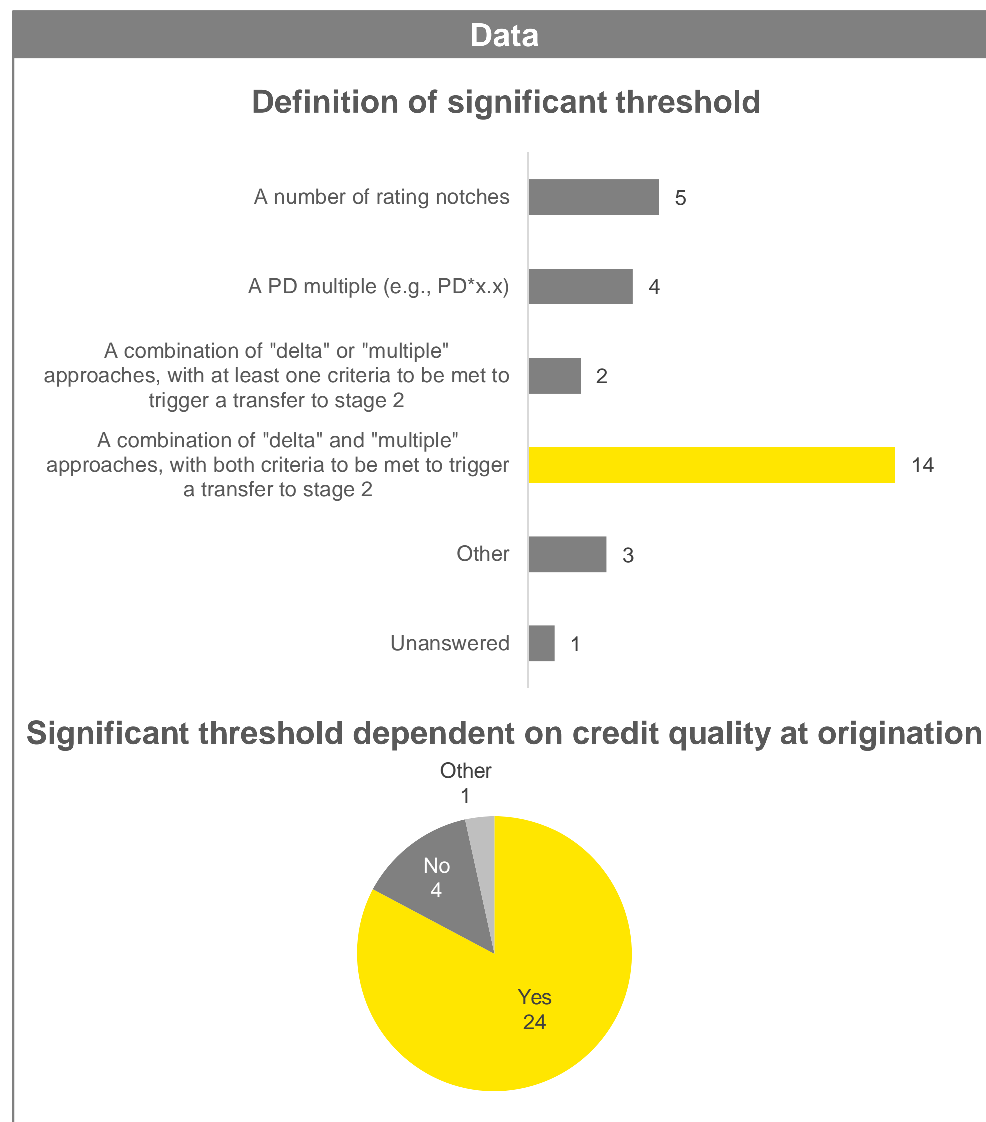


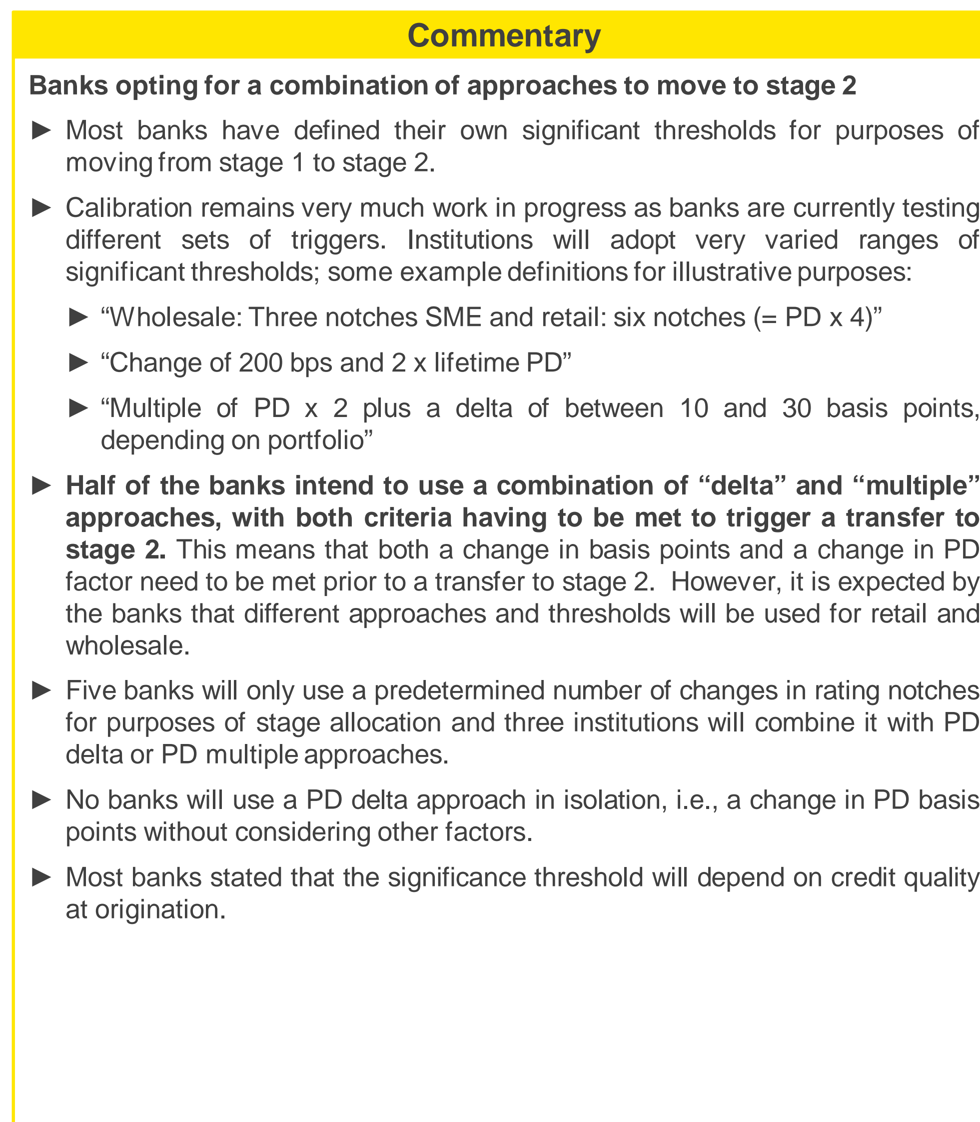
Commentary

Simplified stage allocation approaches

- ► Nearly 60% of banks remain undecided or will not follow the LCR approach for debt securities.
- ► Only 24% of banks will adopt the simplification for lease receivables available in the standard, which does not require an assessment of significant increase in credit risk since origination. This is mostly to align the stage allocation process across asset classes and to avoid recording a lifetime ECL as required when the simplification is used.

4. Stage allocation
Definition of significant thresholds





Commentary

Banks opting for a combination of approaches to move to stage 2

- Most banks have defined their own significant thresholds for purposes of moving from stage 1 to stage 2.
- Calibration remains very much work in progress as banks are currently testing different sets of triggers. Institutions will adopt very varied ranges of significant thresholds; some example definitions for illustrative purposes:
  - "Wholesale: Three notches SME and retail: six notches (= PD x 4)"
  - "Change of 200 bps and 2 x lifetime PD"
  - "Multiple of PD x 2 plus a delta of between 10 and 30 basis points, depending on portfolio"
- **Half of the banks intend to use a combination of "delta" and "multiple" approaches, with both criteria having to be met to trigger a transfer to stage 2.** This means that both a change in basis points and a change in PD factor need to be met prior to a transfer to stage 2. However, it is expected by the banks that different approaches and thresholds will be used for retail and wholesale.
- Five banks will only use a predetermined number of changes in rating notches for purposes of stage allocation and three institutions will combine it with PD delta or PD multiple approaches.
- No banks will use a PD delta approach in isolation, i.e., a change in PD basis points without considering other factors.
- Most banks stated that the significance threshold will depend on credit quality at origination.

4. Stage allocation

Forbearance, alignment to Basel definitions of default and derecognition

Commentary

Distinction between performing and nonperforming forbearance

- **Fifty percent of banks will allocate nonperforming forborne exposures in stage 3 and performing forborne exposures in stage 2 – using one-year and two-year probation periods, respectively.** This is to align to the European Banking Authority (EBA) definition of nonperforming status.
- Some banks will slightly depart from the regulatory view and will use forbearance as a trigger to classify into stage 2 in the first year from the change in status and then apply the regular staging criteria thereafter.
- There is diversity between retail and wholesale, with retail having longer probation periods (generally no longer than two years). In some instances, probation periods for stage 2 assets depend on the stage the instruments was classified when not forborne.
- Seven banks noted that they will not consider a link between forbearance and staging as forbearance is already embedded in the ratings or not considered as a distinct indicator.

Alignment of regulatory definitions and rebuttable presumptions

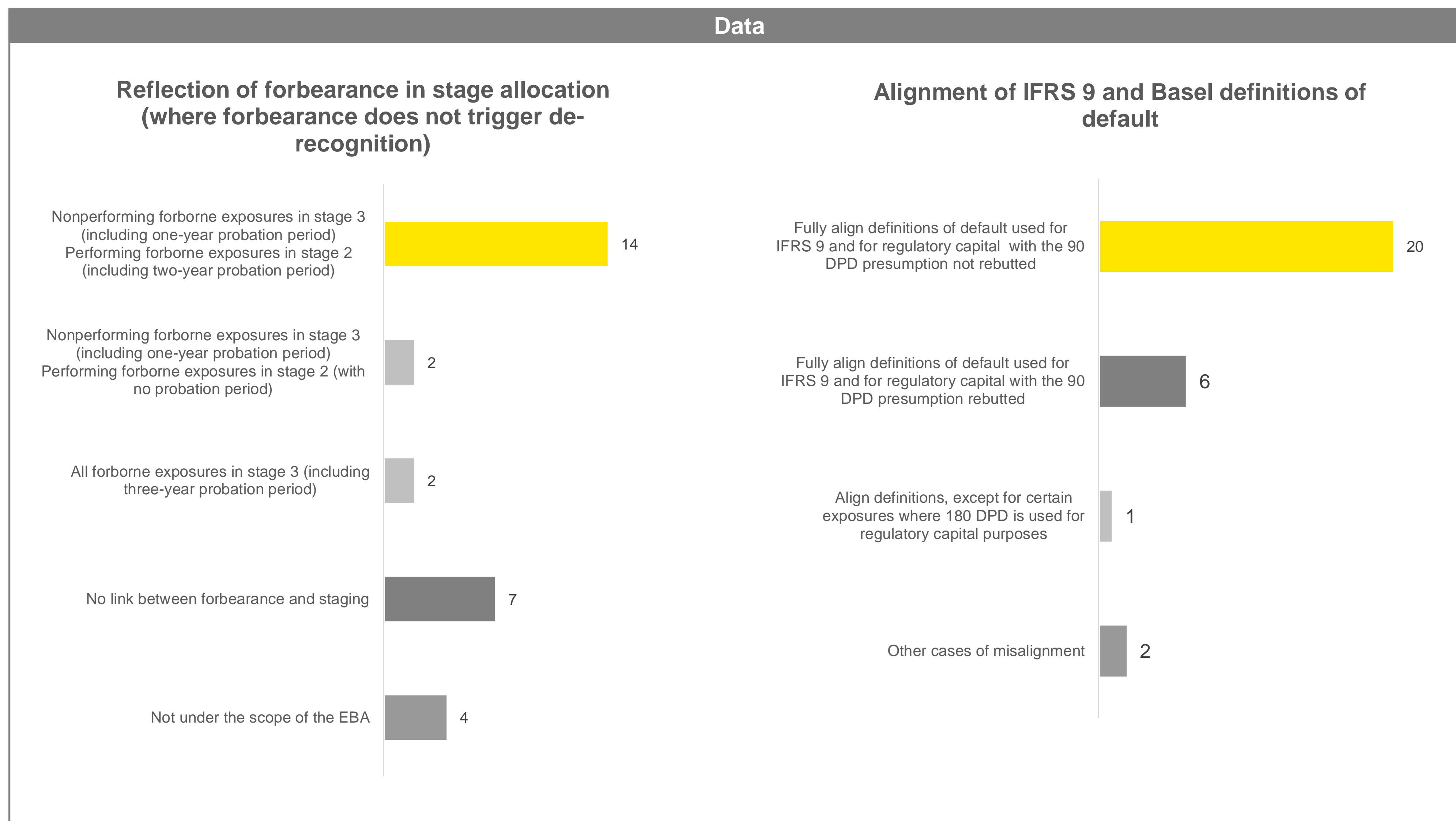
- **Almost all banks intend to align their IFRS 9 definition of default with the regulatory definition**, with only a few exceptions relating to DPD.
- For those banks using a 180 DPD trigger under Basel, full alignment implies rebutting the 90 DPD presumption. These banks also mentioned that their regulatory definition of default is evolving toward a more systematic use of the 90 DPD trigger – decreasing the need to rebut the IFRS 9 presumption.
- Certain banks are still considering whether they will rebut the 90 DPD presumption and will only conclude when the parallel run information becomes available.
- The few banks that will rebut the 90 DPD presumption will limit this to very specific portfolios (credit cards in Canada, mortgages in the UK, public sector, sovereigns, institutions or under exceptional circumstances for others).

Different approaches to consider potential derecognition

- Banks apply various approaches to consider possible derecognition when a credit-related modification was made to an exposure. Most banks apply both qualitative and quantitative assessments to identify substantial modifications that will result in derecognition.
- Certain banks apply to assets the 10% quantitative present value test applicable to the derecognition of financial liabilities as per IAS 39. These banks intend to apply the same approach under IFRS 9.
- The definition of a small threshold may cause more derecognition events and, therefore, new assets being recognized as stage 1 or originated credit impaired. The net effect would result in a reduction of ECL.
- **Generally, banks consider derecognition to be rare as a result of credit-related modifications** and most banks (with the exception of four banks) will not change their derecognition approaches when first applying IFRS 9.
- Banks will consider forbearance in the derecognition assessment, but most banks, with the exception of one, noted that forbearance will rarely result in derecognition. One European bank stated: "When a renegotiation results in the derecognition of a product and the recognition of a new product the new product is considered as purchased or originated credit-impaired (POCI)."

4. Stage allocation

The impact of forbearance and alignment to Basel definitions of default



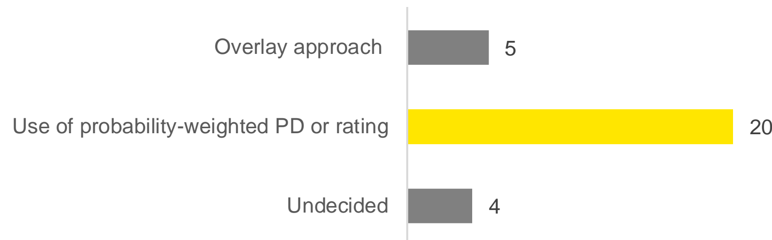
*Other cases of misalignment refer to one bank stating different probation periods for IFRS 9 and regulatory purposes and another bank, which will align fully with the Basel definition of default, but will have stage 1 derecognized forborne assets.

5. Multiple-scenario approach

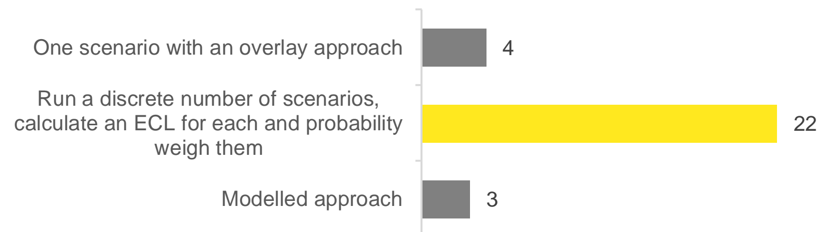
MES on stage allocation and ECL measurement

Data

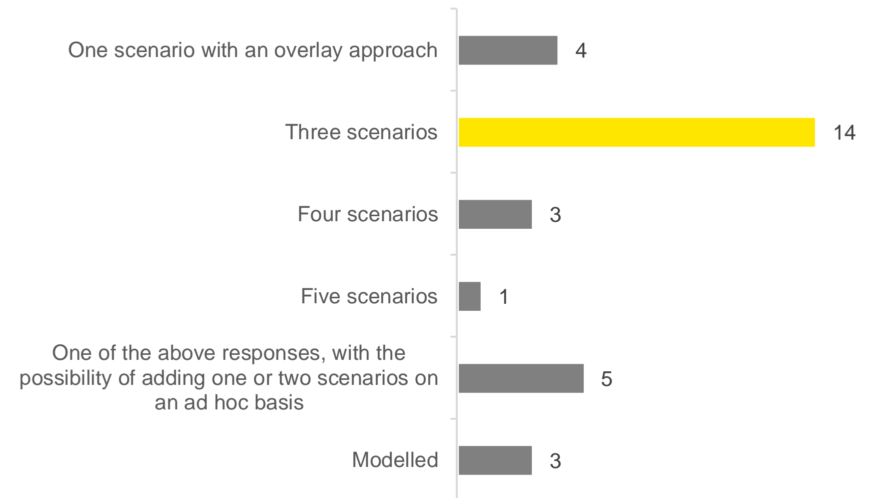
MES effects on stage allocation



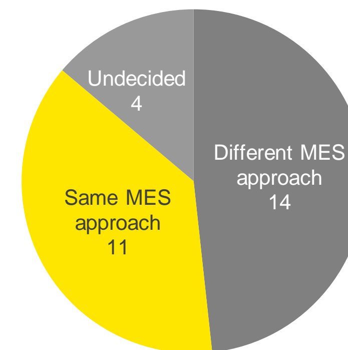
MES approach for ECL measurement



Number of forward-looking scenarios*



Use of a different MES for stage 3 assets



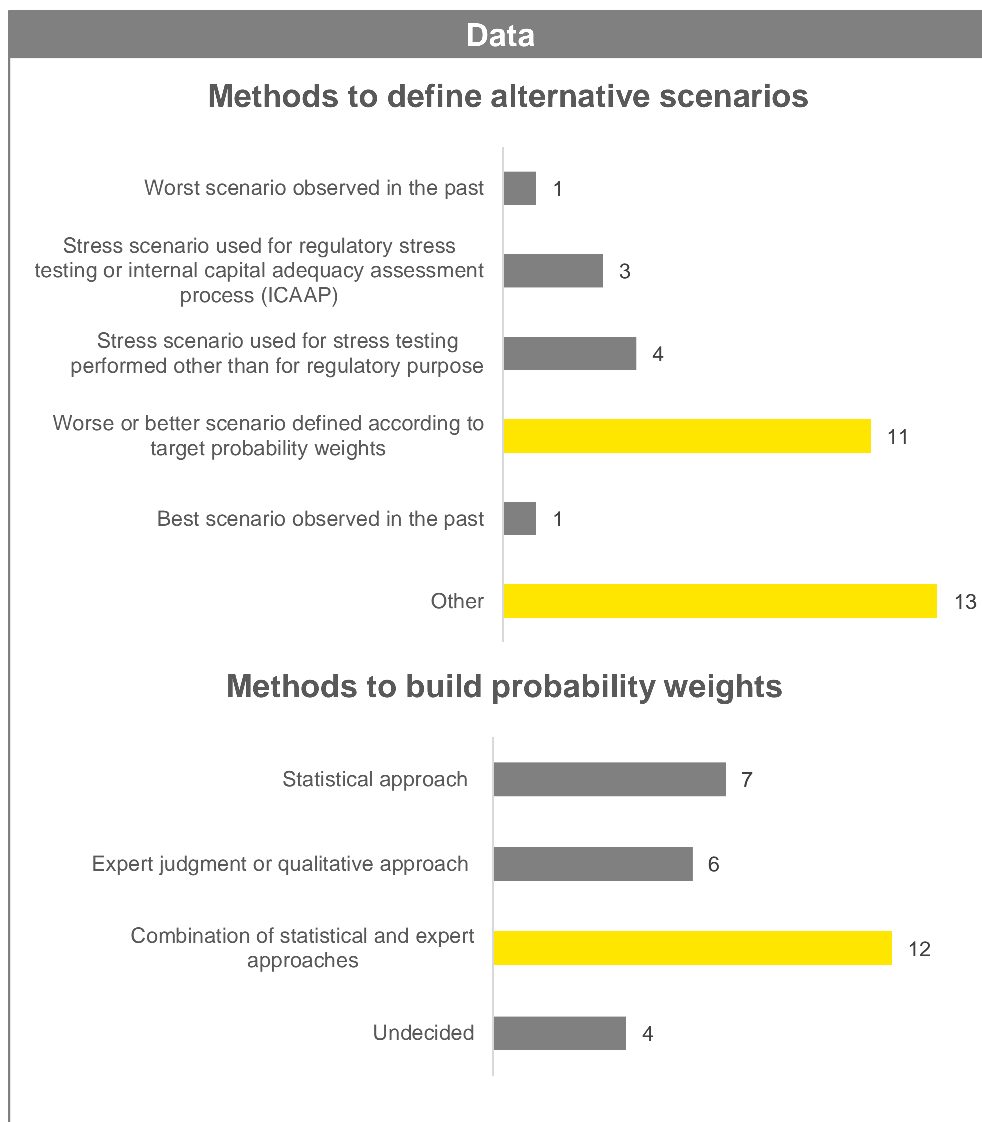
Commentary

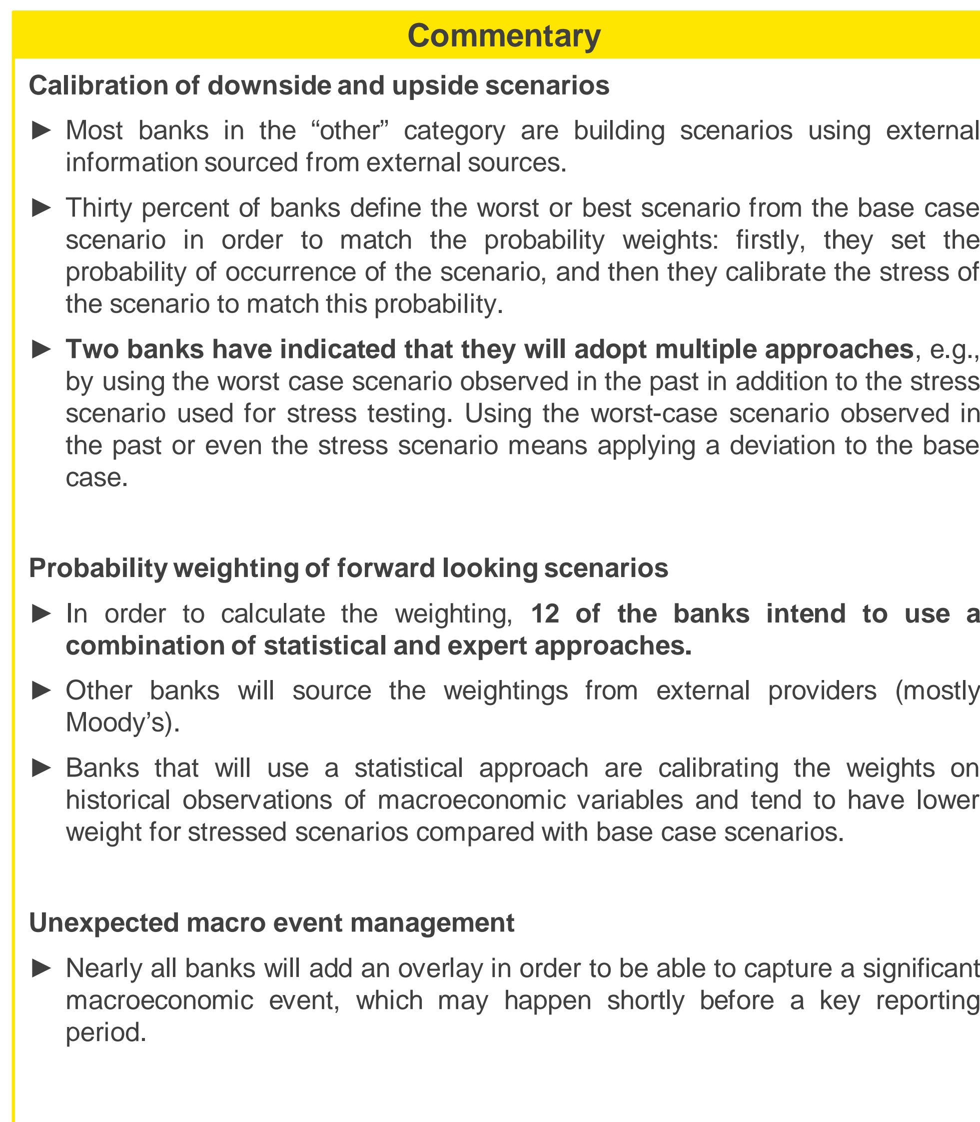
Many banks will use different forward-looking approaches for stage 3

- Integrating forward-looking information in stage 3 means that the LGD will be sensitive to macroeconomic variables as a PD equal to 100% will be used in the ECL calculation.
- Alternative approaches are:
  - Applying only a forward looking overlay
  - Individually assessing how the forward-looking scenarios impact the individual cash flow recoveries on material exposures

*One bank will use discrete scenarios for retail and modeled for wholesale.

5. Multiple-scenario approach
Alternative scenarios





Commentary

Calibration of downside and upside scenarios

- Most banks in the "other" category are building scenarios using external information sourced from external sources.
- Thirty percent of banks define the worst or best scenario from the base case scenario in order to match the probability weights: firstly, they set the probability of occurrence of the scenario, and then they calibrate the stress of the scenario to match this probability.
- **Two banks have indicated that they will adopt multiple approaches**, e.g., by using the worst case scenario observed in the past in addition to the stress scenario used for stress testing. Using the worst-case scenario observed in the past or even the stress scenario means applying a deviation to the base case.

Probability weighting of forward looking scenarios

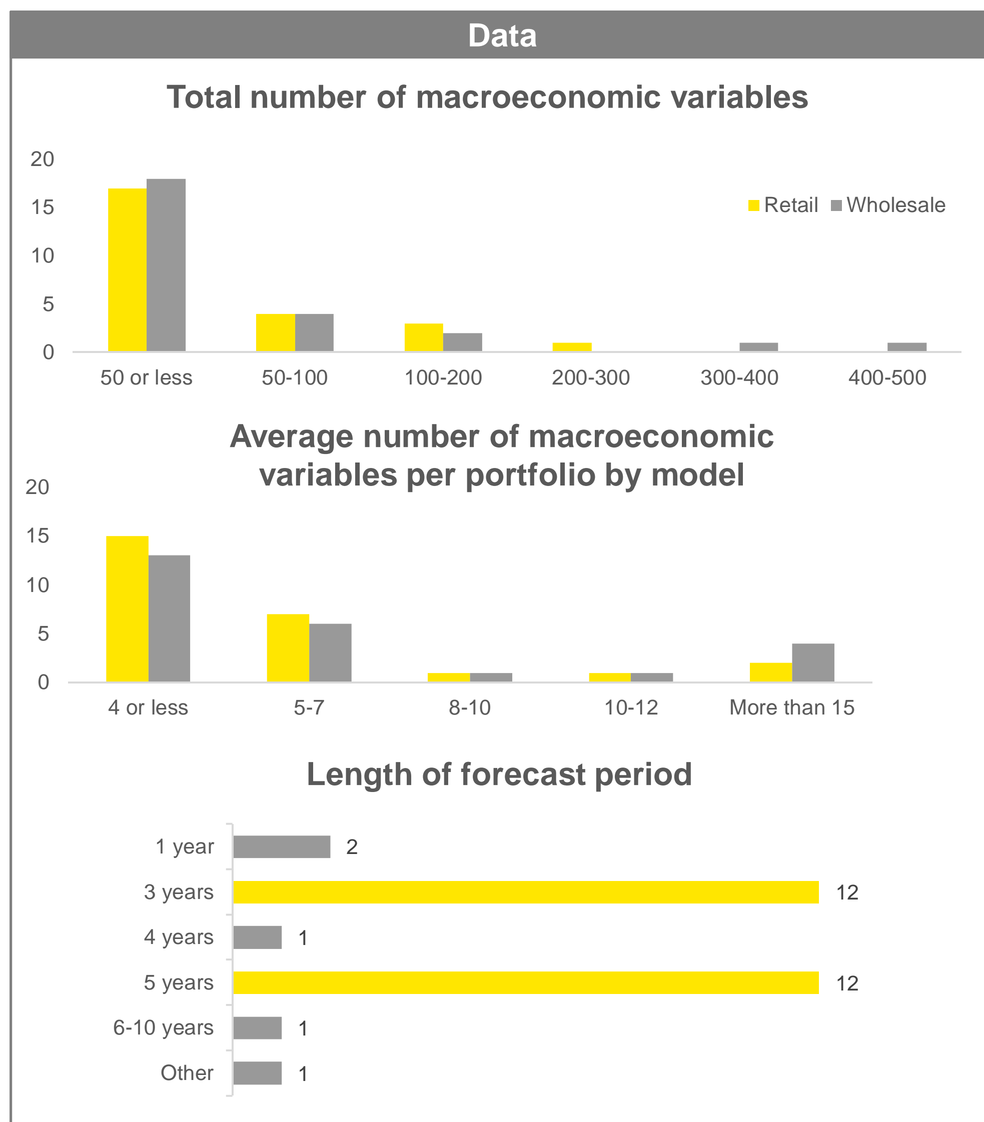
- In order to calculate the weighting, **12 of the banks intend to use a combination of statistical and expert approaches.**
- Other banks will source the weightings from external providers (mostly Moody's).
- Banks that will use a statistical approach are calibrating the weights on historical observations of macroeconomic variables and tend to have lower weight for stressed scenarios compared with base case scenarios.

Unexpected macro event management

- Nearly all banks will add an overlay in order to be able to capture a significant macroeconomic event, which may happen shortly before a key reporting period.

5. Multiple-scenario approach
Macroeconomic variables

Data



Commentary

Number of macroeconomic variables

- The first graph represents the total number of macroeconomic variables used by the global scenario of the bank across all portfolios.
- The second graph illustrates the average number by models.
- Most banks are using less than 50 macroeconomic variables overall and approximately five macroeconomic variables per portfolio.
- As expected, larger banks and G-SIBs tend to use more variables than others in their models. In particular:
  - Six banks intend to use between 50 and 100 variables.
  - Three banks intend to use between 100 and 200 variables.
  - Three banks intend to use more than 200 variables.
- The number of variables is a function of the number of geographies and markets to which the bank is exposed.
- On average, more macroeconomic variables are used to model wholesale portfolios.
- The key drivers are the market variables for wholesale portfolios and the affordability variables for retail portfolios.

Period over which macroeconomic variables would be forecasted accurately before reverting to the long-term average forecast

- The length of the forecast is limited since banks are not able to predict accurately after a prolonged period of time. At the end of the forecast window, most banks revert to the mean PD.
- Most banks will apply either a three-year or five-year forecast.
- Generally, banks have used their existing forecasts period for determining the above.

6. Measurement of expected credit loss

Credit card portfolio

Commentary

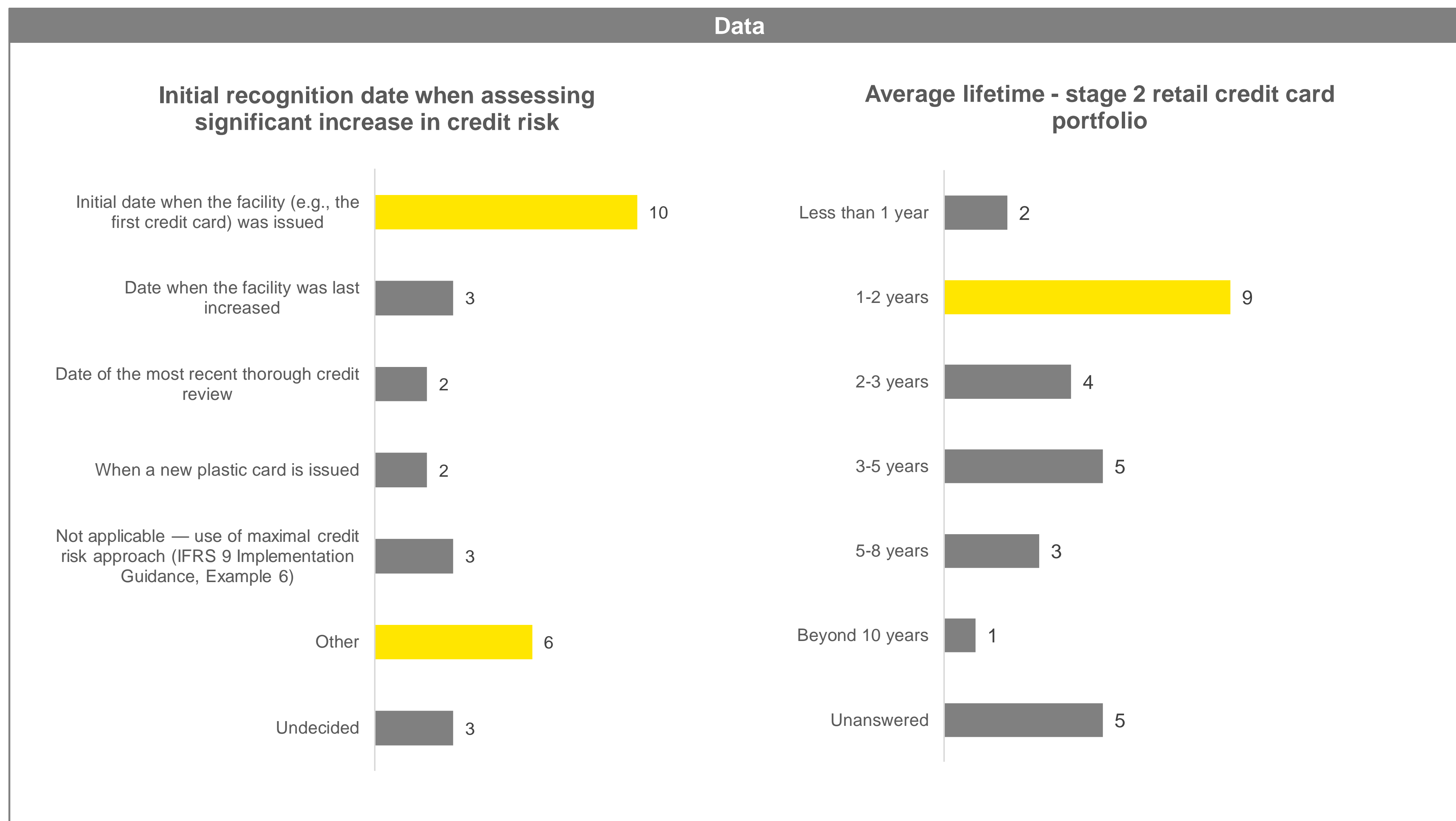
Some divergence in approaches to the "starting point" of credit cards for purposes of significant deterioration

- ► Thirty percent of banks will use the initial date when the facility was granted, i.e., when the first credit card was issued.
- ► A number of banks will use the date when the facility was last increased or when the latest credit review was performed.
- ► Certain banks will reassess the date if a more recent credit review is performed and current pricing on the exposure reflects the review outcome.
- ► Banks who acquired portfolios of cards will use the date of recognition on their balance sheet.
- ► **Few banks intend to adopt simplified approaches for origination date** on the basis of proportionality by adopting absolute measures. This will mostly relate to scenarios where credit card portfolios are not considered to be significant. In addition, two banks will adopt the maximum credit risk approach suggested in the IFRS 9 Implementation Guidance (Example 6), resulting in no need to assess credit risk at origination.

Credit cards average lifetime in stage 2

- ► While some banks have decided not to answer, the most common response was that **stage 2 retail cards' average lifetime is between 12 and 24 months.**
- ► Banks that noted an average lifetime of less than 12 months are European.
- ► Canadian and UK-based banks generally noted a wide range with a number of banks in the lifetime bracket beyond 24 months up to 8 years.
- ► The following are examples of approaches to be applied for illustrative purposes:
  - ► "Based on historic data - average lifetime remaining"
  - ► "Determined following an average time to default approach"
  - ► "Behavioural life"
  - ► "Use empirical data: analyze stage 2 stocks to identify the point where the majority of defaults come in"
  - ► "Estimates derived from internal historical data"
  - ► "Behavioural approach considering the time to default or time to closing of account paid in full"

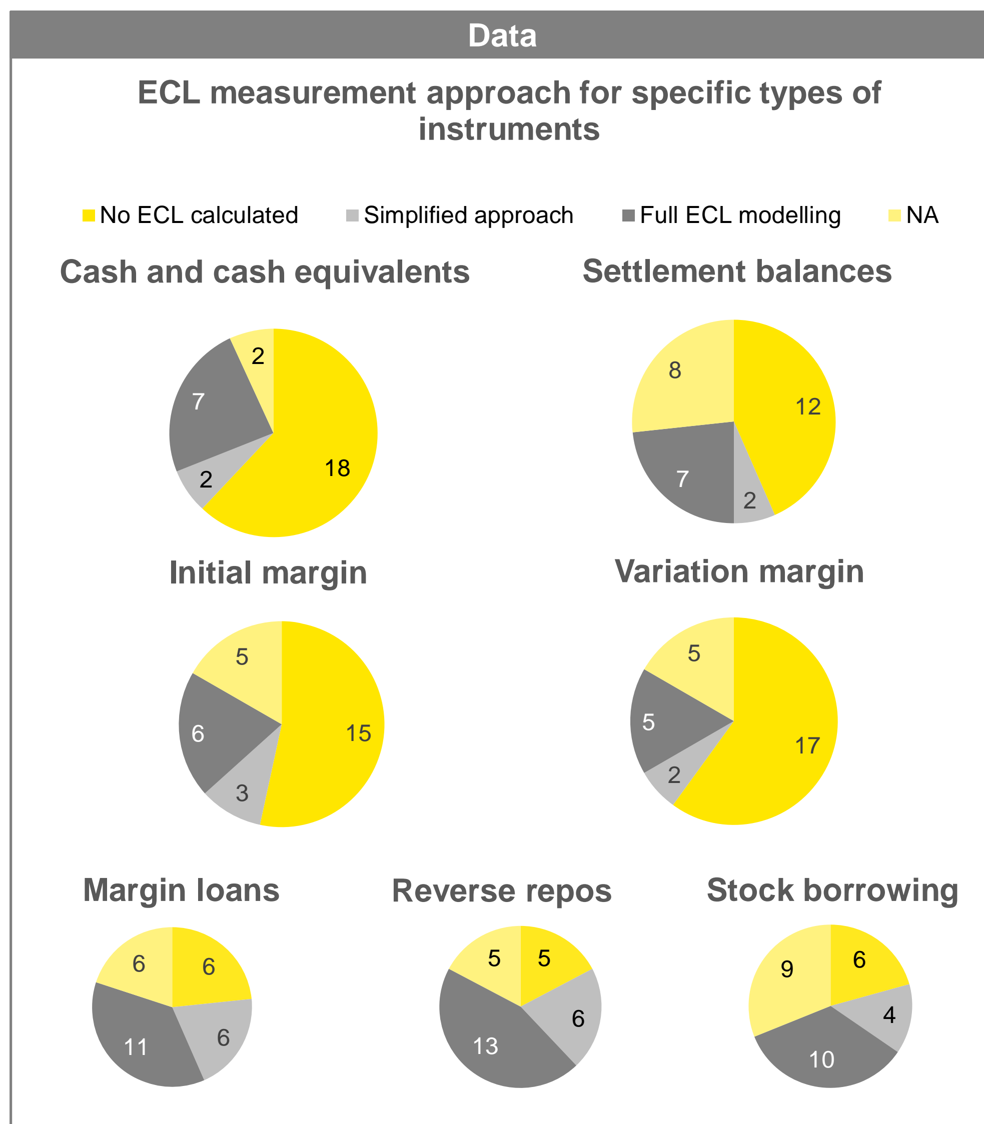
6. Measurement of expected credit loss
Credit card portfolio (continued)



6. Measurement of expected credit loss

ECL measurement approach for specific types of instruments

Data



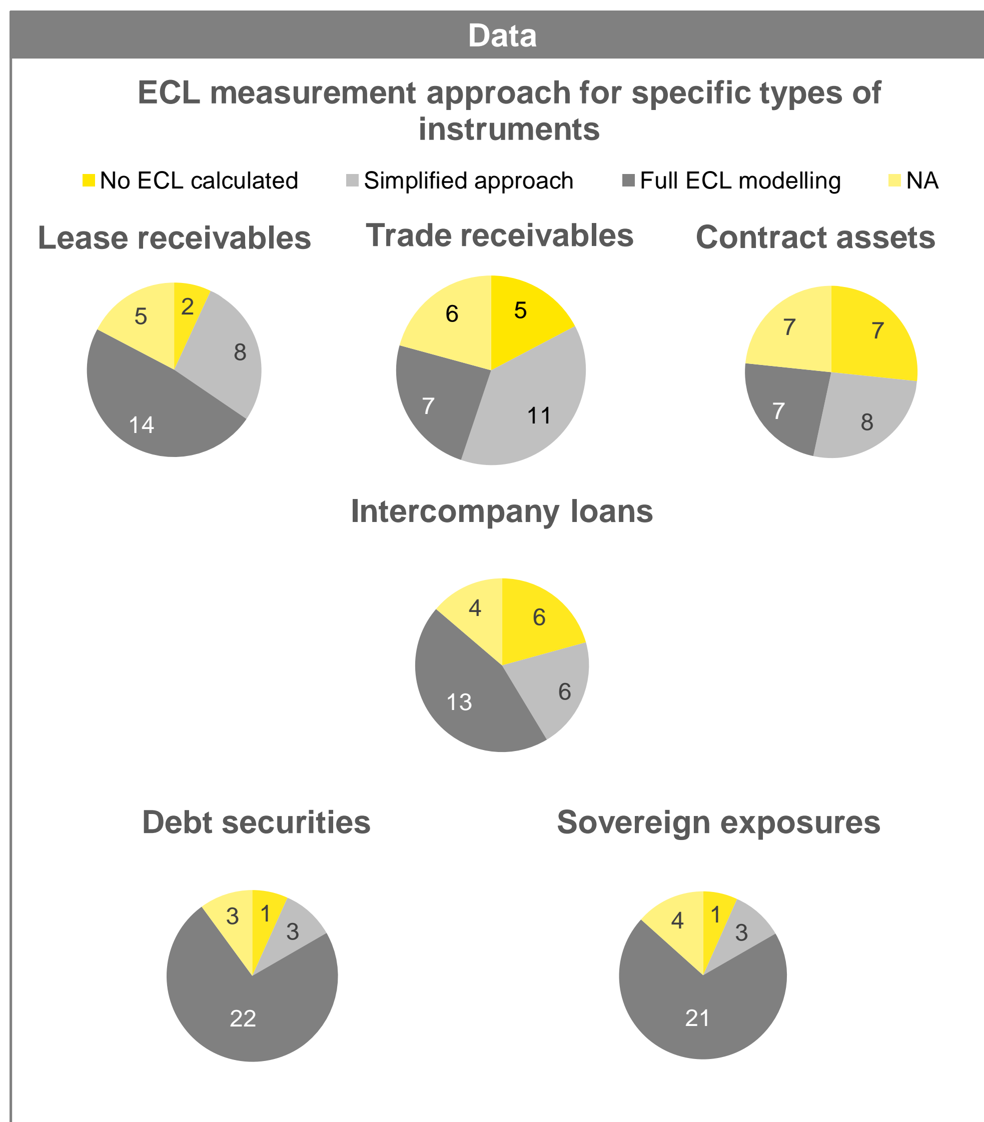
Commentary

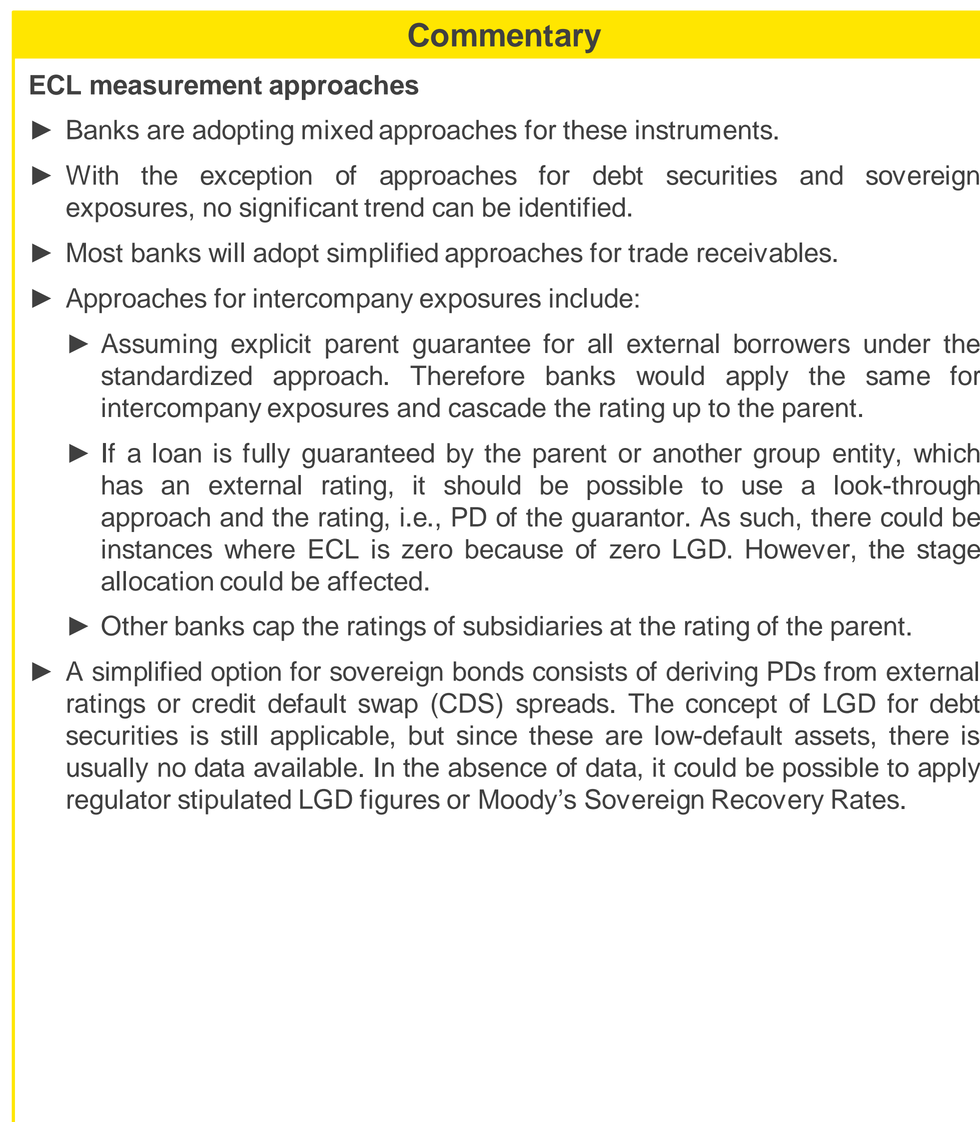
ECL measurement approaches

- There appears to be a mixed range of approaches across different products.
- For most banks, the following instruments are out of scope or a simplified approach will be utilised:
  - Cash and cash equivalents
  - Initial and variation margins
  - Settlement balances
- A number of banks considered these instruments to be out of scope, mainly because of the **short-term nature of these instruments** or the fact that these positions are managed on a daily basis as **part of derivative exposures** and are therefore not measured at amortized cost. Therefore in many instances, no ECL will be calculated for these instruments.
- Conversely, reverse repos and stock borrowing are calculated using full ECL modelling.
- In certain instances, the EAD modeling approach for reverse repos is the same as that used for Basel purposes taking collateral into account.
- Simplified approaches mostly include the low credit risk simplification (i.e., a stage 1 classification) or making use of the 30 DPD backstop only for staging purposes.

6. Measurement of expected credit loss

ECL measurement approach for specific types of instruments (continued)





Commentary

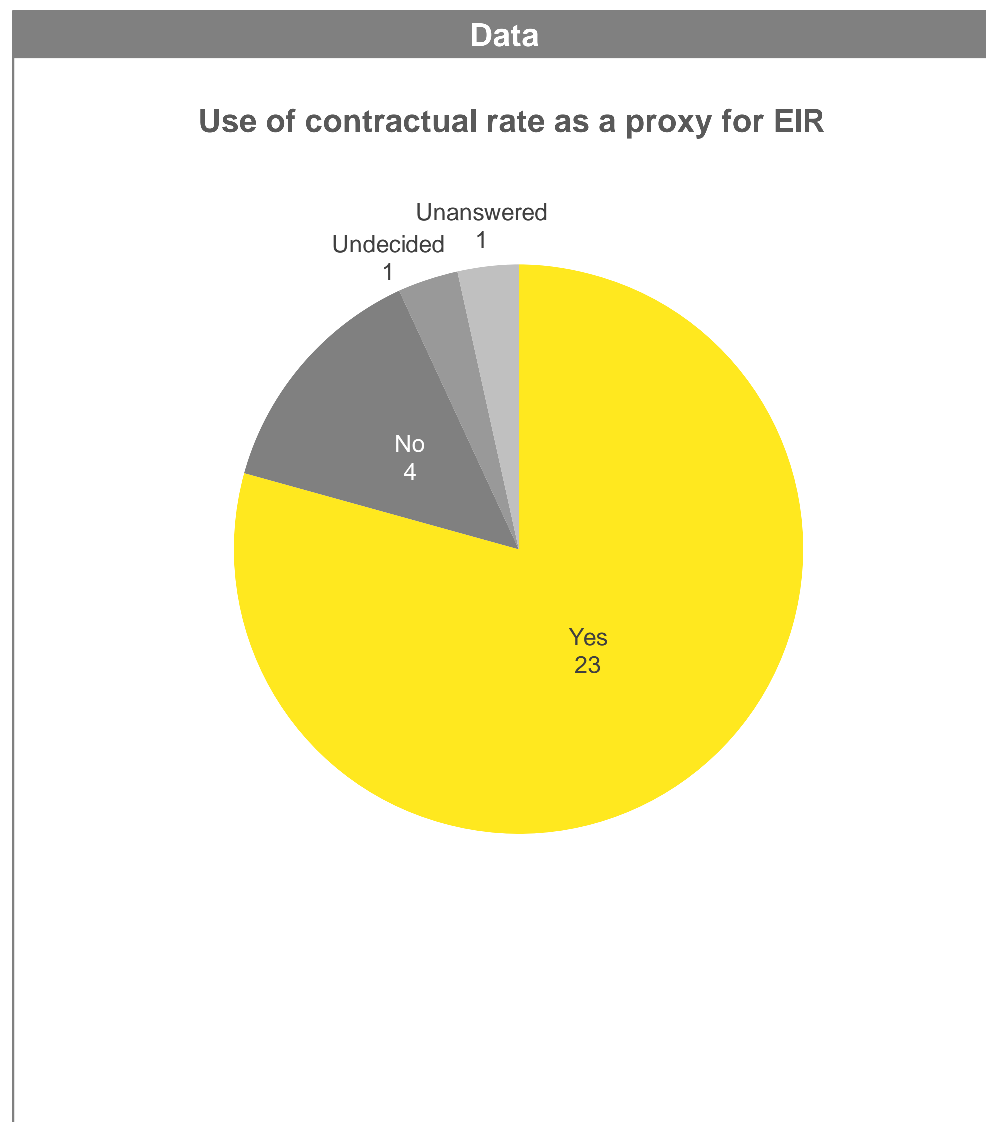
ECL measurement approaches

- Banks are adopting mixed approaches for these instruments.
- With the exception of approaches for debt securities and sovereign exposures, no significant trend can be identified.
- Most banks will adopt simplified approaches for trade receivables.
- Approaches for intercompany exposures include:
  - Assuming explicit parent guarantee for all external borrowers under the standardized approach. Therefore banks would apply the same for intercompany exposures and cascade the rating up to the parent.
  - If a loan is fully guaranteed by the parent or another group entity, which has an external rating, it should be possible to use a look-through approach and the rating, i.e., PD of the guarantor. As such, there could be instances where ECL is zero because of zero LGD. However, the stage allocation could be affected.
  - Other banks cap the ratings of subsidiaries at the rating of the parent.
- A simplified option for sovereign bonds consists of deriving PDs from external ratings or credit default swap (CDS) spreads. The concept of LGD for debt securities is still applicable, but since these are low-default assets, there is usually no data available. In the absence of data, it could be possible to apply regulator stipulated LGD figures or Moody's Sovereign Recovery Rates.

6. Measurement of expected credit loss

Contractual rate as a proxy for effective interest rate (EIR)

Data



Commentary

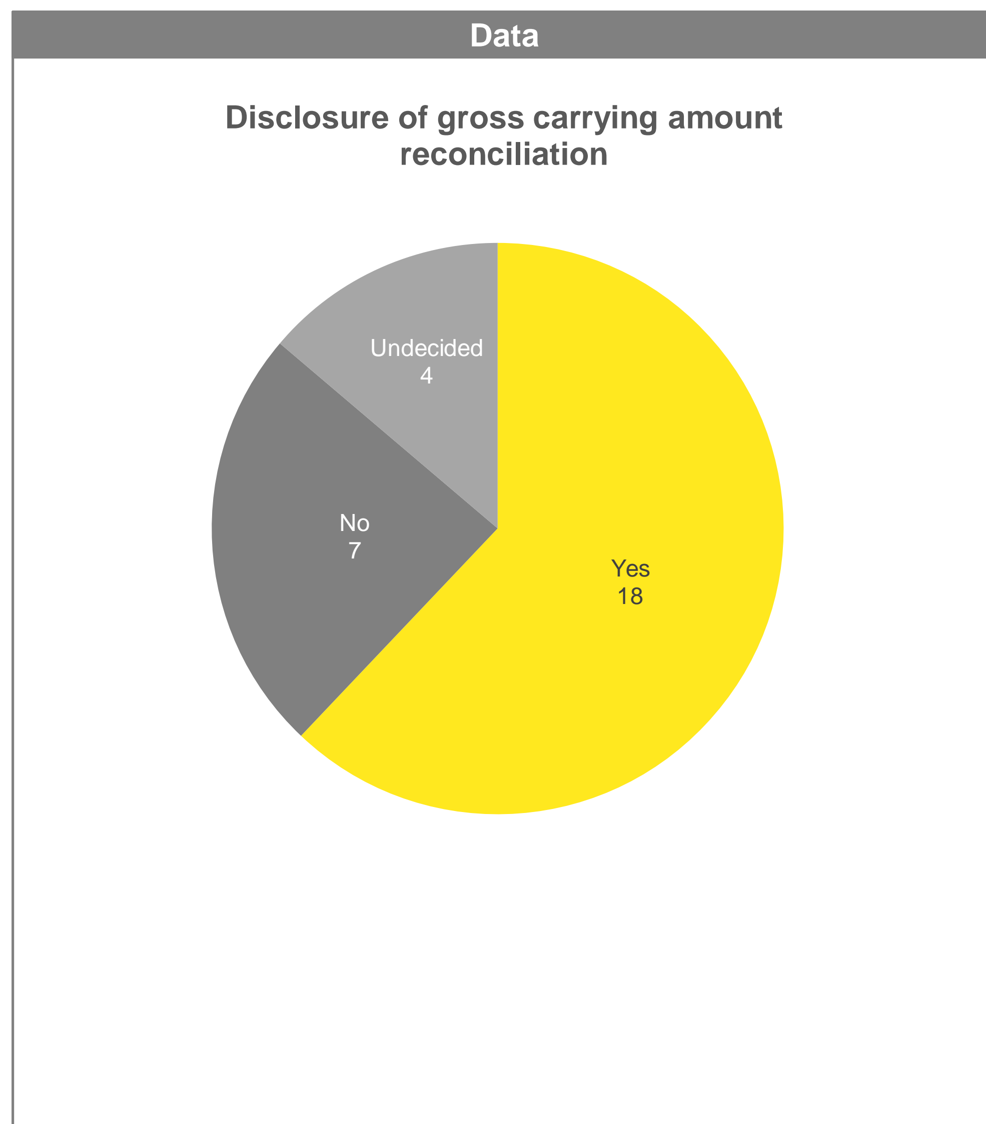
Use of the EIR

- As part of its implementation of IFRS 9, a bank will need to consider whether approximations used in determining EIRs under IAS 39 remain appropriate, given the more significant role that discounting has in measuring impairment under IFRS 9 (e.g., discounting of cash shortfalls that may occur a number of years into the future).
- The majority of banks noted that they will not revisit their current EIR approach as a result of the introduction of IFRS 9, on the basis that there is no material difference to their current approaches.
- The vast majority of the banks are using contractual rate as an approximation of EIR in their ECL calculations.
- Some banks will calculate a new approximation of EIR or will use portfolio-level EIR.
- **In light of the increased importance of discounting rates, banks are expected to further document the non-materiality of the approximations used.** It appears that many institutions are still in the process of doing so.
- Rationale for documenting non-materiality is mainly based on:
  - Sensitivity analysis of the impact of using contractual rate instead of EIR
  - Consistency with the existing framework in place under IAS 39
- Some banks already document and demonstrate this under IAS 39.
- Certain banks will perform periodic reviews to identify differences between EIR and contractual rates, and will determine whether an adjustment is required.

7. Disclosures

Disclosure of gross carrying amount reconciliation

Data



Commentary

Reconciliation of gross carrying amounts by stage allocation

- The disclosure of the movements of gross carrying amount is not an explicit requirement of IFRS 9. However, it is one of the recommendations that has been made by the Enhanced Disclosure Task Force (EDTF), which states that it would contribute to the explanation of the changes in the allowance measured using ECL.
- **On one hand, the majority of banks surveyed will produce a reconciliation of the gross carrying amounts per stage allocation**. This includes most of the large UK and European banks.
- On the other hand, most Canadian banks will not be reporting gross carrying amounts by stage.
- Certain regulators, such as in the UK, are also encouraging additional disclosures to allow for an easier comparison of banks' financial statements.
- The detailed tracking of data and voluminous requirements of IFRS 9 disclosures remain a key challenge.

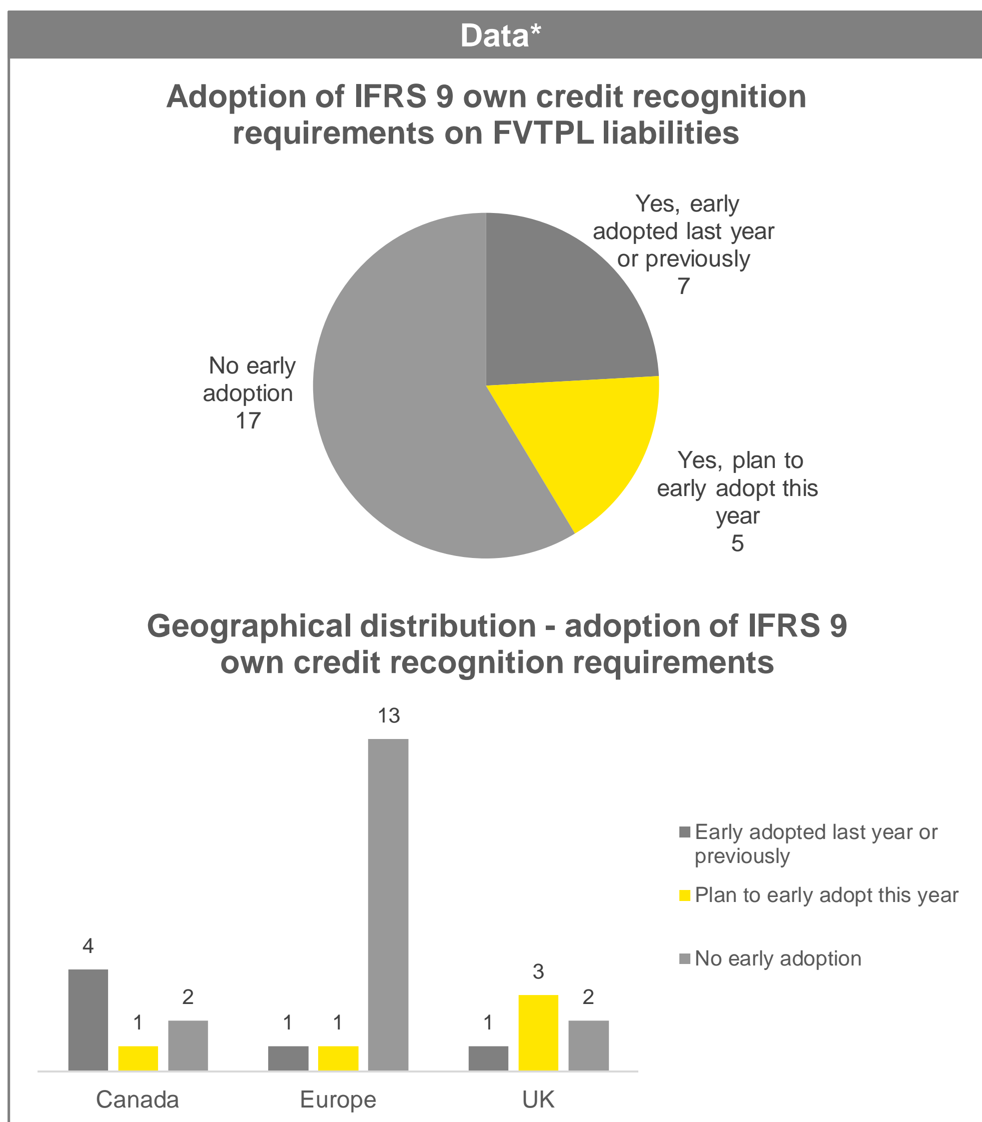
Appendix

The appendix includes the topics below that may not necessarily be directly related to impairment, but are still considered to be key considerations of IFRS 9.

- **Valuation of own credit on fair value through profit or loss (FVTPL) liabilities**
- **IFRS 9 hedge accounting**

Appendix
Valuation of own credit on FVTPL liabilities

Data*



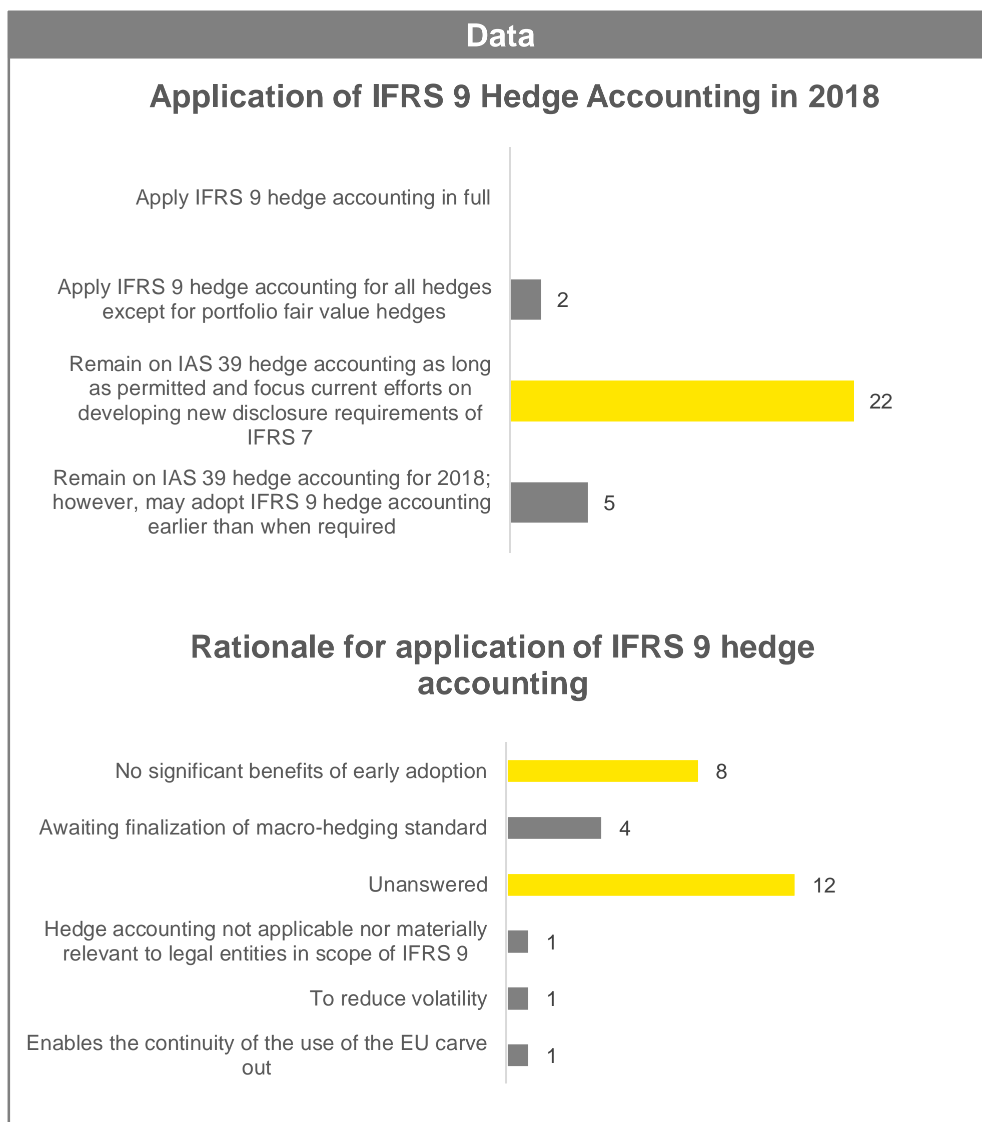
Commentary

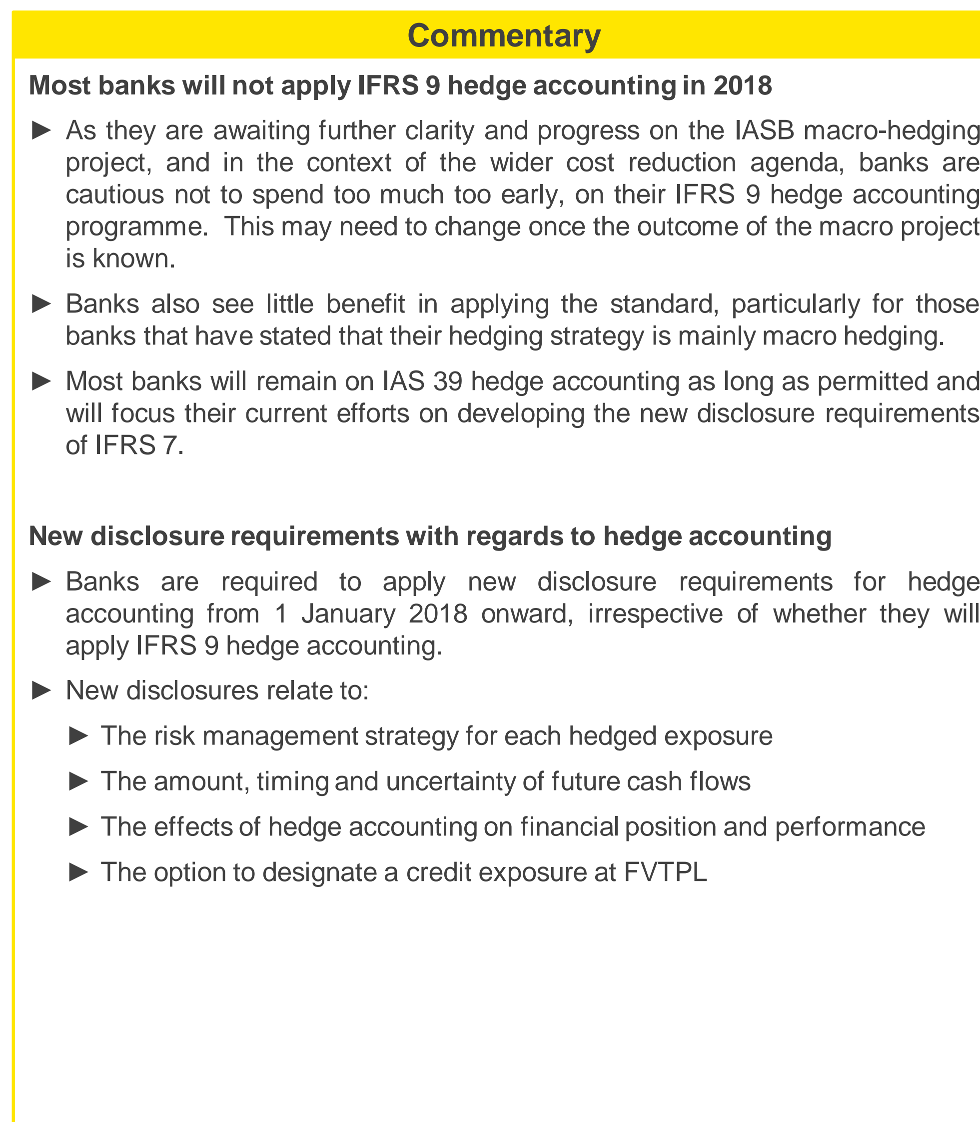
Recognition of own credit risk in other comprehensive income (OCI)

- Most European banks (excluding the UK) will not early adopt the recognition of fair value movements resulting from changes in the bank's own credit on liabilities designated at FVTPL directly within OCI.
- Most of the UK and Canadian banks will early adopt the new recognition methodology, with the latter having already adopted this approach in 2016.

* Data collected from the Australian banks have been excluded in the geographical breakdown to keep confidentiality because of the low number of participants.

Appendix
IFRS 9 hedge accounting





Commentary

Most banks will not apply IFRS 9 hedge accounting in 2018

- As they are awaiting further clarity and progress on the IASB macro-hedging project, and in the context of the wider cost reduction agenda, banks are cautious not to spend too much too early, on their IFRS 9 hedge accounting programme. This may need to change once the outcome of the macro project is known.
- Banks also see little benefit in applying the standard, particularly for those banks that have stated that their hedging strategy is mainly macro hedging.
- Most banks will remain on IAS 39 hedge accounting as long as permitted and will focus their current efforts on developing the new disclosure requirements of IFRS 7.

New disclosure requirements with regards to hedge accounting

- Banks are required to apply new disclosure requirements for hedge accounting from 1 January 2018 onward, irrespective of whether they will apply IFRS 9 hedge accounting.
- New disclosures relate to:
  - The risk management strategy for each hedged exposure
  - The amount, timing and uncertainty of future cash flows
  - The effects of hedge accounting on financial position and performance
  - The option to designate a credit exposure at FVTPL

Glossary

A-IRB	Advanced Internal Rating-Based approach	**KPI**	Key performance indicator
BAU	Business as usual	**LCR**	Low credit risk
BCBS	Basel Committee on Banking Supervision	**LGD**	Loss given default
CET1	Common equity tier 1	**LTV**	Loan-to-value
C&M	Classification and measurement	**MES**	Multiple economic scenarios
CCF	Credit conversion factor	**MI**	Management Information
DPD	Days past due	**PD**	Probability of default
EAD	Exposure at default	**PiT**	Point-in-time
EBA	European Banking Authority	**PMO**	Project management office
ECL	Expected credit loss	**POCI**	Purchased or credit impaired
EDTF	Enhanced Disclosure Task Force	**SAS**	Statistical Analysis System (software suite)
EIR	Effective interest rate	**SEC**	Securities Exchange Commission
FVTPL	Fair value through profit or loss	**SME**	Small and medium enterprises
FVOCI	Fair value through other comprehensive income	**SPPI**	Solely payment of principal and interest
G-SIB	Global systematically important banks	**SOX**	Sarbanes-Oxley Act
IASB	International Accounting Standards Board	**TOM**	Target operating model
IRB	Internal Rating-Based approach	**3LOD**	Three lines of defense

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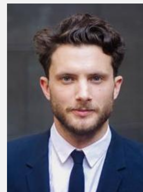

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