Lancaster University
Management School

IFRS 7 FINANCIAL INSTRUMENTS: DISCLOSURES

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Professor Argyro Panaretou
Dr Wendy Beekes
Dr Sam Rawsthorne

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Executive Summary

Introduction

This report presents the findings from a desktop review of credit risk-related disclosures in annual reports for a sample of listed companies that apply IFRS Accounting Standards. The aim of the report is to provide evidence on how these companies disclose credit-risk related information in their reports when applying IFRS 7 *Financial Instruments: Disclosures*. The findings of the report will inform the IASB's Post-Implementation Review (PIR) of the impairment requirements in IFRS 9 *Financial Instruments* and credit risk disclosures in IFRS 7.

We identify substantial diversity in the granularity and disaggregation in credit risk disclosures. The lack of standardised information is often driven by information being presented by class of asset, which is defined by the entities. It is therefore challenging to compare credit risk disclosures across entities. We also note inconsistency in the granularity/disaggregation of information by the same bank across different credit risk disclosures, such as in the disaggregation of the expected credit loss (ECL) allowance, factors determining significant increases in credit risk (SICR), and post model adjustments (PMAs).

Our analysis also highlights several other areas where disclosure could be improved. For banks, these areas concern the disclosure of ECL balances by sector, information on which factors materially triggered movements in ECL, disclosures around the weightings of forward-looking scenarios, and provision of quantitative information on PMAs and the timescale for winding down the PMAs. For corporates, our findings indicate that transparency could be improved around the use of the simplified approach and the use of a provision matrix.

Banks

Significant accounting policies and judgements (Section 2.2)

- When disclosing the accounting policies and methods used to measure ECL, some[1] banks include little or no entity-specific information. We also find that many banks contain material repetition of information across sections in the annual report. Repeating information creates unnecessary clutter in the annual report and makes it challenging for users to identify (new) information. Clearer cross-referencing may improve clarity and usability.
- We found substantial diversity in how banks disaggregate information about credit risk. The lack of standardisation for granularity and disaggregation makes it particularly difficult to compare information between entities. For example, across 30 sample banks, 28 different approaches are used to disclose the breakdown of the ECL allowance. This diversity seems to be largely driven by the fact that this information is presented by class of asset. What determines class of assets is driven by credit risk management practices, and therefore differs from bank to bank.
- While the chosen definition of class of assets may provide the most relevant information for the individual bank, the provision of an additional high level summary table can potentially facilitate comparability between banks. This is an area where it may be useful for the standard to provide more guidance.
- We also note inconsistency in the granularity/disaggregation of information by the same bank across different credit risk disclosures.
- Less than one-third of banks disclose the ECL balance by sector (either by sector only, or by sector and other breakdown). This information would be helpful for users if, for example, they are forecasting a downturn in a specific sector.
- The regulatory environment seems to be a significant driver of disclosure quality, with banks in Europe more likely to provide entity-specific and granular information on ECL.

[1] The following terms are used to broadly indicate the portion of banks in our sample:
(a) almost all— all except a very small minority (more than 90%);
(b) most— large majority, with more than a few exceptions (65%-90%);
(c) many— small majority or large minority (35%-65%);
(d) some— small minority, but more than a few (15%-35%); and
(e) a few—a very small minority (less than 15%).

This raises the question of whether more illustrative examples to help to standardise disclosure need to be provided in IFRS 7, or whether to continue relying on regulators to achieve enforcement of the necessary information disclosure.

Significant increases in credit risk (SICR) (Section 2.3)

- We find that banks generally use the 30 days-past-due (DPD) backstop. Only a few banks in our sample do not state that they nor rebut that presumption. We also find that almost all banks disclose additional factors used to determine SICR.
- However, only a few banks provide information on which of these factors materially triggered movements in ECL. Without such disclosure it is challenging to identify the key factors driving the allocation of loans to Stage 2 and make comparisons across banks. The provision of some examples in IFRS 7 could potentially improve disclosure in this area.
- Another area of disclosure that could be improved is the disaggregation of factors and thresholds used to assess SICR by class of assets. Many banks do not provide any form of disaggregation by class of assets. Identifying the relevant factors for different types of products or by geographic location may yield useful insights given SICR is likely to be assessed differently across these dimensions.

Post-model adjustments (PMAs) (Section 2.4)

- We found that most banks in our sample report the use of PMAs as well as information on the risks driving the recognition of PMAs. However, we find some of the Globally Systemic Banks (G-SIBs) and most of the medium-sized banks that recognise PMAs provide no quantitative information. It is therefore difficult for users to understand the nature and scale of the adjustments.
- We again note substantial variation in disclosure practice across regions: almost all sample entities in Europe and Oceania provide quantitative information on PMAs. Some banks in Asia disclose this information, but none of the sample banks in Africa and North America disclose this.

- Many banks in our sample do not reconcile the opening to closing balance of PMAs, nor do they provide information on the timescale for winding down the PMAs. In such cases, it is not possible for users to understand whether the risks covered by the PMAs are expected to be transitory or whether they will be captured by updating the statistical models in future periods.
- Some banks that recognise PMAs provide a breakdown by asset class, all of which are G-SIBs with headquarters in Europe. However, we often find the way a bank decomposes PMAs is not consistent with the decomposition of other disclosure elements, such as the ECL arising from forward-looking scenarios or SICR thresholds. The inconsistency in disclosure can therefore make it more challenging to understand how the elements of the ECL mirror the modelled calculation.

Use of forward-looking information (FLI) (Section 2.5)

- Almost all banks provide detailed disclosures on the use of FLI. While one bank uses Monte Carlo simulation, most banks rely on between 3 to 5 scenarios and provide clear disclosure of variables and inputs to the scenario(s).
- An area that requires improvement in transparency is the disclosure around scenario weightings. Only 65% of G-SIBs and 50% of medium-sized banks disclose scenario weights. Where the weights are disclosed, we observe a large diversity in the weights allocated across baseline and other scenarios. Some banks clearly explain why the weights were chosen but many do not discuss this. We also note only a few banks explain why scenario weightings changed from the prior year. (See Section 2.5.1)
- Some banks break down economic scenarios by geographic region. Given banks often operate across multiple geographic locations, disaggregating scenarios by geographic location may provide useful information to users. (See Section 2.5.2)

Sensitivity analysis (Section 2.6)

- While not an explicit requirement of IFRS 7, most banks in the sample disclose some form of sensitivity analysis. Most banks completing sensitivity analysis apply 100% weighting to each economic scenario.

- However, we observe substantial diversity in the form of remaining disclosures, including the sensitivity of ECL allowance to changes in forecasted macroeconomic variables or allocating all loans to Stage 2. Disclosure could potentially improve if an explicit requirement for sensitivity analysis was introduced in IFRS 7, and some illustrative examples and supplementary application guidance were provided.

Climate risk (Section 2.7)

- Many banks discuss climate risk with respect to credit risk. Some of those banks clearly state that they consider climate risk in the calculation of ECL. The remaining banks simply discuss the challenges of integrating climate risk into quantitative modelling.
- Of the 11 banks that incorporate climate risk in the calculation of ECL, 7 banks do this in model, while 4 banks do this through PMAs.

<u>Corporates</u>

- Most corporates (80%) provide qualitative disclosures about credit risk management. The extent of credit risk disclosure ranges from 6 pages to just a few paragraphs. (See Section 3.3)
- An entity in the sample reports that their exposure to credit risk is “not substantial” and disclosure is provided that allows users to understand why the exposure is low. We found this an example of good practice. (See Section 3.2)
- Many firms do not disclose the approach used to calculating ECL allowance. Of the 6 firms that clearly indicate the use of simplified approach, 4 (briefly) discuss the use of a provision matrix. (See Section 3.4)
- Almost all corporates provide an ageing analysis of some form. However, we see substantial variation in the breakdown and granularity of the information. The spectrum of disclosures ranges from a single consolidated table, a single table but disaggregated either by product type or geographic location, a separate table for each product type, to a purely narrative disclosure. (See Section 3.5)

1. Introduction

1.1 Background and research objectives

The purpose of this study is to provide academic research support to the IASB's PIR of IFRS 9. Specifically, we review the annual reports from a sample of 40 listed companies to determine how organisations apply the credit risk disclosure requirements of IFRS 7. Acknowledging the differences in credit risk exposure and hence the disclosure, we analyse banks and corporate entities separately. For banks, we focus on disclosures about:

- determining SICR;
- PMAs;
- FLI;
- sensitivity analysis; and
- climate risk included in the measurement of ECL.

For corporates, we focus on disclosures about:

- exposure to credit risk
- the approach used to estimate ECL; and
- the credit quality of assets.

For all entities, we examine the level of detail provided in these disclosures and comparability of the information disclosed.

1.2 Prior Literature

We did not identify any academic papers that focused on the effects of disclosure requirements in IFRS 7 about credit risk. However, we did identify some papers that examine the effects of applying IFRS 7 requirements more broadly, i.e. not limited to credit risk. To some extent, these findings might indirectly inform the application of credit risk disclosure requirements. These papers relate to:

1. <u>IFRS 7 disclosure quality and comparability</u>

Three papers examined the effects of implementing IFRS 7 on disclosure quality and comparability. These papers considered all IFRS 7 mandatory disclosures (rather than focusing

specifically on credit risk) and used samples before the effective date of IFRS 9. Their results may therefore not be directly applicable to the disclosure requirements introduced by IFRS 9 but could indirectly provide information to the PIR.

The first two studies identified cross-country differences in disclosure quality. These differences are attributed, at least partly, to differences in the regulatory environments. The findings were:

a. disclosure quality increased post-implementation of IFRS 7. Further, the focus of disclosures shifted from market risk to credit risk. These results are based on a sample of 171 banks from 28 European countries between 2006 and 2007.[2]
b. the degree of IFRS 7 disclosure comparability, measured by the probability that any pair of randomly selected companies provide the same risk disclosures, was approximately 50% for disclosures on credit and market risk, and 70% for disclosures on liquidity risk. The study used a sample of 546 listed banks over 2007 to 2014 from five countries (Italy, United Kingdom, France, Spain and Germany).[3]

Using a sample of 46 non-financial Italian entities between 2006 and 2008, one study examined whether sensitivity analysis on currency risk required by IFRS 7 conveyed useful information to investors. The researchers found that currency sensitivity analysis reduced investors' uncertainty about the effect of exchange rate risk on entities' expected cash flows. The study measured investors' uncertainty using trading volume.[4]

2. Compliance with IFRS 7 requirements

Two empirical studies examined compliance with IFRS 7 requirements, measuring compliance based on a checklist of items covering all areas of required disclosure in the scope of IFRS 7. Both studies found that compliance was affected by the level of corporate governance. The findings were:

[2] Bischof, J., (2009). The effects of IFRS 7 adoption on bank disclosure in Europe. *Accounting in Europe*, 6(2), 167-194.
[3] Allini, A., Ferri, L., Maffei, M. and Zampella, A. (2017). The comparability of IFRS 7 in the European banking sector. *Corporate Ownership and Control*, 14(4), 8-14.
[4] Bonetti, P., Mattei, M.M. and Palmucci, F. (2012). Market reactions to the disclosures on currency risk under IFRS 7. *Academy of Accounting and Financial Studies Journal*, 16(3), 13-24.

a. financial institutions complied with only 77% of the IFRS 7 requirements. This result was based on a sample of 63 Canadian financial institutions from 2014 to 2016 and compliance was captured using a list of 128 items. The study also found that more compliant banks were those with a larger number of directors in the board and a larger number of non-executive directors.[5]
b. using a list of 77 items to capture compliance, another study reported similar results (with an average compliance of 78.7%). This study used a sample of 48 banks listed in the Gulf Cooperation Council from 2011 to 2017. The study also showed that banks with larger audit committee size, greater audit committee independence, and higher proportion of shares owned by governmental institutions were more likely to comply with the disclosure requirements.[6]

1.3 Data and method

We complete a desk-based review of the annual reports for the entities in our sample. For each entity, we review the disclosures and examine whether (and if so, how) key disclosure requirements are presented. Given the complex nature of the disclosures and the flexibility with which preparers may disclose information, each annual report is read carefully to ensure all relevant items of data are captured (as relevant disclosures are not exclusively made in the notes to the financial statements and can be included throughout the annual report).

We take several steps to minimise the subjectivity and maximise reproducibility of the data collection. First, we apply a scoring template to the data. We record a binary response on whether an item is disclosed in the annual report for a particular entity. In addition, we record narrative comments and image capture relevant disclosures. This allows us to capture the nuances not recorded by the binary scoring template. Second, each member of the research team scored the same two annual reports (one large bank and one corporate) to test the initial coding template and identify any areas which required further attention. These areas were discussed by the research team, and further clarification sought from IASB technical staff where necessary. Following revisions to the scoring template, each member of the research

[5] Mnif, Y. and Znazen, O. (2020). Corporate governance and compliance with IFRS 7: The case of financial institutions listed in Canada. *Managerial Auditing Journal*, 35(3), 448-474.
[6] Yamani, A., Hussainey, K. and Albitar, K. (2021). Does governance affect compliance with IFRS 7?. *Journal of Risk and Financial Management,* 14(6), 239.

team independently scored a further 10 annual reports. We repeated the process of identifying and resolving inconsistencies internally amongst the research team, before seeking further clarification from IASB staff where necessary.

The final analysis comprises 40 entities (18 Globally Systemic Banks [G-SIBs], 12 medium banks and 10 corporate entities) from different geographic locations. Our analysis draws on descriptive statistics and illustrative examples from the annual reports reviewed. The composition of the sample by entity type is shown in Figure 1 and by region in Figure 2. For each entity, we obtain the most recent available annual report and financial statements, almost all of which relate to the financial year 2022.

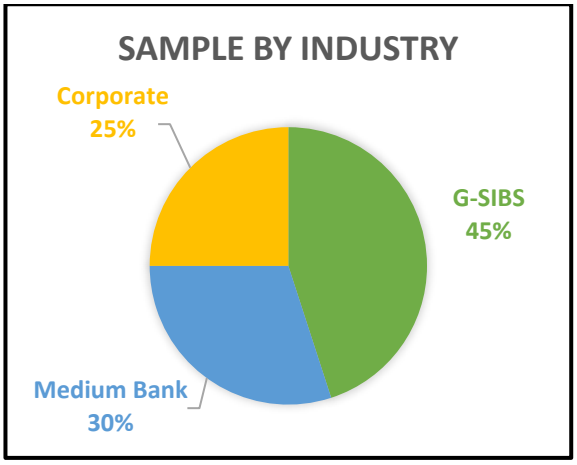


Figure 1

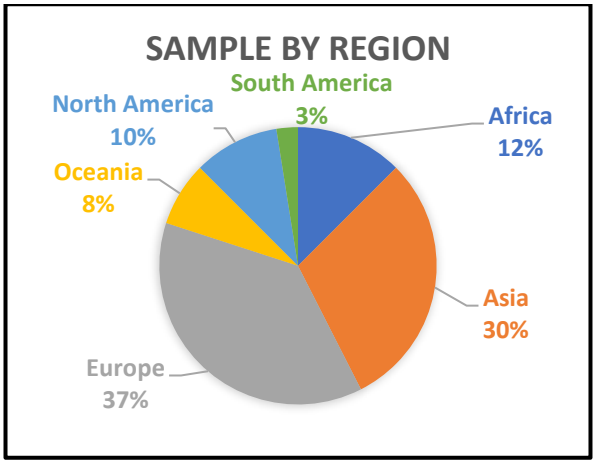


Figure 2

2. Banks

2.1 Sample composition

The sample contains 30 banks and is selected to be representative of geographic location and size. Figures 3 and 4 present pie charts of the bank sample composition by region and size, respectively. Note that the financial statements of the G-SIBs are consolidated from world-wide operations but for simplicity we assign the bank's region based upon the geographical location of their headquarters.

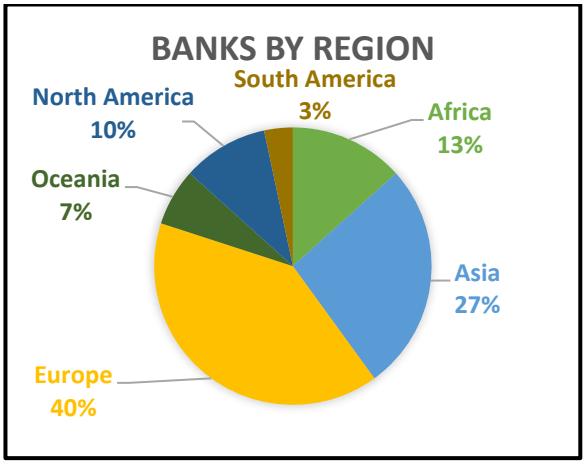


Figure 3

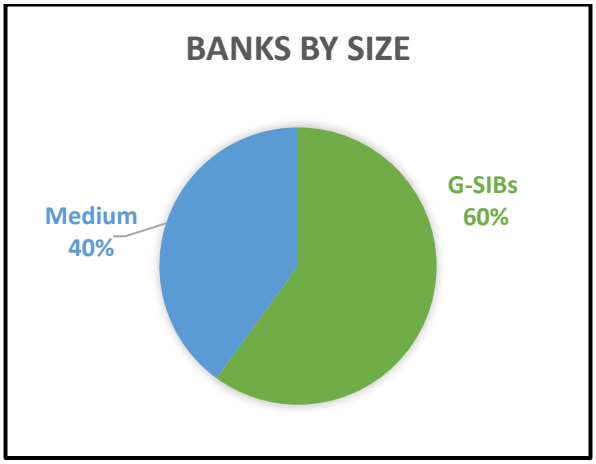


Figure 4

ECL allowance and coverage ratio

All banks except one provide the amount of gross loans to customers and related allowance for Expected Credit Losses (ECLs). Where the gross amount of loans to customers is not readily available, we calculate this by summing the net amount of loans to customers plus allowance for ECLs. The disclosures reveal diversity in the level of allowance for ECLs recognised by different banks. To gain a better understanding into this, we calculate the ratio of allowance for ECLs to gross loans and advances to customers (Figure 5). 50% of medium-sized banks in the sample recognise allowance of a magnitude of between 3% and 5% of the value of total loans to customers. However, approximately one-third of medium-sized banks in our sample recognise allowance of less than 1% of the value of total loans to customers. 17% of G-SIBs recognise allowance for ECLs at less than 1% of the value of total loans to customers and a further 44% of G-SIBs recognise allowance at between 1% and 2% of total loans.

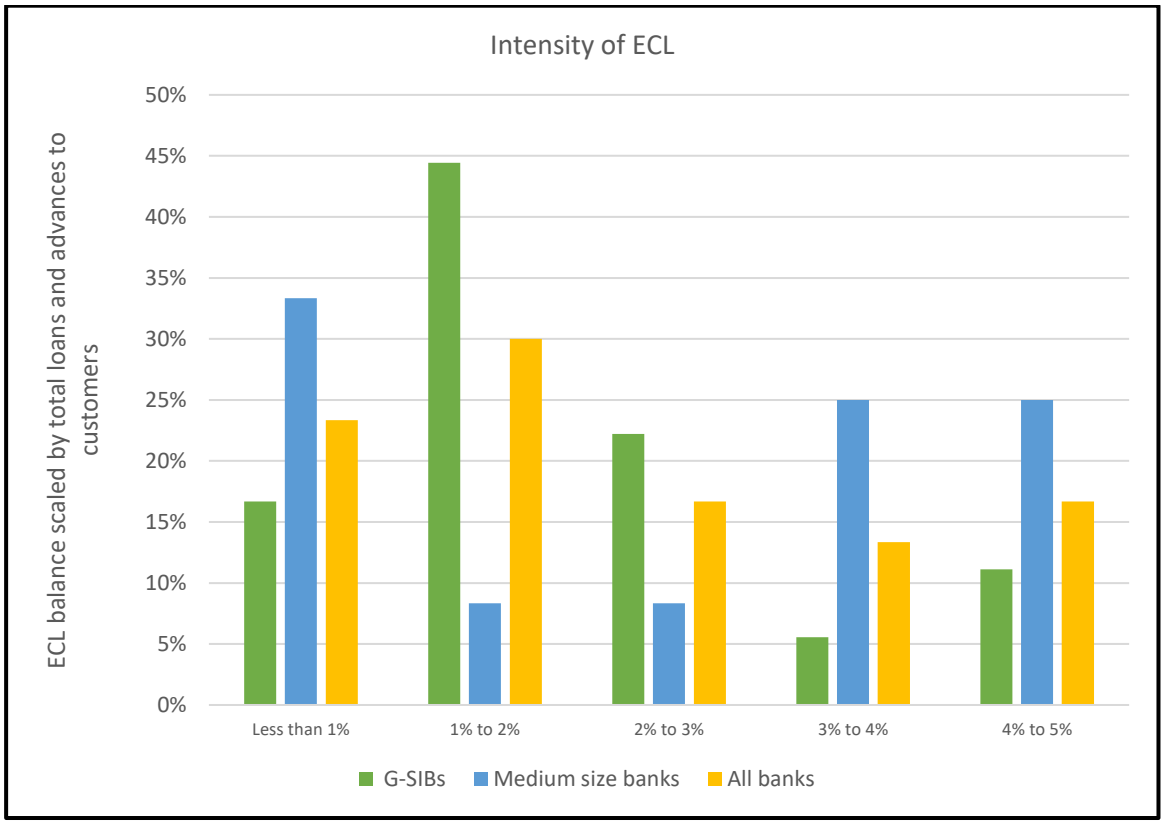


Figure 5

2.2 Significant accounting policies and judgements

All banks in the sample disclose the policies and methods used to measure ECL, although there is diversity in the level of entity-specific information included in the disclosure. For approximately one-fifth of G-SIBs, the relevant section of the annual report contains generic discussion of the accounting policy. Often this is based upon the text used in IFRS 9/IFRS 7 with little or no entity-specific information on the measurement or method used to determine ECL. Similarly, half of medium-sized banks do not provide entity-specific information in their disclosure. In one medium-sized bank, very little information is included about the measurement of ECL in the accounting policy note. Instead, measurement of ECL is discussed in a separate note which is not clearly cross-referenced in the accounting policy note, making it challenging for users to locate all the necessary information. We also observe variation in disclosure practices across different geographic regions. Banks located in Europe (92%) and Africa (75%) are most likely to disclose entity-specific information about the measurement of ECL in the accounting policy note. Banks located in other regions are less likely to disclose

entity-specific information about the measurement of ECL; in Asia (50%), Oceania (50%) and none in South America.

We observe 67% of G-SIBs and 33% of medium-sized banks materially repeat information in different sections of the annual report. The repeated content frequently includes the method applied to calculate ECLs, as well as information on the factors used to determine SICR and the descriptions of FLI, such as the assumed scenarios. We also find repeated descriptions of PMAs (10% of banks) and sensitivity analyses (7% of banks). This repeated information disclosure is usually contained in the Risk Management section (or equivalent) and the notes to the accounts section. In some instances, we also find repetition in the Critical Accounting Estimates and Judgements section. The inclusion of repeated information creates unnecessary clutter in the annual report and makes it more challenging for users to identify (new) information.

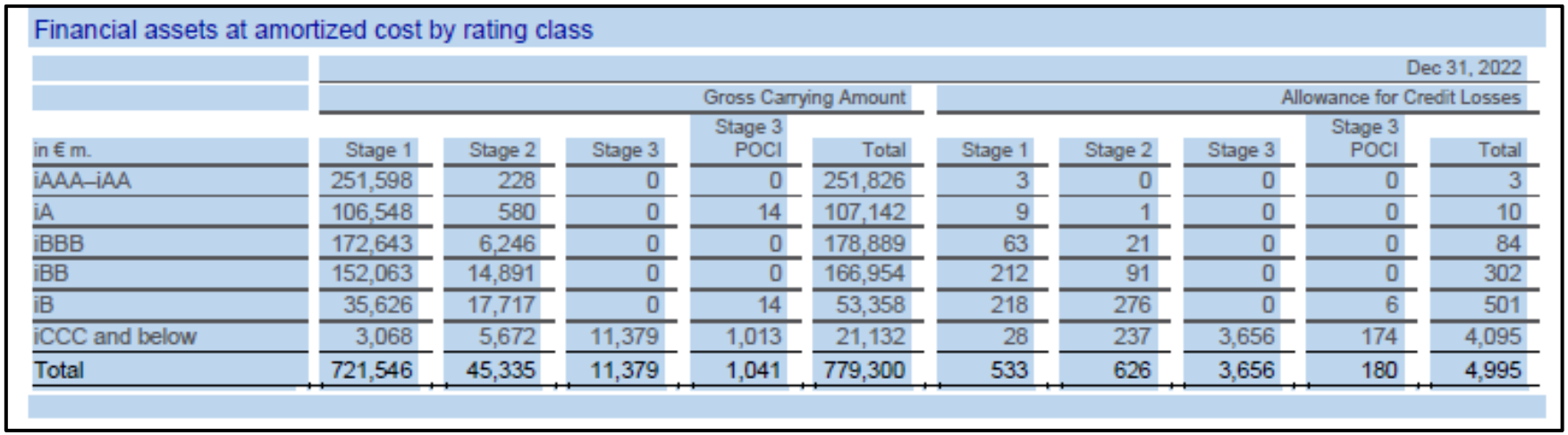
We find all banks in our sample disclose some form of disaggregation of ECL allowance, although there is diversity in how this is presented. Diversity in the level of disaggregation and granularity of ECL allowance, but also of other credit risk related items, seems to be largely driven by the fact that this information is presented by class of asset. What determines class of assets is entity specific, and therefore differs from bank to bank. The most common approach taken is to disaggregate ECL allowance by stage and type of product (57% of banks in our sample). For example, HSBC disaggregates both (gross) total loans and ECL allowance by stage and product (see Example 1). Other approaches to disaggregating this information include: by stage and credit rating (23%) [see Example 2 from Deutsche Bank], by stage and sector (20%), by stage and measurement basis (20%), and by stage and geography (13%). In our sample, ECL breakdown may be segmented by on- versus off-balance sheet, banking division, and secured versus unsecured borrowers. Often these breakdowns are combined with others, such as by stage or geographic location.

Summary of credit risk (excluding debt instruments measured at FVOCI) by stage distribution and ECL coverage by industry sector at 31 December 2022

(Audited)

	Gross carrying/nominal amount[1]					Allowance for ECL					ECL coverage %				
	Stage 1 $m	Stage 2 $m	Stage 3 $m	POCI[2] $m	Total $m	Stage 1 $m	Stage 2 $m	Stage 3 $m	POCI[2] $m	Total $m	Stage 1 %	Stage 2 %	Stage 3 %	POCI[2] %	Total %
Loans and advances to customers at amortised cost	777,543	139,130	19,505	129	936,307	(1,095)	(3,491)	(6,829)	(38)	(11,453)	0.1	2.5	35.0	29.5	1.2
– personal	362,781	48,891	3,340	—	415,012	(562)	(1,505)	(805)	—	(2,872)	0.2	3.1	24.1	—	0.7
– corporate and commercial	353,010	85,521	15,696	129	454,356	(490)	(1,909)	(5,887)	(38)	(8,324)	0.1	2.2	37.5	29.5	1.8
– non-bank financial institutions	61,752	4,718	469	—	66,939	(43)	(77)	(137)	—	(257)	0.1	1.6	29.2	—	0.4
Loans and advances to banks at amortised cost	103,042	1,827	82	—	104,951	(18)	(29)	(22)	—	(69)	—	1.6	26.8	—	0.1
Other financial assets measured at amortised cost	996,489	17,166	797	46	1,014,498	(124)	(188)	(234)	(7)	(553)	—	1.1	29.4	15.2	0.1
Loan and other credit-related commitments	583,383	34,033	1,372	—	618,788	(141)	(180)	(65)	—	(386)	—	0.5	4.7	—	0.1
– personal	239,521	3,686	799	—	244,006	(26)	(1)	—	—	(27)	—	—	—	—	—
– corporate and commercial	241,313	27,323	551	—	269,187	(111)	(166)	(63)	—	(340)	—	0.6	11.4	—	0.1
– financial	102,549	3,024	22	—	105,595	(4)	(13)	(2)	—	(19)	—	0.4	9.1	—	—
Financial guarantees	16,071	2,463	249	—	18,783	(6)	(13)	(33)	—	(52)	—	0.5	13.3	—	0.3
– personal	1,123	11	1	—	1,135	—	—	—	—	—	—	—	—	—	—
– corporate and commercial	11,547	1,793	247	—	13,587	(5)	(12)	(33)	—	(50)	—	0.7	13.4	—	0.4
– financial	3,401	659	1	—	4,061	(1)	(1)	—	—	(2)	—	0.2	—	—	—
At 31 Dec 2022	2,476,528	194,619	22,005	175	2,693,327	(1,384)	(3,901)	(7,183)	(45)	(12,513)	0.1	2.0	32.6	25.7	0.5

Example 1: HSBC Holdings plc, 2022 Annual Report, page 149



Financial assets at amortized cost by rating class

	Dec 31, 2022									
	Gross Carrying Amount					Allowance for Credit Losses				
in € m.	Stage 1	Stage 2	Stage 3	Stage 3 POCI	Total	Stage 1	Stage 2	Stage 3	Stage 3 POCI	Total
iAAA–iAA	251,598	228	0	0	251,826	3	0	0	0	3
iA	106,548	580	0	14	107,142	9	1	0	0	10
iBBB	172,643	6,246	0	0	178,889	63	21	0	0	84
iBB	152,063	14,891	0	0	166,954	212	91	0	0	302
iB	35,626	17,717	0	14	53,358	218	276	0	6	501
iCCC and below	3,068	5,672	11,379	1,013	21,132	28	237	3,656	174	4,095
Total	721,546	45,335	11,379	1,041	779,300	533	626	3,656	180	4,995

Example 2: Deutsche Bank AG, 2022 Annual Report, page 99

Providing disclosure of ECL allowance by sector may be helpful to investors if, for example, they are forecasting a downturn in a specific sector. We find only 28% of G-SIBs and 33% of medium-sized banks disclose the ECL allowance by sector (this can be either by sector only, or by sector and other breakdown). Banks in Europe (42%) in our sample are most likely to provide a sector breakdown of ECL allowance whilst only a handful of banks in North America (33%), Africa and Asia (both 25%) provide this disclosure. However, when disclosures by sector are made, the information disclosed is detailed and we believe provides useful information to users. HSBC (Example 3) disaggregate the gross carrying amount and allowance for ECL across stages and for each sector which is very informative.

As mentioned earlier, diversity in the level of disaggregation and granularity also exist in the reporting of other credit risk related items. For example, while FLI is commonly reported by geography, information on SICR factors and thresholds are reported in five different ways by banks in our sample (by geography, portfolio, type of product, division, and credit quality of the customer). Further, not all disclosures provide the same level of disaggregation. For example, one G-SIBs bank disaggregates the ECL allowance by stage, type of product and credit rating. The same bank disclosed SICR factors and thresholds by type of product while FLI and sensitivity analyses are disaggregated by geography. Finally, information on PMAs is provided by contributing factor. Another G-SIB bank disaggregates ECL allowance by stage, sector, geography, division and credit rating. The same bank provides no disaggregation for SICR and FLI, while it disaggregates PMAs and sensitivity analyses by division (overall group, corporate bank, investment bank, private bank).

Total wholesale lending for loans and advances to banks and customers by stage distribution

	Gross carrying amount					Allowance for ECL				
	Stage 1 $m	Stage 2 $m	Stage 3 $m	POCI $m	Total $m	Stage 1 $m	Stage 2 $m	Stage 3 $m	POCI $m	Total $m
Corporate and commercial	353,010	85,521	15,696	129	454,356	(490)	(1,909)	(5,887)	(38)	(8,324)
– agriculture, forestry and fishing	4,805	1,505	261	–	6,571	(10)	(44)	(68)	–	(122)
– mining and quarrying	6,498	1,463	232	1	8,194	(5)	(21)	(145)	(1)	(172)
– manufacturing	70,187	15,251	2,016	49	87,503	(93)	(164)	(867)	(29)	(1,153)
– electricity, gas, steam and air-conditioning supply	15,006	1,799	277	–	17,082	(11)	(31)	(67)	–	(109)
– water supply, sewerage, waste management and remediation	2,690	277	26	–	2,993	(3)	(5)	(13)	–	(21)
– construction	9,692	2,742	791	7	13,232	(21)	(51)	(368)	(3)	(443)
– wholesale and retail trade, repair of motor vehicles and motorcycles	63,755	15,872	2,805	5	82,437	(96)	(226)	(1,341)	(3)	(1,666)
– transportation and storage	19,227	5,062	556	–	24,845	(31)	(65)	(153)	–	(249)
– accommodation and food	9,873	6,523	787	2	17,185	(23)	(139)	(81)	(1)	(244)
– publishing, audiovisual and broadcasting	16,609	1,537	249	28	18,423	(22)	(36)	(58)	(1)	(117)
– real estate	72,195	24,386	4,834	19	101,434	(86)	(904)	(1,861)	–	(2,851)
– professional, scientific and technical activities	15,164	2,229	542	–	17,935	(21)	(51)	(200)	–	(272)
– administrative and support services	20,592	3,505	962	18	25,077	(25)	(90)	(293)	–	(408)
– public administration and defence, compulsory social security	1,166	14	–	–	1,180	–	(1)	–	–	(1)
– education	1,346	181	87	–	1,614	(4)	(5)	(22)	–	(31)
– health and care	3,055	643	266	–	3,964	(6)	(17)	(67)	–	(90)
– arts, entertainment and recreation	1,264	452	146	–	1,862	(4)	(16)	(57)	–	(77)
– other services	10,391	1,547	589	–	12,527	(26)	(30)	(219)	–	(275)
– activities of households	730	14	–	–	744	–	–	–	–	–
– extra-territorial organisations and bodies activities	47	–	–	–	47	–	–	–	–	–
– government	8,699	506	270	–	9,475	(3)	–	(7)	–	(10)
– asset-backed securities	19	13	–	–	32	–	(13)	–	–	(13)
Non-bank financial institutions	61,752	4,718	469	–	66,939	(43)	(77)	(137)	–	(257)
Loans and advances to banks	103,042	1,827	82	–	104,951	(18)	(29)	(22)	–	(69)
At 31 Dec 2022	517,804	92,066	16,247	129	626,246	(551)	(2,015)	(6,046)	(38)	(8,650)
By geography										
Europe	150,592	28,060	7,070	31	185,753	(223)	(628)	(1,718)	(1)	(2,570)
– of which: UK	*104,595*	*21,489*	*5,432*	*28*	*131,544*	*(186)*	*(501)*	*(1,015)*	*(1)*	*(1,703)*
Asia	293,503	50,826	6,938	81	351,348	(220)	(1,077)	(3,125)	(25)	(4,447)
– of which: Hong Kong	*155,513*	*28,275*	*5,338*	*57*	*189,183*	*(104)*	*(775)*	*(2,136)*	*(22)*	*(3,037)*
MENA	29,512	3,254	1,530	17	34,313	(22)	(49)	(909)	(12)	(992)
North America	31,372	6,950	245	–	38,567	(25)	(197)	(44)	–	(266)
Latin America	12,825	2,976	464	–	16,265	(61)	(64)	(250)	–	(375)
At 31 Dec 2022	517,804	92,066	16,247	129	626,246	(551)	(2,015)	(6,046)	(38)	(8,650)

Example 3: HSBC Holdings plc, 2022 Annual Report, page 171

2.3 Significant Increases in Credit Risk (SICR)

All banks in our sample provide a description of the qualitative or quantitative factors relevant to determining SICR.[7] Specifically, we find 89% of G-SIBs and 83% of medium-sized banks describe quantitative factors, other than 30 DPD. Quantitative factors predominantly comprise changes in the probability of default since its initial recognition, either in absolute terms or by a relative percentage, or changes in the value of collateral.[8] Most banks (80%) provide information on qualitative factors, the most frequent of which is credit risk rating.

[7] One bank only discloses 30 DPD as a factor.

[8] An example of an absolute increase in probability of default (PD) since its initial inception is an absolute increase of 5 basis points above PD at origination (i.e., x = PD + 0.0005). In contrast, an example of a relative percentage change in PD since its initial recognition is a 5% increase in PD (i.e., x = PD * 1.05).

Disclosure of qualitative factors influencing SICR is far more common among G-SIBs (100%) than medium-sized banks (50%). Table 1 shows the qualitative factors disclosed by banks.

Number of banks identifying specific qualitative factor	Qualitative factor identified
15	Credit risk rating
10	Inclusion in internal 'watch list'
6	Macroeconomic conditions
5	Forbearance status
4	Changes to financial status or performance
3	Changes to operations or operational capability; Liquidity strains
2	Consumer indebtedness; Counterparty 'behaviour'; Conditions or position in industry/sector; Employment in distressed industries
1	Credit transition probabilities; Recent past due; Workout status; Contractual terms; Repayment willingness; Expert judgement; Confidence in management; Market indicators of credit risk; Restructuring of business; Credit spread; Loan modification

Table 1

An example of good disclosure practice is UniCredit:

"In more detail among the others qualitative and quantitative elements to be assessed, the following are worth to be outlined:

- *comparison, on a transaction basis, between the PD as of origination date, and the PD as of the reporting date, both calculated according to the internal models and based on a Lifetime view; the thresholds consider all the key variables that can affect the bank's expectation about PD changes over time (e.g., ageing of the credit exposures, residual maturity, PD level at the time of first origination). In the comparison between Lifetime PDs as of origination and reporting dates, beside considering the specific current and forward-looking conditions as a key element affecting the PD comparison, also the repayment structure (specifically bullet/balloon compared to amortizing loans) is taken into consideration in the PD comparison, in order to factor-in higher riskiness of financial instruments with significant repayment at maturity, where the risk of a default occurring may not necessarily decrease as time passes;*
- *further quantitative criteria, in order to support the timely detection of the Significant Increase in Credit Risk, namely:*
  - *threefold increase in lifetime PD - Stage 2 classification is triggered in case the Lifetime PD at the reporting date results higher than three times the one at the inception date of the financial instruments, in line with Supervisory expectations;*
  - *adoption of a threshold value of Basel PD equal or higher than 20% as a Stage 2 criterion - such threshold, adopted considering the benchmark value retrievable within the ECB Asset Quality Review Manual, has the aim to identify financial instruments that, with little room for interpretation, have registered a significant increase of credit risk since inception date and with high risk of migration to default;*
- *absolute elements, such as the backstops required by law (e.g., 30 days past-due): in this case, the Group has chosen not to reject the significant deterioration presumption after 30 days past-due by allocating in Stage 2 transactions with more than 30 days past due;*
- *additional internal assessment, also including renegotiations of financial instruments due to financial difficulties met by the counterparty (e.g., Forborne classification) and certain kinds of credit monitoring watchlist classifications."*

Example 4: UniCredit S.p.A., 2022 Annual Report, page 381

An area of disclosure that could be improved is the disaggregation of factors used to assess SICR. A number of banks (44% of G-SIBs and 33% of medium-sized banks) provide only a very basic disaggregation by portfolio.[9] Identifying the relevant factors for different types of products or by geographic location may yield useful insights given SICR is likely to be assessed differently across these dimensions. Only 39% of G-SIBs and 17% of medium-sized banks breakdown these factors by type of products or by geographic location. All banks disclosing this information are in Africa (50%), Europe (50%) and North America (33%). Approximately half of such disclosures are by product type and the other half by geographic location.

Similarly, not all banks in the sample disaggregate SICR thresholds, such as by type of product or geographical region. We find only 50% of G-SIBs and 25% of medium-sized banks disclose this information. Again, we see variation across geographic regions with such disclosure concentrated in reports from banks in Africa (50%), Europe (75%) and Oceania (50%). Of the entities providing a breakdown, the disaggregation most often takes the form of type of product (33%), although some entities disclose information by type of customer[10] (33%), portfolio (17%), borrower credit rating at inception (17%) and geographic region (8%).

SICR using 30 days past due (DPD)

IFRS 9 contains the presumption that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 DPD. None of the banks surveyed rebutted this presumption. Two banks did not confirm nor rebut the presumption, while all remaining banks confirmed the application of the 30 DPD presumption. Nevertheless, we find a handful of banks for which the 30 DPD backstop is not applied uniformly. For example, UBS (2022 Annual Report, p. 110) apply the 30 DPD backstop except for 'certain exposures' for which a backstop of 90 days past due is applied. Likewise, Groupe BPCE (2022 Annual Report, p. 329) state "additional qualitative criteria are used to classify as Stage 2 all contracts with payments more than 30 days past due (unless the 30-day

[9] Portfolio refers to where banks classify assets at a more aggregate level than by product or customer. For example, Macquarie groups together 'Retail exposures' and 'Wholesale exposures'.

[10] Customer refers to the recipient of the credit. For example, ING disaggregate quantitative SICR thresholds across consumers, business, and governments and financial institutions.

presumption of non-payment is rebutted), rated at-risk or undergoing adjustments or financial hardship if the downgrade to Stage 3 criteria are not met". However, in neither case does the disclosure discuss the nature of the exposures nor the reasons why the 30 DPD is rebutted. Similarly, United Bank for Africa apply the 30 DPD backstop unless the bank has "reasonable and supportable information demonstrating that the credit risk has not increased significantly since initial recognition" (2022 Annual Report, p. 110). The report goes on to provide two instances where this may occur, including when there is dispute between the bank and the obligor where the dispute is not more than 90 days and where the amount past due is no more than 10% of the total amount due.

Stage 2 decomposition

Generally, many banks do not disclose a Stage 2 decomposition. We find only 22% of G-SIBs and no medium-sized banks decomposed Stage 2 by contributing factor. In our sample, only banks in Europe (three from the UK and one from Switzerland) provide this decomposition. A good example is Standard Chartered (Example 5). In this disclosure, there is decomposition of stage 2 gross loans and ECL by SICR factor and banking division. Similarly, we find only 44% of G-SIBs and 8% of medium-sized banks decomposed Stage 2 by arrears status, with disclosure concentrated in North America (67%) and Europe (42%) with some further disclosers in Africa (25%) and Asia (13%).

	2022														
	Corporate, Commercial & Institutional Banking			Consumer, Private & Business Banking			Ventures			Central & other items			Total		
	Gross $million	ECL $million	Coverage %	Gross $million	ECL $million	Coverage %	Gross $million	ECL $million	Coverage %	Gross $million	ECL $million	Coverage %	Gross $million	ECL $million	Coverage %
Increase in PD	13,620	192	1.4%	1,389	89	6.4%	–	–	0.0%	2,973	11	0.4%	17,982	292	1.6%
Non-purely precautionary early alert	3,272	12	0.4%	35	–	0.0%	–	–	0.0%	5	–	0.0%	3,312	12	0.4%
Higher risk (CG12)	653	30	4.6%	18	1	5.6%	–	–	0.0%	2,534	69	2.7%	3,205	100	3.1%
Sub-investment grade	–	–	0.0%	–	–	0.0%	–	–	0.0%	95	11	11.6%	95	11	11.6%
Top up/Sell down (Private Banking)	–	–	0.0%	111	–	0.0%	–	–	0.0%	–	–	0.0%	111	–	0.0%
Others	2,603	41	1.6%	122	4	3.3%	–	–	0.0%	451	7	1.6%	3,176	52	1.6%
30 days past due	–	–	0.0%	146	12	8.2%	47	3	6.4%	–	–	0.0%	193	15	7.8%
Management overlay	–	136	0.0%	–	12	0.0%	–	–	0.0%	–	–	0.0%	–	148	0.0%
Total stage 2	20,148	411	2.0%	1,821	118	6.5%	47	3	6.4%	6,058	98	1.6%	28,074	630	2.2%

Example 5: Standard Chartered plc, 2022 Annual Report, page 254

2.4 Post Model Adjustments (PMAs)

Banks show substantial diversity in whether they recognise PMAs and the associated disclosure. 26 banks in our sample explicitly indicate that they recognise PMAs, while four banks (two G-SIBs and two medium banks) in the sample do not discuss PMAs in the annual financial statements. It is not possible to identify from the disclosures made in reports whether this is because (i) PMAs are not applied or (ii) PMAs are applied but not disclosed. Of the banks recognising PMAs as part of ECL, we find some banks do not provide a clear rationale for the adjustments. In these cases, typical disclosure outlines the reasons that PMAs may be necessary in generic terms, such as sudden changes in the macroeconomic environment not captured by the ECL model or to overcome known model limitations.

Remaining entities disclose more detailed reasons for why PMAs are necessary. Figure 6 presents the number of risks presented as necessitating PMAs in our sample. We find both G-SIBs and medium-sized banks most commonly discuss very few (1 or 2) risks. In Table 2, we tabulate the reasons for PMAs provided by the banks in our sample. The most common risks covered are high inflation, pandemic-related risks and geopolitical uncertainty. We also note that eight banks identify ad hoc adjustments to or recalibrations of ECL models as a reason to recognise PMAs. Further, 25% of medium-sized banks identify model recalibrations as the only reason that PMAs are recognized. However, conditional on the bank directly discussing PMAs, only 31% of entities (including 31% of G-SIBs and 30% of medium-sized banks) disclose an explanation of the governance processes related specifically to the application of PMAs. HSBC provide a good example of such disclosure:

> "*Management judgemental adjustments are reviewed under the governance process for IFRS 9 (as detailed in the section 'Credit risk management' on page 145). Review and challenge focuses on the rationale and quantum of the adjustments with a further review carried out by the second line of defence where significant. For some management judgemental adjustments, internal frameworks establish the conditions under which these adjustments should no longer be required and as such are considered as part of the governance process. This internal governance process allows management judgemental adjustments to be reviewed regularly and, where possible, to reduce the reliance on these through model recalibration or redevelopment, as appropriate"* (HSBC Holdings plc, 2022 Annual Report, page 158).

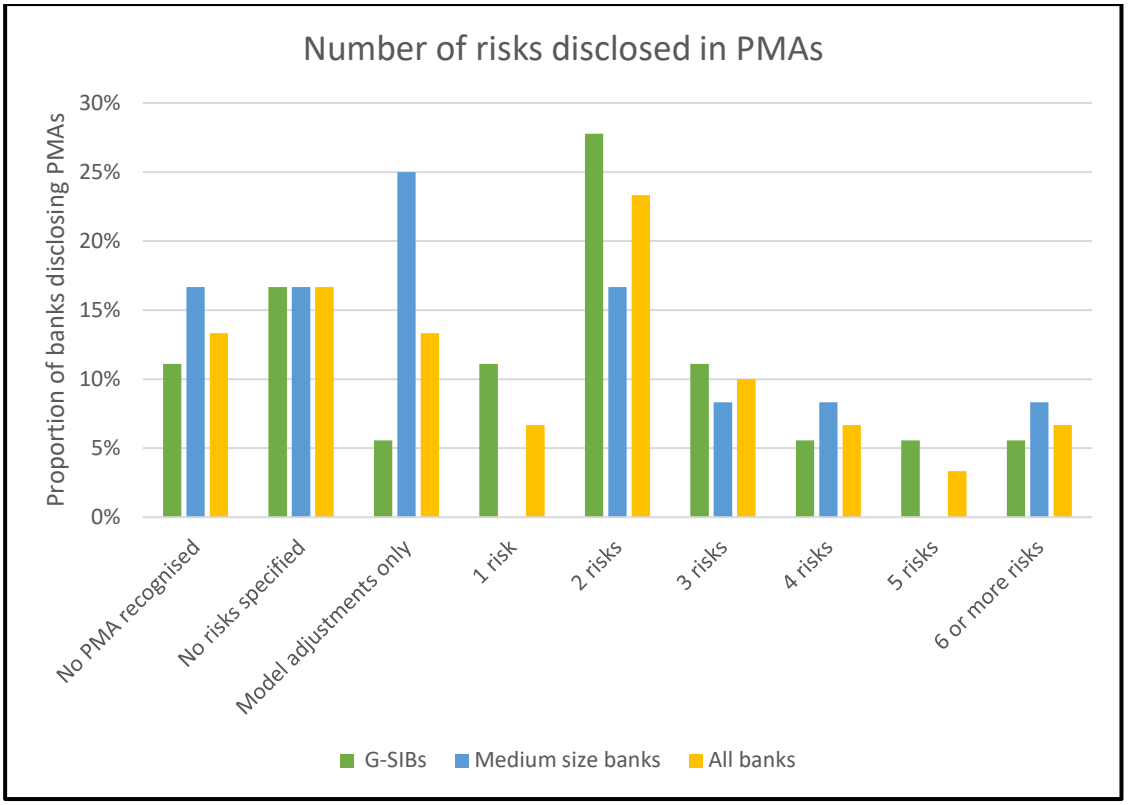


Figure 6

Number of companies identifying risk	Risk(s)
9	Inflation; Pandemic/COVID-19; Geopolitical environment (e.g., Ukraine conflict)
4	Rising interest rates; Supply chains
3	Energy prices
2	Construction risk; Labour shortages; Real estate prices
1	Nitrogen reduction targets; Country defaults; Changes in tax laws; Unemployment; Extreme weather; Climate risk; Sector vulnerability; Atypical late payments; Regulatory and political change

Table 2

Westpac (Australia) discloses very detailed information. This bank discloses the reasons why PMAs are necessary, namely the changes and uncertainty in the economic environment. In addition, they include the policy for unwinding the adjustment, such as the risk changing in the future or adapting the ECL model to capture the risk. Further, the bank discloses quantitative information on the total amount of PMAs and their decomposition by risk factor:

"• $480 million (2021: $90 million) for the Group and $399 million (2021: $90 million) for the Parent Entity for consumers reflecting potential high consumer stress from rising interest rates, higher inflation and higher unemployment;

- *$150 million (2021: nil) for the Group and $123 million (2021: nil) for the Parent Entity relating to certain industries reflecting potential supply chain disruptions and labour shortages;*
- *$70 million (2021: nil) for the Group and $70 million (2021: nil) for the Parent Entity for extreme weather events including the expected impact on customers of recent flooding; and*
- *$0 million (2021: $557 million) for the Group and $0 million (2021: $461 million) for the Parent Entity relating to COVID-19 impacts. Overlay has been completely removed as modelled outcomes now capture the risks."* (Westpac [Australia] Group, 2022 Annual Report, page 198)

Further, of the banks that report PMAs, 31% of G-SIBs and 70% of medium-sized banks provide no disclosure of quantitative information on PMAs, or the percentage of PMAs to total ECL. There is variation in disclosure across geographic location: entities in Europe (83%) and Oceania (100%) more commonly provide quantitative insights, whereas few entities in Asia (33%), Africa and North America (both 0%) disclose any quantitative information.

Information by asset class and stage in PMAs

Most sampled banks do not provide a breakdown of PMAs by class of assets or stage of loan. Conditional on the entity disclosing information on PMAs in some form, 38% of G-SIBs breakdown PMAs by class of assets while only 6% disaggregate PMAs by stage of loan. No medium-sized banks in our sample provide any disaggregation of PMAs. Interestingly, all breakdowns of PMAs are disclosed by entities with European headquarters. Where disclosures are made, information tends to be clear and detailed. An exemplary disclosure in this area is provided by Barclays (2022 Annual Report, p. 315). In consecutive tables, the disclosure first breaks down management adjustments by class of assets (Example 6) before disaggregating further by the stage of loan (Example 7). The disclosures are followed by narrative commentary (not included in this report) explaining both the reasons for adjustments and quantitative information attributing portions of the adjustment to specific factors.

Management adjustments to models for impairment allowance presented by product (audited)[a]

As at 31 December 2022	Impairment allowance pre management adjustments[b] £m	Economic uncertainty adjustments (a) £m	Other adjustments (b) £m	Management adjustments (a+b) £m	Total impairment allowance[c] £m	Proportion of Management adjustments to total impairment allowance %
Home loans	427	4	85	89	516	17.2
Credit cards, unsecured loans and other retail lending	3,543	118	202	320	3,863	8.3
Wholesale loans	1,680	195	(79)	116	1,796	6.5
Total	**5,650**	**317**	**208**	**525**	**6,175**	**8.5**

As at 31 December 2021	£m	£m	£m	£m	£m	%
Home loans	372	72	31	103	475	21.7
Credit cards, unsecured loans and other retail lending	2,798	1,217	145	1,362	4,160	32.7
Wholesale loans	1,628	403	(382)	21	1,649	1.3
Total	**4,798**	**1,692**	**(206)**	**1,486**	**6,284**	**23.6**

Example 6: Barclays plc, 2022 Annual Report, page 315

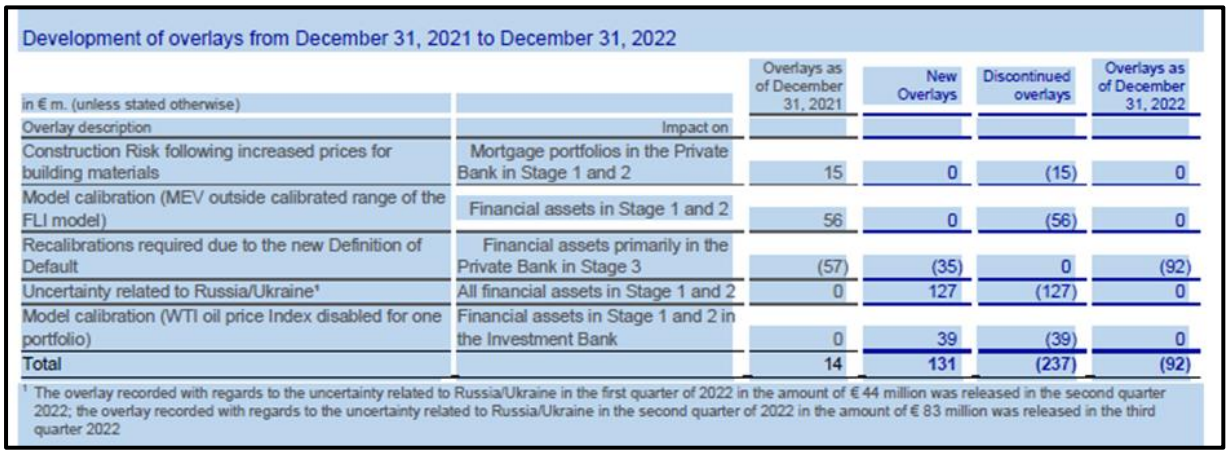
Economic uncertainty adjustments presented by stage (audited)

As at 31 December 2022	Stage 1 £m	Stage 2 £m	Stage 3 £m	Total £m
Home loans	1	3	—	4
Credit cards, unsecured loans and other retail lending	24	93	1	118
Wholesale loans	181	14	—	195
Total	**206**	**110**	**1**	**317**

As at 31 December 2021	Stage 1 £m	Stage 2 £m	Stage 3 £m	Total £m
Home loans	5	35	32	72
Credit cards, unsecured loans and other retail lending	403	803	11	1,217
Wholesale loans	333	70	—	403
Total	**741**	**908**	**43**	**1,692**

Example 7: Barclays plc, 2022 Annual Report, page 315

Further, few banks provide disclosure of the reconciliation of the opening to closing balance of the PMAs. Only 25% of G-SIBs which disclose a PMA include a reconciliation of the PMA and none of the medium-sized banks provide this information. All G-SIB disclosers are from Europe. An exemplary disclosure in this area is provided by Deutsche Bank (Example 8). This disclosure tabulates (i) the opening balance of overlays, (ii) new and discontinued overlays, and (iii) the closing balance for each overlay recognised by management. The disclosure also pinpoints the portfolio and stage of loan impacted by the overlay.



Development of overlays from December 31, 2021 to December 31, 2022

in € m. (unless stated otherwise)		Overlays as of December 31, 2021	New Overlays	Discontinued overlays	Overlays as of December 31, 2022
Overlay description	Impact on				
Construction Risk following increased prices for building materials	Mortgage portfolios in the Private Bank in Stage 1 and 2	15	0	(15)	0
Model calibration (MEV outside calibrated range of the FLI model)	Financial assets in Stage 1 and 2	56	0	(56)	0
Recalibrations required due to the new Definition of Default	Financial assets primarily in the Private Bank in Stage 3	(57)	(35)	0	(92)
Uncertainty related to Russia/Ukraine[1]	All financial assets in Stage 1 and 2	0	127	(127)	0
Model calibration (WTI oil price Index disabled for one portfolio)	Financial assets in Stage 1 and 2 in the Investment Bank	0	39	(39)	0
Total		14	131	(237)	(92)

[1] The overlay recorded with regards to the uncertainty related to Russia/Ukraine in the first quarter of 2022 in the amount of € 44 million was released in the second quarter 2022; the overlay recorded with regards to the uncertainty related to Russia/Ukraine in the second quarter of 2022 in the amount of € 83 million was released in the third quarter 2022

Example 8: Deutsche Bank AG, Annual Report 2022, page 85

Information on the timescale for the wind-down of PMAs is helpful to investors in determining expected risk and if these adjustments will continue into future years. Only 31% of G-SIBs and 30% of medium-sized banks in our sample that report PMAs mention plans to wind-down the PMA(s) or to incorporate these into the ECL model.

2.5 Use of forward-looking Information (FLI)

Two banks in our sample state that scenario analysis is used in evaluating credit risk and calculating the ECL. However, their disclosure is relatively opaque to users as they provide no qualitative nor quantitative information on the number of scenarios, what the scenarios represent, and the assumptions underlying the scenarios. All other banks disclose detailed FLI, including information on forecasted scenarios and weightings across the various scenarios.

Whilst one G-SIB applies Monte Carlo simulation, the remaining banks clearly state the number of scenarios used. However, Figure 7 highlights substantial variation across banks in the number of scenarios used, particularly across G-SIBs. Conditional on such entities disclosing FLI, we find G-SIBs range from 1 to 5 scenarios with 3 scenarios being most common,

shortly followed by 4 and 5 scenarios. In contrast, almost all medium-sized banks used just 3 scenarios. The scenarios used generally take the form of a baseline, upside and downside plus additional downside forecasts. A handful of banks rely on two scenarios which represent a baseline and a downside forecast. In the case of Deutsche Bank, a single baseline scenario is forecast before *"[s]tatistical techniques are then applied to transform the base scenario projections into a probability distribution of the macroeconomic variables. These scenarios specify deviations from the baseline forecasts. The scenario distribution is then used for deriving multi-year PD curves for different rating and counterparty classes…"* (Deutsche Bank AG, 2022 Annual Report, p. 82).

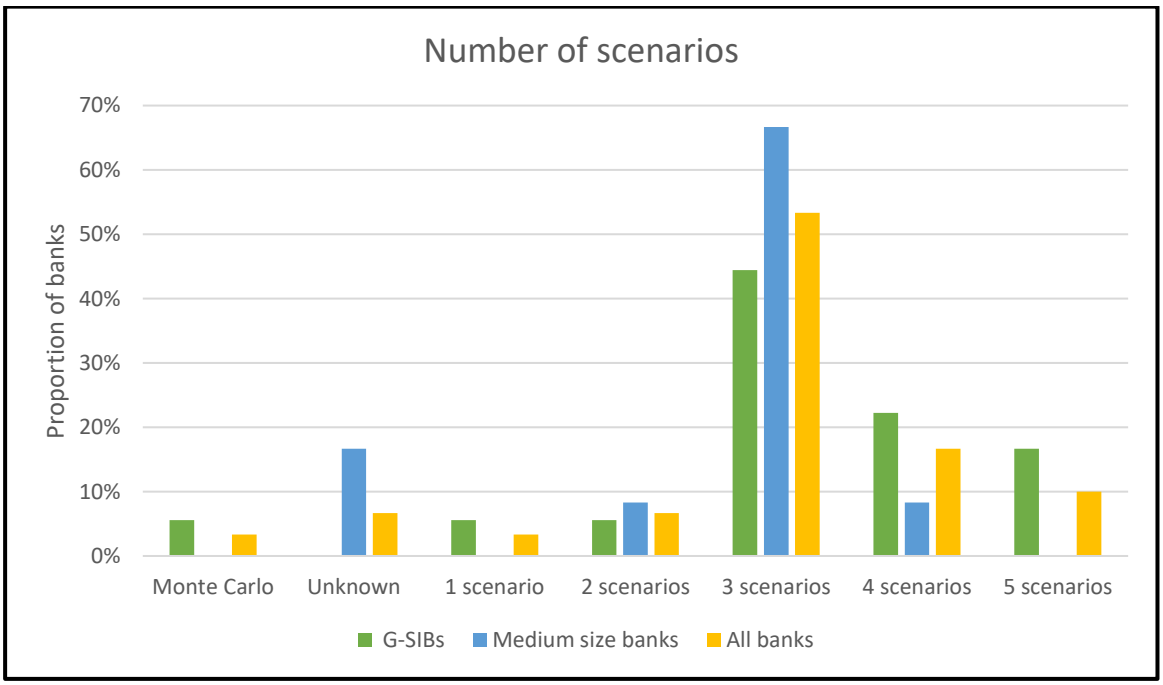


Figure 7

2.5.1 Scenario Weights

An area requiring improvement is the disclosure of the weighting across scenarios in the calculation of ECL. Restricting the analysis to banks using scenario analysis, we find only 65% of G-SIBs and 50% of medium-sized banks disclose this information. Figure 8 plots the weights applied to each scenario, ranging from the most pessimistic scenario ("Downturn 3") to the most optimistic scenario ("Upturn 2"). Note that where an entity discloses the weights disaggregated by region, we include in the plot the weightings for the first geographic region appearing in the annual report. For the subsample of banks disclosing the individual scenario weights used, we find the greatest weighting is always applied to the baseline case. However,

there appears substantial variation across banks in the weighting of the baseline case, as this ranges from 34% to 75% in our sample. Also, in all but one case (Barclays) we note the weighting applied to downturn scenario/s is greater than or equal to those applied to upside scenario/s.

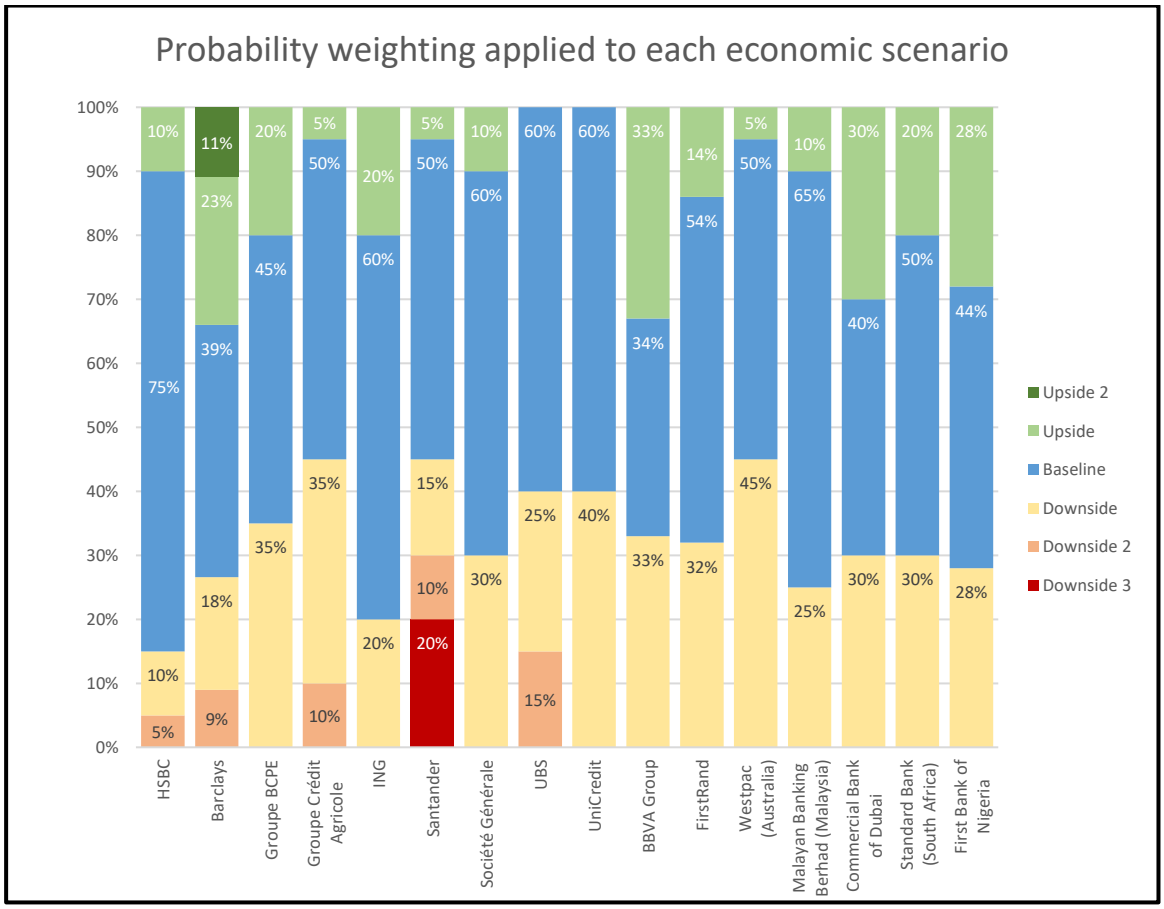


Figure 8

Rather than providing quantitative information on the weightings applied to economic scenarios, some banks in our sample provide narrative information. For example, Macquarie Bank (2023 Annual Report, p. 178-179) describe the weight applied to the baseline scenario as "probable", upside scenario as "unlikely", and both downside and severe downside as "possible". Similarly, BNP Paribas (2021 Annual Report, p. 53) assign a weight of 50% to the baseline scenario while "*the weight of the two alternative scenarios [upside and downside scenarios] is defined according to the position in the credit cycle... the adverse scenario carries a higher weight in the situations at the upper end of the cycle than in the situations at the lower end of the cycle, in anticipation of a potential downturn in the economy*". It is not clear

whether such qualitative discussion of scenario weightings provides meaningful information to users or whether this is comparable with other banks.

While 47% of G-SIBs disclose the method used to determine scenario weights, we find only 25% of medium-sized banks disclose the same information. Nevertheless, where disclosure is made, we find substantial variation in the granularity of the disclosure. For example, some banks (HSBC and Agricultural Bank of China) simply state that weights are determined based on statistical analysis and/or expert judgements. We also identify four banks that discuss scenario weightings, but they don't actually disclose the weights applied, resulting in boilerplate disclosure. On the other hand, some entities provide detailed information. An exemplary disclosure in this area is provided by Barclays which provide clear disclosure of how weightings are determined:

> *"The methodology for estimating scenario probability weights involves simulating a range of future paths for UK and US GDP using historical data with the five scenarios mapped against the distribution of these future paths. The median is centred around the Baseline with scenarios further from the Baseline attracting a lower weighting before the five weights are normalised to total 100%. The same scenarios used in the estimation of expected credit losses are also used to inform Barclays' internal planning"* (Barclays plc, 2022 Annual Report, page 317)

There is little disclosure amongst banks in our sample confirming whether the weightings of the scenarios changed or remained the same as in previous years. Only 18% of G-SIBs and 8% of medium-sized banks provide an explanation of why weightings changed or stayed the same relative to previous years. Reasons commonly provided for adjusting scenario weights relate to deteriorations in macroeconomic outlook and increased uncertainty around the impact of headwinds. An example of good disclosure is from Westpac which identifies the weighting across scenarios in the calculation of ECL (Example 9). Here, the entity also provides narrative information explaining the changes to the weighting structure.

The following table indicates the weightings applied by the Group and Parent Entity:

Macroeconomic scenario weightings (%)	2022	2021
Upside	5	5
Base	50	55
Downside	45	40

The increase in weighting to the downside reflects an elevated level of uncertainty in potential credit losses driven by new geopolitical and economic headwinds, supply chain disruptions, capacity constraints and rising inflation.

Example 9: Westpac [Australia] Group, 2022 Annual Report, page 197

Some banks also disaggregate probability weightings for scenarios. For example, both HSBC and Santander disclose the probability weighting for each scenario by geographic location. This can be seen below in Example 10 for HSBC. In addition to forecasts of key macroeconomic variables, the probability weighting is disclosed for each geographical segment. Similar tables (not reproduced in this report) are disclosed by HSBC for alternative scenarios.

The following table describes key macroeconomic variables and the probabilities assigned in the consensus Central scenario.

Central scenario 2023–2027

	UK %	US %	Hong Kong %	Mainland China %	Canada %	France %	UAE %	Mexico %
GDP growth rate								
2023: Annual average growth rate	(0.8)	0.2	2.7	4.6	0.6	0.2	3.7	1.2
2024: Annual average growth rate	1.3	1.5	3.0	4.8	1.9	1.6	3.7	2.0
2025: Annual average growth rate	1.7	2.0	2.7	4.7	2.0	1.5	3.1	2.3
5-year average	1.1	1.5	2.7	4.6	1.6	1.2	3.2	1.9
Unemployment rate								
2023: Annual average rate	4.4	4.3	3.7	5.2	6.1	7.6	2.9	3.7
2024: Annual average rate	4.6	4.5	3.5	5.1	5.9	7.5	2.8	3.7
2025: Annual average rate	4.3	4.2	3.4	5.0	6.0	7.3	2.8	3.5
5-year average	4.3	4.2	3.4	5.0	5.9	7.3	2.8	3.6
House price growth								
2023: Annual average growth rate	0.2	(2.5)	(10.0)	(0.1)	(15.6)	1.8	5.9	7.9
2024: Annual average growth rate	(3.8)	(3.2)	(3.0)	2.9	(1.2)	2.0	5.2	5.2
2025: Annual average growth rate	0.7	(1.0)	1.7	3.5	4.0	3.1	4.5	4.2
5-year average	0.4	(0.7)	(1.0)	2.9	(1.1)	2.8	4.4	5.1
Inflation rate								
2023: Annual average rate	6.9	4.1	2.1	2.4	3.5	4.6	3.2	5.7
2024: Annual average rate	2.5	2.5	2.1	2.2	2.2	2.0	2.2	4.1
2025: Annual average rate	2.1	2.2	2.0	2.2	2.1	1.8	2.1	3.7
5-year average	3.1	2.7	2.1	2.2	2.4	2.4	2.3	4.2
Probability	60	70	55	55	70	60	70	70

Example 10: HSBC Holdings plc, 2022 Annual Report, page 155

2.5.2 Variables and other inputs

Disclosure of variables and other inputs to the scenario are important for determining consistency of information across banks. 88% of G-SIBs and 92% of medium-sized banks in the subsample disclose variables and inputs for the baseline scenario and other scenarios. Generally, entities disclose detailed information outlining the input variables and expectations of how they are likely to change in subsequent years. Figure 9 plots the length of the forecast period. Most G-SIBs disclose a detailed forecast over a 3-year or 5-year horizon whereas medium-sized banks instead disclose forecasts with a 3-year horizon. We also find variation in how the information is presented across banks. Example 11 presents an extract from First Rand which uses a tabular format to disclose inputs by geographic location and portfolio. This is a useful summary and is easy for the user to follow. Alternatively, the disclosure by Royal Bank of Canada in Example 12 presents expectations graphically, which is also easy for the user to interpret. Both disclosures are enhanced by including expectations from the previous financial year as a benchmark.

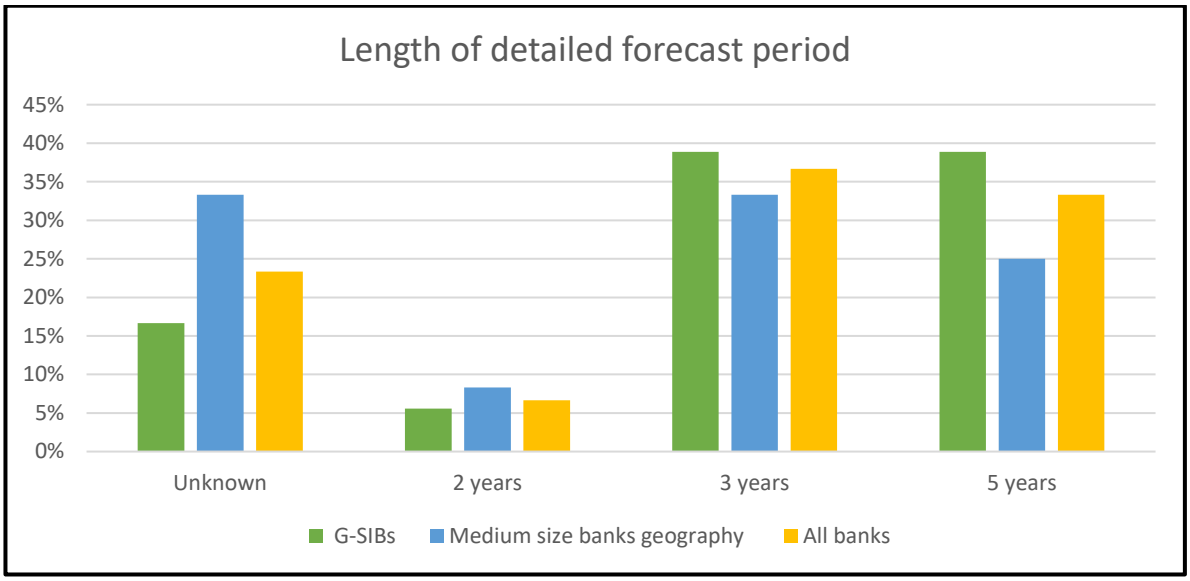


Figure 9

30 June 2022

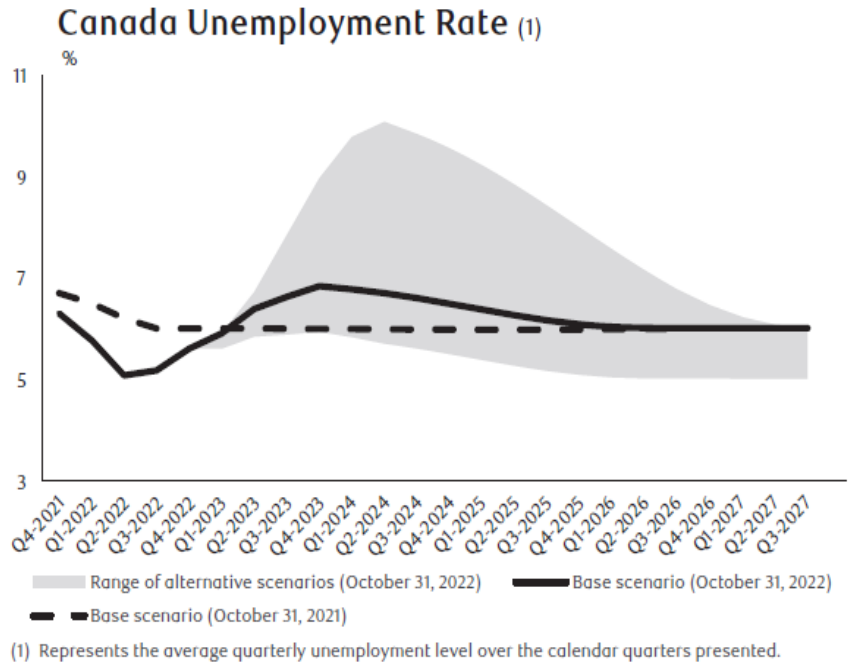
South Africa (%)	Upside scenario			Baseline expectation			Downside scenario		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Applicable across all portfolios									
Real GDP growth	3.50	3.20	3.10	2.00	1.60	1.60	(2.70)	(0.90)	(0.90)
CPI inflation	5.60	4.40	4.40	6.40	4.60	4.60	9.90	9.30	5.80
Repo rate	5.75	5.25	5.25	5.75	5.75	5.75	10.00	10.00	7.50
Retail-specific									
Retail real income growth	2.30	2.40	2.80	1.30	1.20	1.50	(1.70)	(0.70)	(0.90)
House price index growth*	5.90	6.40	7.00	3.40	3.20	3.60	(4.50)	(1.70)	(2.10)
Household debt to income	67.40	68.20	68.60	66.40	66.60	66.70	65.40	64.90	64.60
Employment growth	0.80	0.60	0.90	0.50	0.30	0.50	(0.60)	(0.20)	(0.30)
Wholesale-specific									
Fixed capital formation	2.10	7.20	6.80	1.20	3.60	3.50	(1.60)	(1.90)	(2.00)
Foreign exchange rate (USD/ZAR)	13.30	13.90	14.50	15.70	16.40	17.10	23.60	23.00	20.50

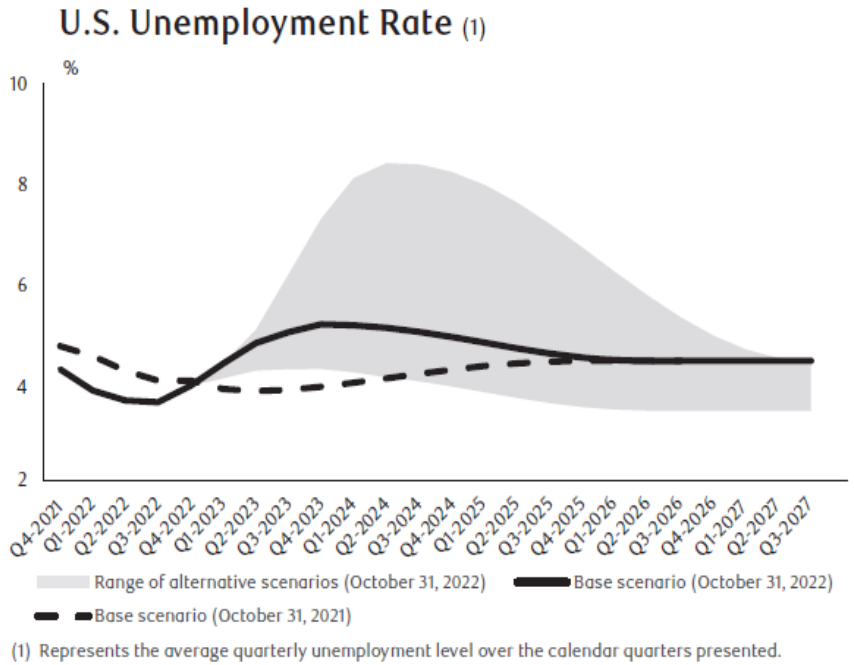
* *Applicable to the secured portfolio.*

(%)	South Africa – significant macroeconomic factors relevant to the temporary stress scenario						
	Real GDP growth	CPI inflation	Repo rate	Retail real income growth	House price index growth*	Household debt to income	Employment growth
2023	(4.10)	13.10	12.50	(2.60)	(6.80)	64.80	(1.00)
2024	(2.10)	13.80	14.00	(1.60)	(4.10)	63.90	(0.40)
2025	(2.10)	11.00	12.00	(2.00)	(4.90)	63.20	(0.60)

Example 11: First Rand, 2022 Annual Report, page 89

- ***Unemployment*** – In our base forecast, calendar Q4 2022 unemployment rates are expected to rise to 5.6% in Canada and 3.9% in the U.S., peaking by Q4 2023 at 6.8% in Canada and 5.1% in the U.S., and reverting to the long run equilibrium towards the latter end of the forecast horizon.





Example 12: Royal Bank of Canada, 2022 Annual Report, page 179

An area that disclosure could be improved is the disaggregation of economic scenarios. Specifically, we find that only 35% of G-SIBs and 25% of medium-sized banks break down economic scenarios by geographic location. Given banks often operate across multiple geographic locations, disaggregating scenarios by geographic location may provide useful information to users.

2.6 Sensitivity Analysis

Banks generally disclose sensitivity analysis of ECL to changes in economic variables of some form. We find 94% of G-SIBs and 58% of medium-sized banks make some form of disclosure on sensitivity analysis. However, we find substantial variation in the detail of the disclosure and the form of disclosure. Figure 10 plots the forms of sensitivity analysis by the type of bank.

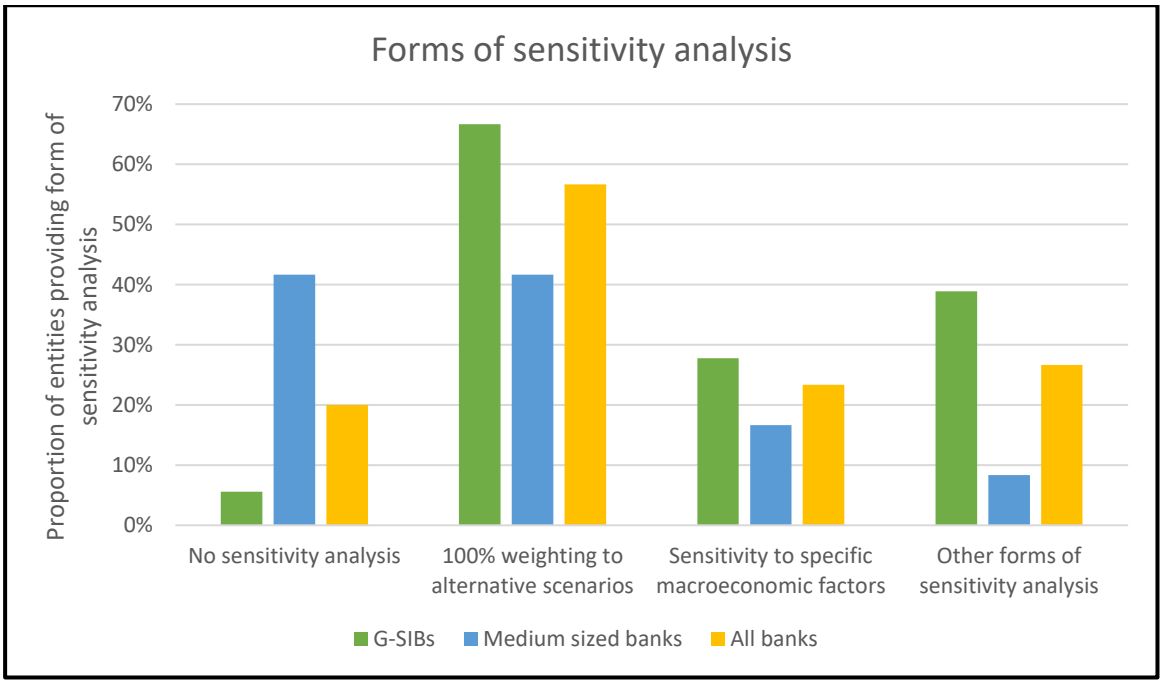


Figure 10

The most common sensitivity analysis performed by the banks in our sample is the application of 100% weighting to the alternative scenarios. A representative example of the typical disclosure is provided by Westpac whose annual financial statements present the value of the ECL when 100% weighting is applied to various scenarios, as presented in Example 13. Disclosing the estimated ECL balance may provide more precise information to users, particularly when presented alongside sensitivity analysis from the previous reporting year.

The following sensitivity table shows the reported provision for ECL based on the probability weighted scenarios and what the provisions for ECL would be assuming a 100% weighting to the base case scenario and to the downside scenario (with all other assumptions, held constant).

$m	Consolidated 2022	Consolidated 2021	Parent Entity 2022	Parent Entity 2021
Reported probability-weighted ECL	4,625	4,999	4,080	4,263
100% base case ECL	2,983	3,411	2,582	2,877
100% downside ECL	6,680	7,399	5,947	6,354

Example 13: Westpac [Australia] Group, 2022 Annual Report, page 197

While the disclosure by Westpac is representative of the average disclosure, some banks provide a more detailed breakdown. Of those banks providing some form of sensitivity analysis, only 47% of G-SIBs and 14% of medium-sized banks break down sensitivity analysis by geographic location or product type. For example, ING (Example 14) split the sensitivity analysis by geographic region. The disclosure also clearly summarises for each geographic region the forecasts for key economic variables, the 100% weighted ECL for the scenario, the probability weighting and the weighted ECL.

Sensitivity analysis as at December 2022 (*)

		2023	2024	2025	Un-weighted ECL (€ mln)	Probability-weighting	Reportable ECL (€ mln)[1]
Netherlands	Real GDP	2.2	2.3	2.9			
	Unemployment	4.0	3.9	3.8	274	20%	
Upside scenario	HPI	13.0	11.8	2.5			
	Real GDP	0.2	1.4	1.8			
Baseline Scenario	Unemployment	4.5	4.8	4.9	349	60%	381
	HPI	3.7	3.7	2.4			
	Real GDP	-4.2	0.7	0.9			
Downside scenario	Unemployment	6.4	7.8	8.7	583	20%	
	HPI	-8.0	-6.5	2.2			
Germany	Real GDP	1.7	2.3	1.8			
	Unemployment	2.6	2.2	1.8	606	20%	
Upside scenario	HPI	0.6	3.9	6.2			
	Real GDP	-0.7	1.4	1.5			
Baseline Scenario	Unemployment	3.2	3.1	3.1	726	60%	745
	HPI	-1.8	0.9	2.7			
	Real GDP	-4.8	0.1	1.0			
Downside scenario	Unemployment	4.8	5.3	5.6	942	20%	
	HPI	-6.2	-3.3	-1.4			

Example 14: ING Bank N.V., 2022 Annual Report, page 94

Similarly, HSBC disclose sensitivity analysis with 100% weighting applied to each scenario. However, HSBC's disclosures provide further information by disaggregating the sensitivity analysis by both product type and geographic location. Example 15 presents an extract from HSBC's annual report disclosing ECLs relating to retail products. While the level of detailed

information may be an obstacle to comparability, the detailed disclosures are complemented by a useful summary table, as shown in Example 16.

Retail analysis

IFRS 9 ECL sensitivity to future economic conditions[1]

By geography at 31 December 2022	Gross carrying amount $m	Reported ECL $m	Consensus Central scenario ECL $m	Consensus Upside scenario ECL $m	Consensus Downside scenario ECL $m	Downside 2 scenario ECL $m
UK						
Mortgages	147,306	204	188	183	189	399
Credit cards	6,518	455	434	396	442	719
Other	7,486	368	333	274	383	605
Mexico						
Mortgages	6,319	152	127	102	183	270
Credit cards	1,616	198	162	97	233	289
Other	3,447	438	400	318	503	618
Hong Kong						
Mortgages	100,107	1	1	–	1	1
Credit cards	8,003	261	227	180	417	648
Other	5,899	85	81	74	100	123
UAE						
Mortgages	2,170	37	37	36	38	38
Credit cards	441	41	37	21	68	86
Other	718	17	17	15	19	22
France[3]						
Mortgages	21,440	51	50	50	51	52
Other	1,433	54	53	52	55	59
US						
Mortgages	13,489	7	6	6	8	15
Credit cards	219	26	25	23	27	36
Canada[2]						
Mortgages	25,163	45	44	43	46	58
Credit cards	299	10	9	8	11	11
Other	1,399	16	14	13	17	36

Example 15: HSBC Holdings plc, 2022 Annual Report, page 161

Total Group ECL at 31 December 2022	Retail[1] $bn	Wholesale[1] $bn
Reported ECL	3.0	3.1
Scenarios		
100% Consensus Central scenario	(0.2)	(0.5)
100% Consensus Upside scenario	(0.6)	(1.1)
100% Consensus Downside scenario	0.4	0.8
100% Downside 2 scenario	1.8	5.5

Example 16: HSBC Holdings plc, 2022 Annual Report, page 162

Rather than assessing sensitivity in terms of applying 100% weighting to forecasted scenarios, some banks (29% of G-SIBs and 14% of medium-sized banks) examine changes in various macroeconomic factors. For example, Santander present the percentage change in the ECL to variations of +/-100 bp for the macroeconomic variables used in the construction of the scenarios, such as GDP growth or unemployment rate. Example 17 presents an extract for the UK market. It is unclear whether disclosing an isolated quantitative impact on ECL of an

individual economic variable provides meaningful and comparable information, particularly given that macroeconomic variables may move in tandem and/or be interrelated. 8% of banks in our sample which disclose sensitivity analysis present how ECL changes given changes in estimates of the probability of default (PD) or loss given default (LGD). For example, United Bank for Africa (Example 18) present the sensitivities of the ECL for a uniform 1% increase or decrease in the LGD and PD.

	Change in Provision	
	Mortgages	Corporates
GDP Growth		
-100 bp	18.9%	7.1%
100 bp	-8.1%	-4.0%
Housing price change		
-100 bp	10.1%	10.2%
100 bp	-6.0%	-12.0%
Unemployment rate		
-100 bp	-10.8%	-5.4%
100 bp	27.2%	10.5%

Example 17: Santander, 2022 Annual Report, page 738

In millions of Nigerian Naira	December 31, 2022		December 31, 2021	
	Probability of Default -PD	Loss Given Default-LGD	Probability of Default -PD	Loss Given Default-LGD
Increase/decrease				
1% increase	747	952	577	647
1% decrease	(747)	(952)	(577)	(647)

Example 18: United Bank for Africa plc, 2022 Annual Report, page 183

UBS has a unique approach among our sample of banks. As shown in Example 19, the columns represent 100% weighting to each scenario in addition to the weighted average. Rows represent changes in key parameters. In this way, users can identify how ECLs would change for a given change in macroeconomic variable in the context of a given scenario.

USD m	100% Baseline	100% Stagflationary geopolitical crisis	100% Global crisis	Weighted average
Change in key parameters				
Fixed income: Government bonds (absolute change)				
–0.50%	(3)	(106)	(2)	(14)
+0.50%	4	124	2	17
+1.00%	8	264	10	37
Unemployment rate (absolute change)				
–1.00%	(4)	(138)	(24)	(23)
–0.50%	(2)	(78)	(13)	(12)
+0.50%	3	84	16	15
+1.00%	5	179	32	31
Real GDP growth (relative change)				
–2.00%	7	13	18	11
–1.00%	3	7	9	5
+1.00%	(3)	(7)	(9)	(5)
+2.00%	(5)	(13)	(18)	(10)
House Price Index (relative change)				
–5.00%	15	196	88	56
–2.50%	7	92	40	25
+2.50%	(4)	(83)	(35)	(19)
+5.00%	(7)	(157)	(65)	(36)
Equity (S&P500, EuroStoxx, SMI) (relative change)				
–10.00%	4	7	6	5
–5.00%	2	3	3	2
+5.00%	(2)	(4)	(3)	(2)

Example 19: UBS Group AG, 2022 Annual Report, page 319

A handful of banks in our sample provide alternative forms of sensitivity analysis. For example, to understand the sensitivity of SICR triggers to ECL, 21% of surveyed banks disclosing sensitivity analysis present how the ECL changes after assuming all (or a certain percentage of) total loans are assigned to Stage 1 or Stage 2. As shown in Example 20, Toronto Dominion tabulates all performing loans and off-balance sheet instruments calculated using twelve-month ECLs relative to the probability weighted ECL.

Incremental Lifetime ECLs Impact

(millions of Canadian dollars)		*As at*
	October 31, 2022	October 31, 2021
Probability-weighted ECLs	**$ 6,599**	$ 6,608
All performing loans and off-balance sheet instruments using 12-month ECLs	**4,819**	4,903
Incremental lifetime ECLs impact	**$ 1,780**	$ 1,705

Example 20: Toronto Dominion Bank Group, 2022 Annual Report, page 177

Two G-SIBs disclose sensitivity analysis in narrative format and take a multifactor form of adjusting the weighting between the scenarios. However, rather than reporting the ECL allowance under different weighting regimes, the disclosure identifies the maximum percentage change in ECL allowance for a given percentage change in scenario weighting. An example of such disclosure is as follows:

> *"The Group conducts sensitivity analysis on the weightings of multiple economic scenarios used in forward-looking measurement. As at 31 December 2022, when the weighting of optimistic scenario or pessimistic scenario increases by 10%, and the weighting of baseline scenario decreases by 10%, the respective decrease or increase in loan loss allowance will not exceed 5%"*
> (Bank of China Limited, 2022 Annual Report, page 329)

While this provides the reader with an idea of the bounds of the ECL allowance given a certain change in weighting, the information provided is not sufficiently detailed to enable comparisons with other banks.

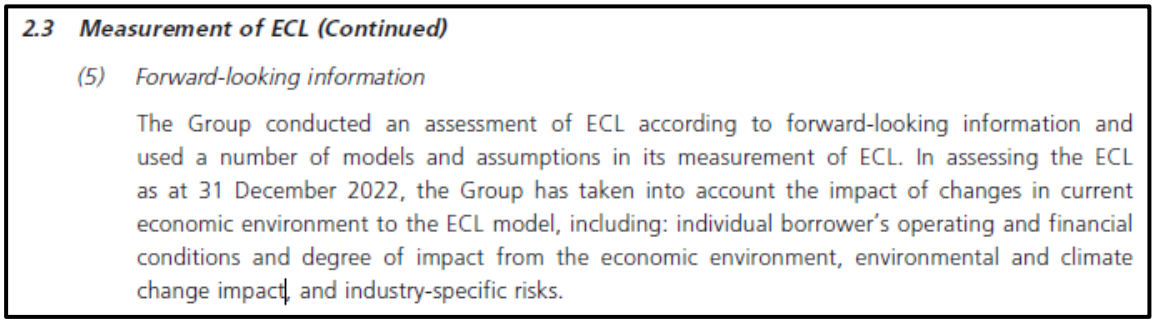
2.7 Climate Risk and ECL

A few banks in the sample discuss climate risk with respect to the measurement of ECL allowance. We find 72% of G-SIBs and 33% of medium-sized banks in the sample mention

climate risk in their general discussion of credit risk. However, only 11 banks (44% of G-SIBs and 25% of medium-sized banks) discuss climate risk directly in relation to ECLs. Of those banks which consider climate risk in the calculation of ECL allowance, the approaches differ between banks. 4 of such banks integrate climate risk through PMAs. For example, Westpac (Australia) make an overlay for extreme weather events which may impact on the credit worthiness of customers:

> *"$70 million (2021: nil) for the Group and $70 million (2021: nil) for the Parent Entity for extreme weather events including the expected impact on customers of recent flooding"* (Westpac [Australia] Group, 2022 Annual Report, page 198).

The remaining 7 banks include climate risk in the model as a factor considered in the FLI (see Example 21 from Bank of China). However, climate risk is not discussed in detail in this disclosure. In this case, it is not clear exactly how climate risks are integrated into the ECL model nor how sensitive the ECL balance is to its inclusion. Similar discussion is provided in other annual financial statements where climate risk is incorporated into the calculation of ECL. Where climate-related events are assumed to occur more regularly, these are included in selected forward-looking scenarios. For example, Standard Bank (South Africa) include the following forecast in the bear case scenario: "*Adverse events relating to climate change, for example the severe flooding experienced in KwaZulu-Natal in 2022, are assumed to be a more regular occurrence under this scenario*" (Standard Bank [South Africa], 2022 Annual Report, page 30).



2.3 Measurement of ECL (Continued)

(5) Forward-looking information

The Group conducted an assessment of ECL according to forward-looking information and used a number of models and assumptions in its measurement of ECL. In assessing the ECL as at 31 December 2022, the Group has taken into account the impact of changes in current economic environment to the ECL model, including: individual borrower's operating and financial conditions and degree of impact from the economic environment, environmental and climate change impact, and industry-specific risks.

Example 21: Bank of China Limited, 2022 Annual Report, page 329

In a handful of cases, whilst entities note the relevance of climate risk to the calculation of ECLs, they acknowledge the challenges of integrating climate risk into quantitative modelling.

For example, ING recognise a need to better understand emerging climate and environment risks in the credit risk management framework. However, the disclosure notes that the lack of sufficient empirical historical data means climate risk has not yet been integrated into ECL models. Example 22 provides an extract of the discussion.

Climate and environmental risks in IFRS 9 models (*)

ING is evolving in its credit risk management framework to further develop a better understanding of emerging climate and environmental risks. Banks, including ING, are in the process of collecting and analysing empirical historical data and moving towards embedding these emerging risks into their credit risk management processes and eventually into their IFRS 9 ECL models.
In 2022, ING continued to enhance the tools used to identify and assess climate and environmental (C&E) risks in our portfolio. We created C&E risk sector heatmaps for both WB and Retail Banking that facilitated the identification of exposure to C&E risks by means of scores assigned to transition and physical risk drivers. They also enabled us to understand the magnitude of the C&E risk impact on a sectoral level and pinpointed sectors with highest C&E risk exposure. In the past two years, we have improved our understanding of the physical risk impact of climate events on our mortgage portfolio.

The integration of quantified inputs from the heatmaps into risk modelling has not yet been implemented for a number of reasons including a lack of data to assess C&E risks at a client level. Refer to the section 'Environmental, social and governance risk' for further details on the heatmaps and the related challenges.

At this point in time it is not possible to incorporate climate risk separately into IFRS 9 ECL models given the lack of sufficient empirical historical data and the above-mentioned limitations in the risk assessments on client level. Where climate and environmental factors have impacted the economy in the recent past or present, these impacts are however currently implicitly embedded in ING's IFRS9 ECL models through the projected macroeconomic indicators (e.g. GDP growth and unemployment rates). We note that our ECL models are primarily sensitive to the short-term economic outlook as we use a three-year time horizon for macroeconomic outlook, after which a mean reversion approach is applied.

With regard to our evaluation of climate-related matters, where such events have already occurred (e.g. floods), the impact of such events are individually assessed in the calculation of Stage 3 Individual provisions or management adjustments to ECL models. For example, we consider whether affected assets have suffered from a significant increase in credit risk (or are credit impaired) and whether the ECL is appropriate. As of 31 December 2022, reported ECL includes a management adjustment of €10 million to address the increased credit risk in ING's livestock farming portfolio resulting from nitrogen reduction targets introduced by the Dutch Government. Refer to the section 'Management overlays' for further details.

Example 22: ING Bank N.V., 2022 Annual Report, page 82

3. Corporates

3.1 Sample composition

Our analysis of corporates is based on 10 entities from a range of industries and geographic locations. Figure 11 presents the proportion of firms in each geographic location and Figure 12 plots the proportion of firms in each GICS sector.

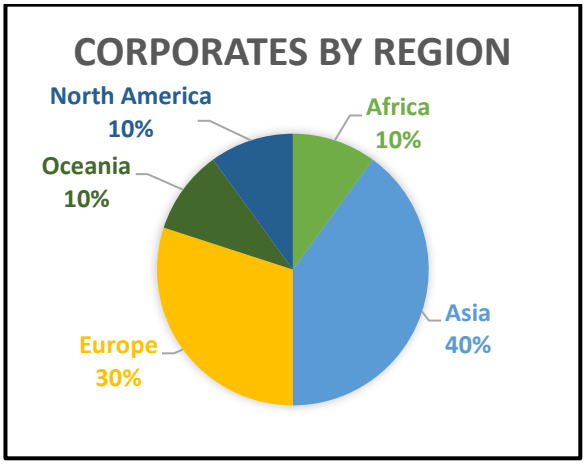


Figure 11

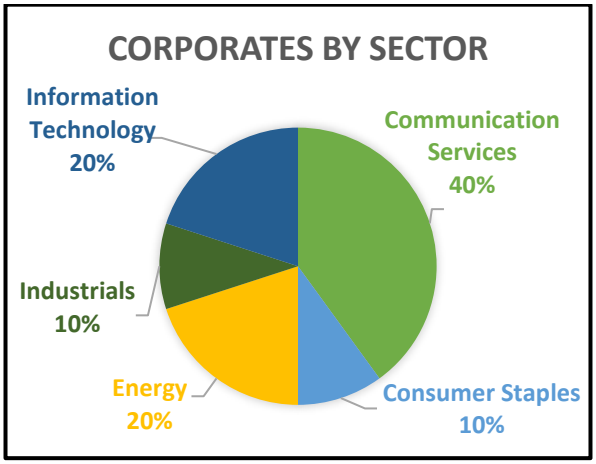


Figure 12

3.2 Exposure to credit risk

All corporates in the sample provide a credit risk disclosure. However, there is substantial heterogeneity in the materiality of credit risk for the entities in our sample. One entity reports that their exposure to credit risk is "not substantial", and disclosure is provided that allows users to understand why the exposure is low. Specifically, Danone plc state:

> "*Due to the large number of customers located in diverse geographical areas and the fact that its main customers are in the mass retail sector, and despite the current economic situation, the Group believes that it is neither exposed to significant credit risk, nor dependent to a material extent on any single customer*" (Danone plc, 2022 Annual Report, page 24)

To provide some insight into the level of credit risk for each entity, we calculate the level of ECL allowance as a percentage of the total value of receivables. In Figure 13, we plot this for all corporates in our sample. For some firms, such as Samsung and Saudi Aramco, we find that this ratio is less than 5%. On the other hand, credit risk would appear to be more material for other corporates, such as Vodafone and MTN Group.

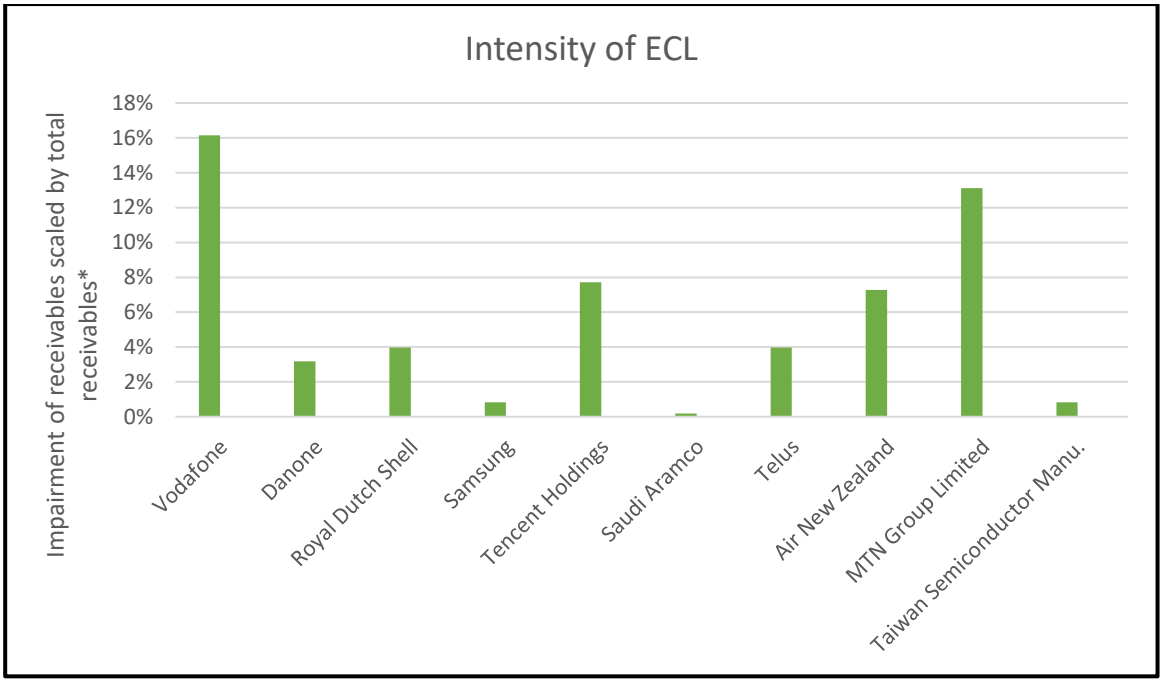


Figure 13

(** includes trade receivables, lease receivables and contract assets)*

3.3 Extent of disclosure

There is also heterogeneity in the extent of credit risk disclosures. Only two firms (MTN Group and Tencent Holdings) provide extensive credit risk disclosure of (approximately) six- and three-pages respectively. Disclosures of both corporates focus on the credit quality of trade receivables.[11] None of these firms provide repetitive or boilerplate information regarding credit risk. Additionally, it's noteworthy that the ratio of ECL allowance to total receivables is relatively high for these corporates. This suggests that the more detailed disclosure is likely a result of their increased exposure to credit risk. Other sampled corporates provide less extensive credit risk disclosures, limiting discussion to a few paragraphs.

All but two corporates in our sample provide qualitative and entity-specific disclosures about credit risk management. Several tools are commonly discussed, including reliance on credit ratings, diversification of customer base and collateral. For example, Samsung provide the following information:

[11] For instance, they provide ageing analysis, credit ratings, and categorize loans into performing, past due, and those with no reasonable expectation of recovery. Additionally, they provide details on the methodology employed for assessing recovery.

(B) Credit risk

Credit risk arises during the normal course of transactions and investing activities where clients or other parties fail to discharge an obligation. The Company monitors and sets the client's and the counterparty's credit limits on a periodic basis based on the client's and counterparty's financial conditions, default histories and other important factors. Adequate insurance coverage is maintained for trade receivables related to the trading partners situated in higher risk countries.

Credit risk can arise from transactions with financial institutions which include financial instrument transactions such as cash and cash equivalents, deposits, and derivative instruments. To minimize such risk, the Company transacts only with banks which have strong international credit ratings (S&P A and above), and all new transactions with financial institutions with no prior transaction history are approved, managed and monitored by the Company's finance team and the local finance center. The Company generally enters into a financial agreement with no restrictions, such as debt ratio covenants, provision of collateral and/or repayment of loans/ borrowings. The Company requires separate approvals for contracts with restrictions.

Example 23: Samsung plc, 2022 Annual Report, page 79

3.4 Use of simplified approach

All corporates in our sample recognised ECL for receivables. However, the quality of disclosure varied with only six out of the ten corporates clearly stating that the simplified approach had been applied. Others are silent as to whether they apply the general or the simplified approach to calculate the ECL. Of the six corporates that clearly indicate the use of the simplified approach, only four discuss the use of a provision matrix. Such disclosure is in general brief with little entity-specific information. Nevertheless, the example by MTN Group provides granular insights:

"*ECLs are calculated by applying a loss ratio to the aged balance of trade receivables at each reporting date. The loss ratio is calculated according to the ageing/payment profile of sales by applying historical/proxy write offs to the payment profile of the sales population. In instances where there was no evidence of historical write offs management used a proxy write off. Trade receivable balances have been grouped so that the ECL calculation is performed on groups of receivables with similar risk characteristics and ability to pay. Similarly, the sales population selected to determine the ageing/payment profile of the sales is representative of the entire population and in line with future payment expectations. The historic loss ratio is then adjusted for forward-looking information (including forecast economic indicators) to determine the ECL for the portfolio of trade receivables at the reporting date to the extent that there is a strong correlation between the forward-looking information, and the ECL. The Group used 12 – 36 months sales data to determine the payment profile of the sales. Where the Group has information about actual historical write-offs, actual write-offs have been used to determine a historic loss ratio. Alternatively, management has used a proxy write-off based on management's best estimate. The Group has considered quantitative forward-looking information such as the*

core inflation rate. Qualitative assessments have also been performed, of which the impact was found to be immaterial" (MTN Group Ltd, 2022 Annual Report, pages 85-86)

Six corporates disclose a reconciliation of the ECL allowance from opening to closing balance. The granularity of reconciliations varies across entities, with some corporates simply reporting the opening balance, net provisions/reversals, and closing balance. In contrast, Example 24 provides the reconciliation disclosed by MTN Group which provides more detailed disclosure.

Reconciliation of allowance for credit losses	**2022 Trade receivables[1] Rm**	2021 Trade receivables Rm	**2022 Contract assets Rm**	2021 Contract assets Rm
At the beginning of the year	**(3 054)**	(3 138)	**(679)**	(499)
Additions[2]	**(1 355)**	(894)	**–**	(180)
Reversals[2]	**161**	315	**27**	–
Utilised[2]	**1 397**	689	**1**	–
Exit in Yemen (note 9.4.1.4)	**–**	118	**–**	–
Deconsolidation on loss of control (note 9.4.1.3)	**–**	127	**–**	–
Exchange differences and other movements[3]	**(19)**	(271)	**–**	–
At the end of the year	**(2 870)**	(3 054)	**(651)**	(679)

Example 24: MTN Group Ltd, 2022 Annual Report, page 87

3.5 Information on credit quality of assets

All but one company in our sample provide an ageing analysis of some form. However, there is notable variation in how the ageing disclosure is presented. The spectrum of disclosures ranges from a single consolidated table (5 firms), a single table but disaggregated either by product type or geographic location (2 firms), a separate table for each product type (1 firm), to a purely narrative disclosure (1 firm). We also see substantial variation in the time horizons used. For example, one corporate tabulates the proportion of receivables past 30 days due (see Example 25). At the other end of the spectrum, several corporates disclose the value of receivables for several overdue buckets (see Example 26).

Sales to the Group's largest customers and overdue receivables not yet fully impaired

	Year ended December 31	
(in percentage)	**2021**	2022
Portion of consolidated sales made to the Group's largest customers		
Group's largest customer	6.8%	5.9%
Group's five largest customers	13.9%	12.9%
Group's ten largest customers	20.2%	18.9%
Portion of overdue trade receivables not yet fully impaired [(a)]	**5.8%**	**10.0%**

(a) More than 30 days overdue. The main change relates to a specific environment in Europe and does not therefore reflect an increase in credit risk.

Example 25: Danone plc, 2022 Annual Report, page 24

Accounts receivable and their ageing analysis, based on recognition date, are as follows:

	As at 31 December	
	2022	2021
	RMB'Million	RMB'Million
0 ~ 30 days	**25,279**	21,639
31 ~ 60 days	**9,247**	13,255
61 ~ 90 days	**6,545**	6,105
Over 90 days	**4,396**	8,332
	45,467	49,331

Example 26: Tencent Holdings Ltd, 2022 Annual Report, page 241

4. Conclusions

This report provides a review of credit risk disclosures based on a thorough examination of annual reports from a representative sample of 40 listed companies, comprising 30 banks and 10 corporates, all adhering to IFRS Accounting Standards. Our analysis reveals significant variations in the granularity, disaggregation, and overall extent of credit risk disclosures within both the banking and corporate sectors. Additionally, we have identified specific areas where enhancements in disclosure practices could be beneficial. The insights derived from this report will feed into the IASB's Post-Implementation Review of the impairment requirements in IFRS 9 Financial Instruments and credit risk disclosures in IFRS 7.

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