ING Bank Additional Pillar III Report 2023

Contents

Introduction

Basis of disclosure

The information in this report relates to ING Groep N.V. and all of its subsidiaries (hereafter ING). There are no differences between the scope of consolidation for prudential purposes and the scope of consolidation for accounting purposes as reported in the annual accounts in Note 1 'Basis of preparation and significant accounting policies', Note 44 'Principal subsidiaries, investments in associates and joint ventures' and Note 45 'Structured entities'.

Governance

The Pillar III disclosures have been subject to our internal control framework, to ensure compliance with laws and regulations. The Disclosure Committee (DisCom), responsible for all our disclosures, assesses the accuracy of the content before reporting their conclusions to the Audit Committee (AC) for review and submission to the Supervisory Board for final approval. This report has not been audited by our external auditor.

Regulatory framework

In 2010, the Basel III framework was adopted and consequently translated in the European Union (EU) into regulation through the Capital Requirement Regulation (CRR) and Capital Requirement Directive IV (CRD IV). The CRR is binding for all EU member states and became effective per 1 January 2014.

On 16 April 2019, the European Parliament (EP) approved the final agreement on a package of reforms proposed by EC to strengthen the resilience and resolvability of European banks. The package of reforms comprises certain amendments to CRR and CRD IV commonly referred to as 'CRR II' and CRD V'. On 27 June 2019, the Banking Reform Package came into force, subject to various transitional and staged timetables.

The Basel Committee's framework is based on three pillars. Pillar I on minimum capital requirements, which defines the rules for the calculation of credit, market and operational risk. Pillar II is about Supervisory Review and Evaluation Process (SREP), which requires banks to undertake an internal capital adequacy assessment process (ICAAP) to identify and assess risks, also those not included in Pillar I, and maintain sufficient capital to face these risks, and an internal liquidity adequacy assessment process (ILAAP) focusing on maintaining sufficient liquidity (and funding) risk management. Pillar III is on market discipline and transparency, requiring disclosures to allow investors and other market participants to understand the risk profiles of individual banks.

ING prepares the Pillar III report in accordance with the CRR II and CRD V. ING's 'Additional Pillar III Report' contains disclosures for regulatory capital requirements, credit risk, including counterparty credit risk, securitisations and other non-credit obligation assets (ONCOA), market risk, liquidity risk, non-financial risk and compliance risk. Furthermore, the report discusses regulatory exposures and risk weighted assets. In order to comply to the CRR II disclosure requirements, ING is using in this report the templates from implementing technical standards (ITS) with regard to public disclosures, as developed by the EBA. Qualitative information (templates) is included in the Annual Report. Therefore, this report should be read in conjunction with the Risk Management section of the Annual Report.

The Pillar III report is published on an annual basis. However, some capital requirements as laid down in Article 438 of the CRR as well as information on risk exposure or other items prone to rapid change are disclosed on a quarterly or semi-annual basis. Some subsidiaries publish information on capital and solvency on their websites or annual reports pursuant to local regulatory requirements.

Comparative figures

To give insight into movements during the year, we provide comparative figures for the previous year and analytical review of variances. Table name references and row numbering in tables identify those prescribed in the relevant EBA guidelines where applicable and where there is a value.

Where disclosures have been enhanced, or are new, we do not generally restate or provide prior year comparatives. Wherever specific rows and columns in the tables prescribed by the EBA are not applicable or immaterial to our activities, we omit them and follow the same approach for comparative disclosures.

Management attestation

Throughout the year, and to date, ING has operated a framework of disclosure controls and procedures to support the appropriateness of the Pillar 3 disclosures. In line with the ITS and the mapping tool as provided by EBA, the templates in this report have been aligned to other supervisory reporting and reconciliation were executed against regulatory reporting to ECB such as Corep, Finrep and TLAC. The Disclosure Committee is responsible for examining the reports and disclosures to ensure that they have been subject to adequate verification and comply with applicable standards and legislation.

Disclosure requirements changes in 2023

The following EBA final draft ITS have already been applied into our disclosures.

Final draft ITS on prudential disclosures on ESG risks in accordance with article 449a CRR

In January 2022, the EBA published the final draft ITS on Pillar 3 disclosures on Environmental, Social and Governance (ESG) risks in accordance with article 449a CRR. It puts forward tables, templates and associated instructions that specify the requirement in Article 449a of Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR) to disclose prudential information on environmental, social and governance (ESG) risks, including transition and physical risk, addressed to large institutions with securities traded on a regulated market of any Member State.

The ITS was adopted by the European Commission in November 2022, published in the Official Journal of the EU in December 2022 with a first reporting date in 2023 (reference date: 31 December 2022). The ESG Pillar 3 requires credit institutions such as ING to disclose the following information:

- Climate risks: how climate change may exacerbate other risks within banks balance sheets.
- Mitigating actions: what mitigating actions banks have in place to address those risks, including financing activities that reduce carbon emissions.
- Green Asset ratio and Banking Book Taxonomy Alignment ratio: to understand how banks are financing activities that will meet the publicly agreed Paris agreement objectives of climate change mitigation and adaptation based on the EU taxonomy of green activities.

The EBA ESG Pillar 3 requirements features (i) a set of 10 quantitative templates that request banks to disclose climate-related risks and actions to mitigate them, together with exposure to green assets and (ii) qualitative information on their ESG strategies, governance and risk management arrangements with regard to ESG risk. It should be noted that the EBA ESG Pillar 3 requirements will become binding following a phased-in approach, with a transitional period for certain disclosures until 2025 (reference date: 31 December 2024). For Year-end 2023, templates 6, 7 and 8 will be for the first time disclosed and the GHG financed emissions in template 1.

The ITS on disclosure have been developed in accordance with the mandate included in Article 434a of Regulation (EU) N0 575/2013.

Capital requirements

Economic and Regulatory Capital

Economic Capital (EC) and Regulatory Capital (RC) are the main sources of capital allocation within ING. Both of these capital metrics are used to determine the amount of capital that a transaction or business unit requires to support the economic and regulatory-based risks it faces. The concept of EC differs from RC in the sense that RC is the mandatory amount of capital that is defined under Pillar I while EC is the best estimate of Pillar II capital that ING uses internally to manage its own risk. EC is a non-accounting measure that is inherently subject to dynamic changes and updated as a result of ING's portfolio mix and general market developments. ING continuously recalibrates the underlying assumptions behind its EC model, which may have an impact on the values of EC going forward. ING has started in 2019 with the implementation of a new EC Framework, for which the key design principles were adopted in November 2018. These design principles as well as an increased role of EC in business planning and decision making is currently gradually implemented.

EC is defined as the amount of capital that a transaction or business unit requires in order to support the economic risks it takes. EC focuses on the bank activities on an ING Bank consolidated level only and is therefore available per that scope. In general, EC is measured as the unexpected loss above the expected loss at a given confidence level. The EC calculation is used as part of the CRR II/CRD V Pillar II Internal Capital Adequacy Assessment Process (ICAAP) and is subject to the Supervisory Review and Evaluation Process (SREP) that is performed regularly by the supervisor.

The following fundamental principles and definitions have been established for the model:

- ING Bank uses a one-sided confidence level of 99.90% and a one-year time horizon to calculate EC;
- It is assumed that all currently known measurable sources of risk are included;
- The best estimate risk assumptions are as objective as possible and to the extent possible based on statistical analysis;
- The EC calculations reflect known embedded options and the influence of customer behaviour in banking products;
- The EC calculations are on a before tax basis and do not consider the effect of regulatory requirements on capital levels; and
- The framework does not include any franchise value of the business, discretionary management intervention or future business volumes and margins.

Specific measurement by risk type is described in greater detail in the separate risk type sections.

The tables below provide ING Bank's EC and RC by risk type and business line. The increase in credit risk EC is mainly the result of add-ons that were introduced to account for limitations relating to concentration risk and to mitigate specific current modelling decisions.

ING Bank: Economic and Regulatory Capital by risk type

		Economic capital		Regulatory capital	
		2023	2022	2023	2022
1	Credit risk	18,922	18,543	21,309	22,606
2	Market risk	11,250	11,098	1,144	1
3	Business risk	1,176	1,429		
4	Operational risk	3,080	2,800	3,080	2,800
5	**Total**	**34,429**	**33,869**	**25,533**	**26,522**

ING Bank: Economic and Regulatory Capital by business line combination

		Economic capital		Regulatory capital	
		2023	2022	2023	2022
1	Wholesale Banking	13,020	13,575	12,023	12,755
2	Retail Benelux	9,353	9,405	6,821	6,830
3	Retail Challengers & Growth Markets	6,482	8,231	5,528	6,255
4	Corporate Line	5,573	2,657	1,161	682
5	**Total**	**34,429**	**33,869**	**25,533**	**26,522**

Capital Adequacy

The rules for required Regulatory Capital or Capital adequacy are defined by European Union regulation and directives.

The rules express the regulators' and legislators' opinion on how much capital a bank and other regulated institutions must retain in relation to the size and the type of risks it is taking, expressed in the form of Risk-Weighted Assets. The most significant component of the capital base is the shareholders' equity. In addition to equity, the institution may issue certain liabilities such as Tier 1 and Tier 2 instruments which can be included in the capital base. The legal minimum requirement (excluding buffers) stipulates that the capital base must correspond to at least 8% of the Risk-Weighted Assets (RWA).

The table below presents an overview of the Minimum capital requirements and the RWA at year-end 2023 per risk type and method of calculation. The largest part of the RWA is related to Credit risk (excluding counterparty credit risk) (74%), primarily to the portfolio with calculations based on the Advanced Internal Ratings Based (AIRB) approach. More information on credit RWA is given in the chapter “Credit risk”.

EU OV1: Regulatory capital requirements

		RWA amounts		Minimum capital requirements	
		2023	2022	2023	2022
1	**Credit risk (excluding CCR)**	**237,840**	**254,446**	**19,027**	**20,356**
2	Of which the standardised approach	27,579	26,636	2,206	2,131
3	Of which the Foundation IRB (F-IRB) approach	23,091	21,178	1,847	1,694
4	Of which slotting approach				
EU 4a	Of which equities under the simple riskweighted approach	1,462	1,509	117	121
5	Of which the Advanced IRB (A-IRB) approach	185,707	205,124	14,857	16,410
6	**Counterparty credit risk - CCR**	**12,421**	**11,314**	**994**	**905**
7	Of which the standardised approach	8,565	7,786	685	623
8	Of which internal model method (IMM)				
EU 8a	Of which exposures to a CCP	670	868	54	69
EU 8b	Of which credit valuation adjustment - CVA	1,150	863	92	69
9	Of which other CCR	2,037	1,797	163	144
15	**Settlement risk**	**21**	**68**	**2**	**5**
16	**Securitisation exposures in the non-trading book (after the cap)**	**2,536**	**2,466**	**203**	**197**
17	Of which SEC-IRBA approach	286	347	23	28
18	Of which SEC-ERBA (including IAA)	718	684	57	55
19	Of which SEC-SA approach	1,532	1,435	123	115
EU 19a	Of which 1250% / deduction				
20	**Position, foreign exchange and commodities risks (Market risk)**	**15,942**	**15,119**	**1,275**	**1,209**
21	Of which the standardised approach	7,304	7,026	584	562
22	Of which IMA	8,639	8,092	691	647
EU 22a	**Large exposures**				
23	**Operational risk**	**38,500**	**35,000**	**3,080**	**2,800**
EU 23a	Of which basic indicator approach				
EU 23b	Of which standardised approach				
EU 23c	Of which advanced measurement approach	38,500	35,000	3,080	2,800
24	**Amounts below the thresholds for deduction (subject to 250% risk weight)**	**9,113**	**9,497**	**729**	**760**
25	**Other Risk Exposures**	**4,985**	**4,944**	**399**	**396**
29	**Total**	**321,358**	**332,853**	**25,709**	**26,628**

The amount of RWA decreased in 2023 by EUR 11.5 billion to EUR 321.4 billion. This is mainly triggered by a EUR 15.5 billion decrease in Credit RWA. For more information on Credit RWA see the credit risk chapter.

Key Metrics

As of 1 January 2014, the CRR/CRD IV capital rules entered into force. According to CRR/CRD IV capital adequacy rules, the Common Equity Tier 1 ratio must be at least 4.5%, the Tier 1 ratio at least 6% and the total capital ratio at least 8% of all risk-weighted assets. This was not changed in the CRR II/CRD V.

EU KM1 - Key metrics template

		Total 2023	Total 2022
		CRR II/CRD V	CRR II/CRD V
	Available own funds (amounts)		
1	Common Equity Tier 1 (CET1) capital	38,396	41,966
2	Tier 1 capital	45,444	48,324
3	Total capital	54,613	58,411
	Risk-weighted exposure amounts		
4	Total risk exposure amount	321,358	332,853
	Capital ratios (as a percentage of risk-weighted exposure amount)		
5	Common Equity Tier 1 ratio (%)	11.95 %	12.61 %
6	Tier 1 ratio (%)	14.14 %	14.52 %
7	Total capital ratio (%)	16.99 %	17.55 %
	Additional own funds requirements to address risks other than the risk of excessive leverage (as a percentage of risk-weighted exposure amount)		
EU 7a	Additional own funds requirements to address risks other than the risk of excessive leverage (%)		
EU 7b	of which: to be made up of CET1 capital (percentage points)		
EU 7c	of which: to be made up of Tier 1 capital (percentage points)		
EU 7d	Total SREP own funds requirements (%)	8.00 %	8.00 %
	Combined buffer and overall capital requirement (as a percentage of risk-weighted exposure amount)		
8	Capital conservation buffer (%)	2.50 %	2.50 %
EU 8a	Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State (%)		
9	Institution specific countercyclical capital buffer (%)	0.50 %	0.10 %
EU 9a	Systemic risk buffer (%)		
10	Global Systemically Important Institution buffer (%)		
EU 10a	Other Systemically Important Institution buffer (%)		
11	Combined buffer requirement (%)	3.00 %	2.60 %
EU 11a	Overall capital requirements (%)	11.00 %	10.60 %
12	CET1 available after meeting the total SREP own funds requirements	7.45%	8.11%
	Leverage ratio		
13	Total exposure measure	N/A	N/A
14	Leverage ratio (%)	N/A	N/A
	Additional own funds requirements to address the risk of excessive leverage (as a percentage of total exposure measure)		
EU 14a	Additional own funds requirements to address the risk of excessive leverage (%)	N/A	N/A
EU 14b	of which: to be made up of CET1 capital (percentage points)	N/A	N/A
EU 14c	Total SREP leverage ratio requirements (%)	N/A	N/A
	Leverage ratio buffer and overall leverage ratio requirement (as a percentage of total exposure measure)		
EU 14d	Leverage ratio buffer requirement (%)	N/A	N/A
EU 14e	Overall leverage ratio requirement (%)	N/A	N/A
	Liquidity Coverage Ratio		
15	Total high-quality liquid assets (HQLA) (Weighted value -average)	N/A	N/A
EU 16a	Cash outflows - Total weighted value	N/A	N/A
EU 16b	Cash inflows - Total weighted value	N/A	N/A
16	Total net cash outflows (adjusted value)	N/A	N/A
17	Liquidity coverage ratio (%)	N/A	N/A
	Net Stable Funding Ratio		
18	Total available stable funding	N/A	N/A
19	Total required stable funding	N/A	N/A
20	NSFR ratio (%)	N/A	N/A

Countercyclical buffer

ING's countercyclical buffer requirement rose from 0.095% at the end of 2022 to 0.495% at the end of 2023. See below for an overview of the exposure distribution for the most relevant countries (having an own funds requirements weight larger than 1% and/or having in place or announced a countercyclical buffer rate larger than 0%).

Countercyclical buffer

2023	General credit exposures		Relevant credit exposures – Market risk		Securitisation exposures Exposure value for non-trading book	Total exposure value	Own funds requirements			Total	Risk-weighted exposure amounts	Own funds requirements weights (%)	Counter-cyclical capital buffer rate (%)
	Exposure value under the standardised approach	Exposure value under the IRB approach	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for internal models			Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book				
Countries with an active CCyB													
Netherlands	2,522	203,447				205,969	3,294	1	23	3,317	41,464	19.237 %	1.000 %
Germany	2,465	126,853				129,318	1,978	2	32	2,012	25,154	11.670 %	0.750 %
United Kingdom	7	24,782				24,788	687	3	6	696	8,698	4.035 %	2.000 %
Australia	2,666	48,920		2		51,587	682		6	688	8,596	3.988 %	1.000 %
France	2,321	24,695				27,017	474	1	22	497	6,216	2.884 %	0.500 %
Luxembourg	628	18,665				19,293	434		45	479	5,987	2.778 %	0.500 %
Romania	5,800	2,300				8,101	379			379	4,739	2.198 %	1.000 %
Ireland	1	33,806				33,807	107		4	111	1,386	0.643 %	1.000 %
Hong Kong	18	8,364				8,382	85		1	86	1,074	0.498 %	1.000 %
Sweden	23	3,452				3,474	80			81	1,006	0.467 %	2.000 %
Norway		3,042				3,042	56	2		58	723	0.335 %	2.500 %
Czechia	1	1,771		16		1,788	52			52	652	0.303 %	2.000 %
Slovakia		655				655	32			32	404	0.187 %	1.500 %
Denmark		1,393		13		1,406	23	1	2	26	325	0.151 %	2.500 %
Bulgaria		429				429	18			18	231	0.107 %	2.000 %
Cyprus	4	145				149	5			5	64	0.030 %	0.500 %
Iceland		65				65	3			3	36	0.017 %	2.000 %
Slovenia		95				95	2			2	25	0.012 %	0.500 %
Estonia		75				75	1			1	18	0.008 %	1.500 %

Croatia		25				25	1			1	17	0.008 %	1.000 %
Lithuania		172				172	1			1	14	0.007 %	1.000 %
Armenia		4				4						— %	1.500 %
North Macedonia												— %	0.500 %
Countries having announced a CCyB													
Belgium	1,065	92,226				93,291	2,154	1	16	2,170	27,130	12.587 %	— %
Hungary	1	1,467				1,468	49			49	618	0.287 %	— %
Korea, Republic of	3	1,972		319		2,294	33	6	1	40	505	0.234 %	— %
Chile		490				490	25			25	315	0.146 %	— %
Latvia		14				14	1			1	11	0.005 %	— %
Georgia												— %	— %
Countries with more than 1% of ING Bank consolidated's exposure that have not announced a CCyB													
United States	54	106,917		86		107,057	1,570	3	47	1,620	20,247	9.394 %	— %
Poland	18,321	18,485		10		36,817	1,500			1,501	18,757	8.702 %	— %
Spain	4,015	28,444				32,459	850		5	856	10,694	4.962 %	— %
Italy	1,331	15,797		34		17,163	543	3		546	6,829	3.168 %	— %
Russian Federation		1,426		4		1,430	247			247	3,088	1.433 %	— %
Switzerland	3	20,334				20,336	235			235	2,943	1.365 %	— %
Turkey	2,423	1,537		28		3,988	230	4		233	2,917	1.353 %	— %
Other countries	360	75,308		281		75,949	1,136	20	17	1,173	14,659	6.801 %	— %
Total	**44,033**	**867,572**		**793**		**912,397**	**16,969**	**49**	**226**	**17,244**	**215,544**	**100.000 %**	**0.495 %**

Countercyclical buffer													
	General credit exposures		Relevant credit exposures – Market risk				Own funds requirements						
2022	Exposure value under the standardised approach	Exposure value under the IRB approach	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for internal models	Securitisation exposures Exposure value for non-trading book	Total exposure value	Relevant credit risk exposures - Credit risk	Relevant credit exposures – Market risk	Relevant credit exposures – Securitisation positions in the non-trading book	Total	Risk-weighted exposure amounts	Own funds requirements weights (%)	Counter-cyclical capital buffer rate (%)
Breakdown by country:													
Countries with an active CCyB													
United Kingdom	25	22,962			491	23,477	766	3	9	778	9,722	4.183 %	1.000 %
Luxembourg	752	20,907		9	4,349	26,017	524	2	53	578	7,224	3.108 %	0.500 %
Romania	5,692	1,883				7,575	350			350	4,372	1.881 %	0.500 %
Hong Kong	58	8,045				8,103	128			128	1,603	0.690 %	1.000 %
Sweden	20	3,607		8		3,634	89			90	1,121	0.482 %	1.000 %
Czechia	5	1,724				1,729	60	1		61	764	0.329 %	1.500 %
Norway		3,052				3,053	54	1		55	692	0.298 %	2.000 %
Slovakia		799				799	34			34	428	0.184 %	1.000 %
Denmark	2	1,764			144	1,910	23		2	25	307	0.132 %	2.000 %
Bulgaria		414		3		417	21			22	269	0.116 %	1.000 %
Iceland		75				76	3			3	38	0.016 %	2.000 %
Estonia		80				80	2			2	20	0.009 %	1.000 %
Countries having announced a CCyB													
Netherlands	2,479	205,317			1,012	208,808	3,339	1	15	3,356	41,950	18.051 %	— %
Germany	452	128,680			2,810	131,942	2,543	1	37	2,582	32,269	13.885 %	— %
Australia	3,069	48,948			482	52,499	562		6	568	7,094	3.053 %	— %
France	2,604	24,077			1,515	28,195	486		16	503	6,287	2.705 %	— %
Ireland	2	27,552			538	28,093	180		5	185	2,314	0.995 %	— %
Hungary	1	1,287				1,288	46			46	570	0.245 %	— %
Cyprus	6	92				98	4			4	55	0.024 %	— %
Croatia		22				22	1			1	16	0.007 %	— %
Lithuania		53				53	1			1	10	0.004 %	— %
Slovenia		1				1						— %	— %

Armenia		4				4						— %	— %
Countries with more than 1% of ING Bank consolidated's exposure that have not announced a CCyB													
Belgium	1,417	92,651			1,101	95,168	2,419	1	15	2,434	30,430	13.094 %	— %
United States	48	100,358			2,959	103,364	1,638	1	42	1,681	21,016	9.043 %	
Poland	16,852	17,278				34,130	1,405			1,405	17,560	7.556 %	
Spain	3,803	28,025			95	31,923	727		4	731	9,138	3.932 %	— %
Russian Federation		2,854		19	67	2,940	535		3	538	6,722	2.893 %	— %
Italy	1,268	13,850		3	28	15,150	438	2		440	5,494	2.364 %	
Turkey	2,998	1,597		6		4,601	291			291	3,640	1.566 %	— %
Switzerland	2	22,036		20		22,058	275	1		275	3,444	1.482 %	— %
Other countries	217	82,224		64	1,154	83,660	1,405	7	14	1,427	17,833	7.673 %	— %
total	**41,770**	**862,218**		**132**	**16,745**	**920,866**	**18,349**	**22**	**221**	**18,592**	**232,403**	**100.000 %**	**0.095 %**

Amount of institution-specific CCyB

	2023	2022
Total risk exposure amount	**321,358**	**332,853**
Institution specific countercyclical capital buffer rate	0.495 %	0.095 %
Institution specific countercyclical capital buffer requirement	1,592.3	317.7

Own funds

The CRR requires ING to disclose information on own funds in a specific format that was provided in the EBA Implementation Technical Standards. The EBA templates Annex I, II and Annex VI are disclosed as part of the "Additional Pillar 3 disclosures" excel file on the corporate website ing.com. https://www.ing.com/Investor-relations/Financial-performance/Annual-reports.htm

EU CC1 - Composition of regulatory own funds

		2023	2022	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
		Amounts	Amounts	
Common Equity Tier 1 (CET1) capital: instruments and reserves				
1	Capital instruments and the related share premium accounts	17,067	17,067	CC2 - 26
	of which: Ordinary Shares	17,067	17,067	
2	Retained earnings	22,428	22,956	CC2 - 28
3	Accumulated other comprehensive income (and other reserves)	-1,105	-1,145	
EU-3a	Funds for general banking risk			
4	Amount of qualifying items referred to in Article 484 (3) CRR and the related share premium accounts subject to phase out from CET1			
5	Minority interests (amount allowed in consolidated CET1)	508	487	
EU-5a	Independently reviewed interim profits net of any foreseeable charge or dividend	1,035	2,755	
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**39,933**	**42,120**	
Common Equity Tier 1 (CET1) capital: regulatory adjustments				
7	Additional value adjustments (negative amount)	-594	-609	
8	Intangible assets (net of related tax liability) (negative amount)	-934	-824	CC2 - 9
9	Not applicable			
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) CRR are met) (negative amount)	-173	-438	CC2 - 11
11	Fair value reserves related to gains or losses on cash flow hedges of financial instruments that are not valued at fair value	2,058	3,055	
12	Negative amounts resulting from the calculation of expected loss amounts	-604	-149	
13	Any increase in equity that results from securitised assets (negative amount)			
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-31	-70	
15	Defined-benefit pension fund assets (negative amount)	-428	-489	
16	Direct, indirect and synthetic holdings by an institution of own CET1 instruments (negative amount)	-11	-4	
17	Direct, indirect and synthetic holdings of the CET 1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)			
18	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)			
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)			
20	Not applicable			
EU-20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative			
EU-20b	of which: qualifying holdings outside the financial sector (negative amount)			
EU-20c	of which: securitisation positions (negative amount)			
EU-20d	of which: free deliveries (negative amount)			

21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met) (negative amount)			
22	Amount exceeding the 17,65% threshold (negative amount)			
23	of which: direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities			
24	Not applicable			
25	of which: deferred tax assets arising from temporary differences			
EU-25a	Losses for the current financial year (negative amount)			
EU-25b	Foreseeable tax charges relating to CET1 items except where the institution suitably adjusts the amount of CET1 items insofar as such tax charges reduce the amount up to which those items may be used to cover risks or losses (negative amount)			
26	Not applicable			
27	Qualifying AT1 deductions that exceed the AT1 items of the institution (negative amount)			
27a	Other regulatory adjustments	-820	-625	
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	**-1,537**	**-154**	
29	**Common Equity Tier 1 (CET1) capital**	**38,396**	**41,966**	
Additional Tier 1 (AT1) capital: instruments				
30	Capital instruments and the related share premium accounts	6,967	6,280	CC2 - 24
31	of which: classified as equity under applicable accounting standards			
32	of which: classified as liabilities under applicable accounting standards	6,967	6,280	
33	Amount of qualifying items referred to in Article 484 (4) CRR and the related share premium accounts subject to phase out from AT1			
EU-33a	Amount of qualifying items referred to in Article 494a(1) CRR subject to phase out from AT1			
EU-33b	Amount of qualifying items referred to in Article 494b(1) CRR subject to phase out from AT1			

34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5) issued by subsidiaries and held by third parties	86	78	
35	of which: instruments issued by subsidiaries subject to phase out			
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**7,053**	**6,358**	
Additional Tier 1 (AT1) capital: regulatory adjustments				
37	Direct, indirect and synthetic holdings by an institution of own AT1 instruments (negative amount)	-5		
38	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)			
39	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)			
40	Direct, indirect and synthetic holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)			
41	Not applicable			
42	Qualifying T2 deductions that exceed the T2 items of the institution (negative amount)			
42a	Other regulatory adjustments to AT1 capital			
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**			
44	**Additional Tier 1 (AT1) capital**	**7,048**	**6,358**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**45,444**	**48,324**	
Tier 2 (T2) capital: instruments				
46	Capital instruments and the related share premium accounts	9,150	10,046	CC2 - 24
47	Amount of qualifying items referred to in Article 484(5) CRR and the related share premium accounts subject to phase out from T2 as described in Article 486(4) CRR			
EU-47a	Amount of qualifying items referred to in Article 494a(2) CRR subject to phase out from T2			

EU-47b	Amount of qualifying items referred to in Article 494b(2) CRR subject to phase out from T2		
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	54	41
49	of which: instruments issued by subsidiaries subject to phase out		
50	Credit risk adjustments		
51	**Tier 2 (T2) capital before regulatory adjustments**	**9,204**	**10,088**
Tier 2 (T2) capital: regulatory adjustments			
52	Direct, indirect and synthetic holdings by an institution of own T2 instruments and subordinated loans (negative amount)	-35	
53	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)		
54	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)		
54a	Not applicable		
55	Direct, indirect and synthetic holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)		
56	Not applicable		
EU-56a	Qualifying eligible liabilities deductions that exceed the eligible liabilities items of the institution (negative amount)		
EU-56b	Other regulatory adjustments to T2 capital		
57	Total regulatory adjustments to Tier 2 (T2) capital	-35	
58	**Tier 2 (T2) capital**	**9,169**	**10,088**
59	**Total capital (TC = T1 + T2)**	**54,613**	**58,411**
60	**Total Risk exposure amount**	**321,358**	**332,853**
Capital ratios and requirements including buffers			

61	Common Equity Tier 1 capital	11.95 %	12.61 %
62	Tier 1 capital	14.14 %	14.52 %
63	Total capital	16.99 %	17.55 %
64	Institution CET1 overall capital requirements	7.50 %	7.10 %
65	of which: capital conservation buffer requirement	2.50 %	2.50 %
66	of which: countercyclical capital buffer requirement	0.50 %	0.10 %
67	of which: systemic risk buffer requirement		
EU-67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer requirement		
EU-67b	of which: additional own funds requirements to address the risks other than the risk of excessive leverage		
68	**Common Equity Tier 1 capital (as a percentage of risk exposure amount) available after meeting the minimum capital requirements**	**7.45 %**	**8.11 %**
National minima (if different from Basel III)			
69	Not applicable		
70	Not applicable		
71	Not applicable		
Amounts below the thresholds for deduction (before risk weighting)			
72	Direct and indirect holdings of own funds and eligible liabilities of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	1,258	238
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 17.65% thresholds and net of eligible short positions)	2,882	2,893
74	Not applicable		
75	Deferred tax assets arising from temporary differences (amount below 17,65% threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met)	763	906
Applicable caps on the inclusion of provisions in Tier 2			
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap)		

77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	347	336
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)		
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	1,381	1,484
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)			
80	Current cap on CET1 instruments subject to phase out arrangements		
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)		
82	Current cap on AT1 instruments subject to phase out arrangements		
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)		
84	Current cap on T2 instruments subject to phase out arrangements		
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)		

EU CC2 - reconciliation of regulatory own funds to balance sheet in the audited financial statements

		Balance sheet as in published financial statements	Balance sheet as in published financial statements	Reference
		2023	2022	
Assets - Breakdown by asset classes according to the balance sheet in the published financial statements				
1	Cash and balances with central banks	90,214	87,614	
2	Loans and advances to banks	16,708	35,103	
3	Financial assets at fair value through profit or loss	123,026	113,770	
4	Financial assets at fair value through other comprehensive income	41,116	31,625	
5	Securities at amortised cost	48,313	48,160	
6	Loans and advances to customers	642,453	635,557	
7	Investments in associates and joint ventures	1,509	1,500	
8	Property and equipment	2,399	2,446	
9	Intangible assets	1,198	1,102	CC1 -8
10	Current tax assets	311	349	
11	Deferred tax assets	1,280	1,796	CC1 - 10
12	Other assets	7,109	8,839	
13	Assets held for sale			
14	**Total assets**	**975,636**	**967,861**	
Liabilities - Breakdown by liability classes according to the balance sheet in the published financial statements				
15	Deposits from banks	23,257	56,632	
16	Customer deposits	702,217	686,341	
17	Financial liabilities at fair value through profit or loss	94,637	93,019	
18	Current tax liabilities	351	324	
19	Deferred tax liabilities	184	257	
20	Provisions	899	1,030	
21	Other liabilities	13,130	13,344	
22	Liabilities held for sale			
23	Debt securities in issue	84,423	58,075	
24	Subordinated loans	15,404	15,789	CC1 - 30, 46
25	**Total liabilities**	**934,501**	**924,811**	
Shareholders' Equity				
26	Share capital and share premium	17,067	17,067	CC1 - 1
27	Other reserves	-1,105	-1,145	
28	Retained earnings (incl. profit for the period)	24,229	26,623	CC1 - 2
29	Shareholders' equity (parent)	40,191	42,546	
30	Non-controlling interests	944	504	
31	**Total shareholders' equity**	**41,135**	**43,050**	

Transitional arrangements for IFRS 9 or analogous ECLs

In January 2018, the EBA published its final guidelines on disclosure requirements of IFRS 9 or analogous expected credit losses (ECLs) transitional arrangements. The guidelines specify a uniform disclosure template institutions shall use when disclosing the information on own funds, capital and leverage ratios, with and without the application of transitional arrangements for IFRS 9 or ECLs. These guidelines have been drafted in accordance with article 473a, paragraph 10 of the CRR, which mandates the EBA to issue guidelines on the disclosure requirements laid down in the same article.

In 2018, ING initially decided not to apply the CRR transitional arrangements for mitigating the impact of the introduction of IFRS 9 impairment on own funds. Therefore, the capital and leverage ratios published as from reporting period 1 January 2018 fully reflected the impact of impairment requirements resulting from IFRS 9.

On 26 June 2020, the Regulation (EU) 2020/873 of the European Parliament and of the Council of 24 June 2020 amending Regulations (EU) No 575/2013 and (EU) 2019/876 (CRR II) as regards certain adjustments in response to the Covid-19 pandemic (CRR 'quick fix') was published. Part of that was the possibility to extend by 2 years the transitional arrangements for mitigating the impact on own funds of the introduction of IFRS 9 (Article 473a (8) of Regulation (EU) No 575/2013). During 2020, ING obtained supervisory permission to apply the dynamic component of transitional arrangements pursuant the CRR 'quick fix' (phasing in impact of increases in IFRS 9 Stage 1 and 2 provisions that have arisen since 1 January 2020). The next table illustrates the own funds, capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs.

IFRS 9-FL: Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs

	2023	2022
Available capital (amounts)		
Common Equity Tier 1 (CET1) capital	38,396	41,966
Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	38,385	41,949
Tier 1 capital	45,444	48,324
Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	45,433	48,307
Total capital	54,613	58,411
Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	54,602	58,394
Risk-weighted assets (amounts)		
Total risk-weighted assets	321,358	332,853
Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	321,347	332,836
Capital ratios		
Common Equity Tier 1 (as a percentage of risk exposure amount)	11.95 %	12.61 %
Common Equity Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	11.94 %	12.60 %
Tier 1 (as a percentage of risk exposure amount)	14.14 %	14.52 %
Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	14.14 %	14.51 %
Total capital (as a percentage of risk exposure amount)	16.99 %	17.55 %
Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	16.99 %	17.54 %

Credit Risk

Basis and scope of presentation

In the credit risk section of Pillar III, data included in the tables are related to ING's credit risk resulting from Lending (both on- and off-balance), Money Market activities, Investment Risks, Securities Financing and Derivatives. The Securities Financing and Derivatives portfolios are presented separately in the counterparty credit risk section.

The amounts presented in this section relate to amounts used for credit risk management purposes, which follow ING's internal interpretation of the definitions as prescribed under CRR/CRD IV. Therefore, the numbers can be different from the accounting numbers as reported in the annual accounts under IFRS-EU. An example is the treatment of ONCOA (Other Non-Credit Obligation Assets) items – while the accounting numbers include ONCOA, they are excluded from the credit risk section of Pillar III.

The majority of the tables included in this section are based on gross or net carrying value. The gross carrying value refers to the original exposure pre-credit conversion factors for the on- and off-balance sheet items. The net carrying value corresponds to the original exposure (on- and off-balance) pre-credit conversion factors corrected for allowances, impairments and provisions.

READ is the Regulatory Exposure at Default (READ) and credit risk weighted assets (RWA) under the CRR/CRD IV definitions. READ is the sum of the on-balance and off-balance sheet: Lending, Investment, Money Market and counterparty activities plus an estimated portion of the unused credit facilities extended to the obligor. The amounts associated with Investment and Lending activities are based on the original amount invested less repayments.

The Figures Securities Financing are based on the Financial Collateral Comprehensive Method applying supervisory volatility adjustments. The Derivatives figures are based on the Standardized Approach for Counterparty Credit Risk (SA-CCR). Under SA-CCR the exposure at default (EAD) estimate is based on two components; the current replacement cost (RC) and the potential future exposure (PFE). The RC reflects today's loss amount upon the default of a counterparty. The PFE reflects the future expected increase in loss amount. Both replacement cost and PFE are adjusted based on the underlying collateral and any legal netting or compensation that may be permitted under master agreement arrangements such as International Swaps and Derivatives Association (ISDA) master agreements and Credit Support Annexes (CSAs).

Off-balance sheet exposures include letters of credit and guarantees, which are associated with the Lending risk category and are included under 'credit risk outstanding'. Additionally, off-balance sheet exposures include a portion of the unused limits, which represent the expected value of the outstanding at the theoretical moment of default. These are not counted under 'credit risk outstanding' but they contribute to total exposure and READ.

Investments in a financial sector entity, determined following art. 43 of the CRR, are included in the item "amounts below the thresholds for deduction" of table EU-OV1 "ING Regulatory capital requirements" up to the level at which the combined significant investments are equal to 10% of the CET1 capital of ING. These exposures are subject to 250% risk weight.

A small part of the equity exposure of ING's portfolio is subject to the simple risk weight method for calculating the regulatory capital.

Credit risk approach

ING applies the Advanced Internal Ratings Based (AIRB) approach on the majority of its significant portfolios that contain credit risk in accordance with the required approvals granted by ECB and various local regulators. The AIRB approach is permitted by the regulator if there are regulatory approved rating models (PD, EAD and LGD) in place and if the (local) management understands and uses these rating models (Basel Use Test) in their credit decision-making processes. However, a small portion of the portfolio remains subject to the Standardised Approach (SA). The majority of SA portfolios at ING relate to subsidiaries where the home regulator does not have a robust AIRB framework or requirement.

Credit risk capital

Regulatory capital is the minimum amount of capital (based on 99.90% confidence level) that ING holds from a regulatory perspective as a cushion to be able to survive large unexpected losses.

RWA comparison
The differences in RWA among banks have been classified by the BIS in 3 categories:

- Risk based drivers that stem from the differences in underlying risk at the exposure/portfolio level and in business models/ strategies including asset class mix;
- Practice-based drivers including approaches to risk management and risk measurement; and
- Regulatory environment such as supervisory practices, implementing laws and regulations including national discretion and accounting standards.

Risk based drivers

ING's portfolio is dominated by secured lending especially in the areas of residential mortgages, leasing and commercial real estate. Secured lending tends to have a much lower LGD, given the collateral involved, which is a key driver of RWA calculations. Therefore the regulatory formula for residential mortgages tends to result in lower RWA, all other factors being equal.

Practice based drivers

ING has a proactive approach to non-performing exposures. Non-performing exposures are recognised early based on unlikely to pay triggers. For non-retail, ING typically classifies default based on a borrower rating and not a facility rating which means that a customer will only have one PD (probability of default) regardless of the type(s) of transactions done with ING. As a consequence, if one facility is in default, usually all facilities of the client are in default. Non-performing clients which were granted forbearance measures have an additional probation period of 1 year starting from the last moment they are classified as forborne, before returning to performing status.

Regulatory environment

ING's primary supervising entity is the ECB, which is supported by many host supervisors. The ECB supervises adherence to regulatory rules: the regulatory framework defined in CRR/CRD, implementing- and regulatory technical standards, European Banking Authority (EBA) guidelines and ECB guidance. Regulations require all 'significant changes' in internal models (PD, LGD and EAD) and policies to be reviewed and approved by the ECB, prior to implementation. Lower level model changes are either pre-notified or post-notified to the ECB.

Comparing capital levels across banks is a challenging exercise because of different risk profiles, differences in risk based drivers, practice based drivers and the regulatory environment (e.g. advanced internal rating based approach or the standardised approach). These factors have a substantial impact on the regulatory capital/RWA of a financial institution. ING continues to work with industry groups and strives to adhere to the latest BIS and EBA recommendations to improve the transparent reporting of the bank's capital calculations.

Economic capital

Economic capital reflects ING's own view on credit risk, which allows it to be used in decision-making processes at (sub) portfolio level. Credit risk and transfer risk capital are calculated for all portfolios which contain credit or transfer risk, including investment portfolios. Economic capital is the minimum amount of capital required to cover unexpected losses within a 99.9% confidence level and a 12 month time horizon. It is used throughout ING in the decision-making process (mainly wholesale banking), in risk adjusted counterparty and portfolio profitability measurement tools (wholesale and retail banking), in investment and divestment decisions, in the country risk framework and in concentration risk management, including risk appetite statements (RAS). Economic capital is calculated using the economic values of rating models (PD, EAD and LGD), in line with regulatory requirements.

An important characteristic of our IT systems and framework is that models are built for several purposes, including economic capital, regulatory capital and loan loss provisioning. These credit risk models are used throughout the organisation which is compliant with the Basel Use Test requirement and facilitates active feedback on the risk parameters by business units.

Credit risk measurement

There are two ways to measure credit risk for regulatory reporting purposes within ING's portfolio, depending on whether the exposure is booked under an ING office that is permitted by the ECB to use the advanced internal rating based (AIRB) approach, or if it falls under the standardised approach (SA).

Standardised approach

The SA applies a fixed risk weight to each asset as dictated by the CRR, and is based on the exposure class to which the exposure is assigned. As such, the SA is the least sophisticated of the regulatory capital methodologies and is not as sensitive as the risk-based approach. Where external rating agency ratings are available, they may be used as a substitute to using the fixed risk weightings assigned by the Financial Supervisory Authorities. Because the underlying obligors are relatively small for exposures treated under SA, with an exception for Governments and central banks, the underlying obligors tend not to have external ratings.

Advanced internal rating based approach

There are five main elements that drive the determination of risk-weighted assets under the AIRB approach.

- Probability of Default (PD): The first is the borrower's probability of default, which measures a client's creditworthiness in terms of likelihood to go into default. It attempts to measure the senior, unsecured standalone creditworthiness of an organisation without consideration of structural elements of the underlying transactions, such as collateral, pricing, or maturity. Each borrower has a rating which translates into a specific PD.
- Exposure at Default (EAD): The second element is the borrower's exposure at default. EAD models are intended to estimate the outstandings amount or obligation at the moment of default. Since the time in which a client may go into default is unknown, and the level of outstandings that may occur on that date is also unknown, ING uses a combination of statistical and hybrid models to estimate the EAD. With the exception of guarantees and letters of credit, the EAD is always equal to or higher than the associated credit risk outstandings, under the assumption that clients tend to absorb liquidity from available credit resources before financial problems become apparent to the clients' creditors. EAD is largely a function of the type of credit facility (overdraft, revolving, term) offered to the borrower.

- Loss Given Default (LGD): The third element is loss given default. LGD models are intended to estimate the amount ING would lose after liquidating collateral pledged in association with a given loan or financial obligation, or alternatively, from liquidating the company as a whole as part of a workout process. LGD models are based on cover types, estimated recovery rates given orderly liquidation, and (in)direct cost of liquidation.
- Maturity (M): The fourth element is the time to the maturity of the underlying financial obligation. Regulatory requirements (CRR/CRDIV) floor the maturity element at one year and cap it at five years.
- Exposure Class: The fifth element is the exposure class (a regulatory prescribed grouping of a common obligor type or product type) which is a driver for the correlation factor. To calculate risk-weighted assets the default correlation between a transaction and all other transactions in the portfolio is taken into account.

The expected loss (EL) provides a measure of the value of the credit losses that ING may reasonably expect to incur on its portfolio. In its basic form, the expected loss can be represented as:

EL = PD * EAD * LGD

Credit risk tools

Exposure classes

The BCBS has developed the concept of 'Exposure Classes', which has been transposed into CRR/CRDIV. These are essentially groupings of credit risks associated with a common client type, product type and/or cover type. For the AIRB Approach, most of the exposure classes have subcategories. ING has applied the following definitions to determine Exposure Classes:

- Sovereigns include Sovereign Government entities, Central Banks and recognised Local / Regional Authorities as well as Supranational Organisations;
- Institutions include Commercial Banks, non-Bank Financial Institutions, such as Funds and Fund Managers, and Insurance Companies, as well as local and regional government entities not classified as governments;
- Corporates includes all legal entities, that are not considered to be Governments, Institutions or Retail Other;
- Retail includes the following classes:
  - Retail – Secured by immovable property non-SME (hereafter residential mortgages) includes all retail loans which are covered by residential properties;
  - Retail - Secured by immovable property SME (included in tables with Other Retail) includes all retail loans which are covered by commercial properties; and
  - Other Retail includes all other credit obligations related to Retail SMEs (such as partnerships and one-man businesses) and private individuals (such as consumer loans, car loans and credit cards). Under these exposure class definitions, it is possible for a private individual to have exposure classified as both residential mortgages and retail other.
- Securitisations include securitisation programs for which ING acts as an investor, sponsor or originator.

Models used for exposure classes

ING has developed PD, EAD and LGD models for Wholesale Banking and Retail Banking portfolios. These models are subject to Credit and Trading Risk Committee (CTRC) approval and changes which significantly impact the results require approval from the regulator before implementation. By nature, the above described exposure classes have different, specific characteristics. To capture these specific characteristics and to have suitable valuations and analyses in place, Model Development is continuously updating and developing models within each exposure class.

ING master scale

Internal rating grade and corresponding PD and external rating equivalent			
Internal rating grade		PD range for each grade	External Rating Equivalent
Performing			
Investment grade	1	0.00 - 0.01%	AAA
	2	0.01 - 0.03%	AA+
	3	0.03 - 0.04%	AA
	4	0.04 - 0.05%	AA-
	5	0.05 - 0.06%	A+
	6	0.06 - 0.08%	A
	7	0.08 - 0.11%	A-
	8	0.11 - 0.17%	BBB+
	9	0.17 - 0.26%	BBB
	10	0.26 - 0.37%	BBB-
Non-investment grade	11	0.37 - 0.58%	BB+
	12	0.58 - 1.00%	BB
	13	1.00 - 1.77%	BB-
	14	1.77 - 3.23%	B+
	15	3.23 - 6.05%	B
	16	6.05 - 11.67%	B-
	17	11.67 - 20.20%	CCC
Sub-standard grade	18	20.20 - 29.58%	CC
	19	>29.58%-100%	C
Non-performing			
Non-performing grade	20	1	Default
	21	1	Default
	22	1	Default

AIRB models per exposure class

In the table below, the number of significant PD, EAD and LGD models per asset class are shown. Additionally a description of the model and methodology are provided per exposure class. The asset classes presented in this table do not align with the EBA Exposure classes as the scope has been redefined to better fit the scope of the model. SME exposure, for example, can be part of either corporate exposures or other retail depending on the size of the SME.

AIRB models and methodology

	Model Type	Number of significant models	Model description and methodology	Number of years of data
Government related entities	PD	1	The government related entities PD model is expert based and assigns ratings based on stand-alone credit fundamentals as well as degree of government support.	>7 years
	LGD	1	The LGD model for Government related entities is a secured/unsecured recovery model built on assessment of stand-alone fundamentals as well as geography.	>7 years
	EAD	1	The Low Default EAD model is a hybrid model that pools default information from multiple low default portfolios, including government related entities.	>7 years
Financial institutions	PD	3	The main PD model applied is Bank Commercial based upon financial, qualitative and country information. Other PD models for different types of financial institutions are built using a similar framework, but are more specialised for the specific characteristics of the financial institution.	>7 years
	LGD	1	This LGD model was developed based on expert judgement, supported by limited internal and external data. The developed LGD model is based on ultimate recovery rates.	>7 years
	EAD	1	The Low Default EAD model is a hybrid model used that pools default information from multiple low default portfolios, including financial institutions.	>7 years
Corporates - Specialized lending	PD	3	Expert based scorecards Models predict a rating for Commercial Property Finance, Project Finance, Trade and Commodity Finance.	>7 years
	LGD	3	Hybrid LGD Models predict loss given default for Commercial Property Finance, Project Finance, Trade and Commodity Finance.	>7 years
	EAD	1	There is a dedicated EAD model for commercial property finance due to the specificities of this portfolio.	>7 years
Large Corporates	PD	1	The Corporate Large model is a global hybrid model build on 13 years of data, including balance sheet and qualitative information as well as country risk and parent influence.	>7 years
	LGD	1	Loss Given Default for Large corporates are predicted by a dedicated hybrid LGD model using both no loss rates as well as secured/unsecured recovery rates.	>7 years
	EAD	1	The Low Default EAD model is a hybrid model used that pools default information from multiple low default portfolios, including large corporates.	>7 years
SME	PD	6	The SME PD models are estimated statistically and directly predict a PD. Most of these models are developed locally to reflect regional/jurisdiction circumstances.	>7 years
	LGD	6	Local statistical models or hybrid models use various data inputs on cure behaviour as well as cost and recovery.	>7 years
	EAD	6	Local statistical models that use various data inputs, including product type and geography.	>7 years
Secured by residential mortgages	PD	7[1]	The PD mortgages models are all developed statistically and include borrower specific information, payment behaviour and product related information. These are statistical models that directly predict a PD.	>5 years[2]
	LGD	7	Local statistical models or hybrid models use various data inputs on cure behaviour as well as cost and recovery	>7 years
	EAD	7	Local statistical models that use various data inputs, including product type and geography.	>7 years
Private Individuals	PD	4[1]	The PD models for private individuals are all developed statistically and include borrower specific information, payment behaviour and product related information. These are statistical models that directly predict a PD.	>5 years[2]
	LGD	4	Local statistical models use various data inputs on cure behaviour as well as cost and recovery.	>7 years
	EAD	4	Local statistical models that use various data inputs, including product type and geography.	>7 years
Other1	Other		(Covered Bonds, Structured assets)	

1 Belgian PD models provide a rating at a customer level, covering both secured and unsecured loans.
2 For retail PD modelling a minimum of 5 years is allowed based on ING's Modelling Standards, which are compliant with regulatory requirements.

Credit quality

This section focusses on non-performing loans, which are loans where there is a reasonable probability that ING may encounter a loss, unless ING intervenes with specific and significant actions. In other words, in this category an account or portfolio requires a more intensified approach, which may include renegotiation of terms and conditions and/or business/financial restructuring.

The credit quality of risk exposures is presented in several tables, that were introduced in 2021 due to changes in Pillar 3 regulations. The tables provide insight in the credit quality per exposure class, industry or counterparty type and geography. These tables present the gross carrying values, consisting of on- and off-balance sheet exposures, split over non-performing / performing, specific risk adjustments and impairments/ allowances. The net carrying values are the result of specific risk adjustments and / or after impairments/ allowances and are presented at the end of the tables.

On-balance sheet items include loans and debt securities. Off-balance sheet items include guarantees given and irrevocable loan commitments. Pre-settlement exposures are not included in this section.

More information on the definition of non-performing loans and allowances can be found in the credit quality section of the Risk Management paragraph of the Annual report.

This section provides a comprehensive picture of the credit quality of the banks' assets per exposure class. The data excludes Counterparty Credit Risk exposures, Securitisations, CVA RWA, Equities and ONCOA. The net carrying values correspond to the original exposure (on and off-balance) pre-credit conversion factors corrected for allowances, impairments and provisions.

Performing and Non-Performing Exposures and Related Provisions

EU CR1: Performing and non-performing exposures and related provisions

2023	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-off	Collateral and financial guarantees received	
	Performing exposures			Non-performing exposures			Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				On performing exposures	On non-performing exposures
		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3			
Cash balances at central banks and other demand deposits	91,346	91,021	325	7		7	-5	-1	-4	-5		-5			
Loans and advances	711,773	598,407	58,061	11,352		11,111	-1,859	-469	-1,391	-3,793		-3,782	-234	558,869	5,405
Central banks	3,672	2,381												3,628	
General governments	14,321	13,448	687	157		157	-8	-6	-2	-11		-11		4,741	146
Credit institutions	30,481	11,501	168	8		8	-16	-4	-12	-8		-8		22,310	
Other financial corporations	76,290	40,176	2,563	328		328	-96	-22	-75	-87		-87		58,145	86
Non-financial corporations	224,624	194,925	28,774	6,280		6,164	-988	-211	-777	-2,503		-2,492	-233	134,115	2,406
Of which SMEs	38,201	32,158	6,039	1,379		1,377	-201	-63	-138	-574		-572		31,741	680
Households	362,386	335,976	25,868	4,580		4,455	-752	-227	-525	-1,185		-1,184	-1	335,929	2,767
Debt securities	91,991	84,610	2,018				-34	-29	-5						
Central banks	2,489	2,043													
General governments	63,247	59,819	1,904				-32	-27	-5						
Credit institutions	18,994	18,844	114				-2	-2							
Other financial corporations	6,121	3,562													
Non-financial corporations	1,141	342													
Off-balance-sheet exposures	276,823	157,280	9,833	606		327	-53	-18	-35	-89		-89		44,301	209
Central banks	21	3												9	
General governments	9,208	7,114	216				-1	-1						142	
Credit institutions	6,077	587	2				-3	-1	-2					27	
Other financial corporations	31,129	19,879	537	49		47	-4	-2	-2	-1		-1		9,254	4
Non-financial corporations	196,475	100,549	8,145	519		243	-30	-11	-19	-87		-87		19,876	196
Households	33,913	29,148	933	39		36	-15	-3	-12	-1		-1		14,993	10
Total	**1,171,934**	**931,317**	**70,236**	**11,966**		**11,445**	**-1,951**	**-516**	**-1,435**	**-3,888**		**-3,877**	**-234**	**603,170**	**5,614**

EU CR1: Performing and non-performing exposures and related provisions															
2022	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-off	Collateral and financial guarantees received	
	Performing exposures			Non-performing exposures			Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				On performing exposures	On non-performing exposures
		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3			
Cash balances at central banks and other demand deposits	88,796	88,600	196				-12	-1	-11					8	
Loans and advances	718,921	614,775	57,651	11,431		11,170	-2,191	-550	-1,641	-3,831		-3,819	-25	553,248	5,184
Central banks	16,226	15,175	145											15,989	
General governments	12,609	11,530	973	175		175	-11	-4	-7	-6		-6		4,097	150
Credit institutions	33,052	15,895	1,056	20		20	-17	-7	-10	-20		-20		21,204	
Other financial corporations	72,982	40,390	4,945	303		303	-84	-18	-66	-165		-165		53,524	88
Non-financial corporations	229,399	194,923	32,742	6,646		6,502	-1,367	-257	-1,110	-2,549		-2,538	-25	132,688	2,215
Of which SMEs	34,462	29,118	5,338	1,293		1,293	-173	-54	-120	-542		-542		28,654	660
Households	354,653	336,861	17,790	4,288		4,171	-711	-263	-449	-1,091		-1,091		325,747	2,731
Debt securities	83,551	74,927	2,366				-38	-23	-15						
Central banks	2,638	2,225	106												
General governments	58,102	54,267	1,804				-35	-22	-14						
Credit institutions	15,933	15,343	424				-2	-1	-1						
Other financial corporations	5,702	2,772	32												
Non-financial corporations	1,176	320													
Off-balance-sheet exposures	273,302	149,249	13,244	715		421	-19	-6	-12	-120		-11		49,418	208
Central banks	711													24	
General governments	7,864	5,794	321	20		20								207	
Credit institutions	6,870	403	1											66	
Other financial corporations	32,195	19,724	1,976	97		94	-1	-1						9,573	92
Non-financial corporations	190,054	94,508	10,038	562		273	-11	-4	-7	-119		-11		22,272	106
Households	35,608	28,820	908	37		34	-7	-1	-5	-1				17,276	10
Total	**1,164,571**	**927,551**	**73,458**	**12,146**		**11,590**	**-2,259**	**-580**	**-1,679**	**-3,951**		**-3,831**	**-25**	**602,675**	**5,392**

The overall exposure in 2023 decreased to EUR 1,183,9 billion consists of mainly in Loans and advances: non-financial corporations and households. The non-performing exposure decreased slightly to EUR 12.0 billion (1.01% of the total exposure).

Maturity of Exposures

EU CR1-A: Maturity of exposures

2023	Net exposure value					
	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
Loans and advances	251,544	314,105	241,284	428,901		1,235,834
Debt securities		35,964	62,470	95,919		194,352
Total	**251,544**	**350,069**	**303,753**	**524,820**		**1,430,187**

EU CR1-A: Maturity of exposures

2022	Net exposure value					
	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
Loans and advances	244,508	288,338	237,415	428,490		1,198,752
Debt securities		59,613	77,776	73,077		210,465
Total	**244,508**	**347,951**	**315,191**	**501,567**		**1,409,217**

Changes in the stock of non-performing loans and advances

This table identifies the changes in the stock of provisions held against loans and advances that are defaulted or impaired.

EU CR2: Changes in the stock of non-performing loans and advances

	2023	2022
	Gross carrying amount	Gross carrying amount
Initial stock of non-performing loans and advances	**11,431**	**11,521**
Inflows to non-performing portfolios	6,753	7,278
Outflows from non-performing portfolios	-6,831	-7,653
Outflows due to write-offs	1,000	-1,130
Outflow due to other situations	-5,831	-6,523
Final stock of non-performing loans and advances	**11,352**	**11,431**

Forborne exposures

EU CQ1: Credit quality of forborne exposures

2023	Gross carrying amount/nominal amount of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
	Performing forborne	Non-performing forborne			On performing forborne exposures	On non-performing forborne exposures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
			Of which defaulted	Of which impaired				
Cash balances at central banks and other demand deposits	—	—	—	—	—	—	—	—
Loans and advances	8,758	5,166	4,951	4,951	-147	-1,661	9,078	2,428
Central banks	—	—	—	—	—	—	—	—
General governments	1	29	29	29	—	—	28	28
Credit institutions	—	—	—	—	—	—	—	—
Other financial corporations	461	139	139	139	-6	-31	360	38
Non-financial corporations	5,193	3,247	3,156	3,156	-114	-1,352	4,559	1,157
Households	3,103	1,752	1,628	1,628	-26	-278	4,131	1,206
Debt Securities	—	—	—	—	—	—	—	—
Loan commitments given	778	99	96	96	-3	-7	345	21
Total	**9,537**	**5,266**	**5,047**	**5,047**	**-149**	**-1,669**	**9,423**	**2,449**

Total forborne exposures in 2023 decreased from EUR 18.2 billion to EUR 14.8 billion driven by a decrease in non-financial corporations, slightly offset by an increase in households. The decreases are triggered by passing the two-year probation period following the Covid-19 pandemic

EU CQ1: Credit quality of forborne exposures

2022	Gross carrying amount/nominal amount of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
	Performing forborne	Non-performing forborne			On performing forborne exposures	On non-performing forborne exposures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
			Of which defaulted	Of which impaired				
Cash balances at central banks and other demand deposits								
Loans and advances	10,869	5,628	5,469	5,469	-220	-1,635	9,753	2,616
Central banks								
General governments		30	30	30		-1	24	24
Credit institutions								
Other financial corporations	379	256	256	256	-3	-137	248	25
Non-financial corporations	7,658	3,581	3,538	3,538	-198	-1,243	5,690	1,301
Households	2,832	1,762	1,645	1,645	-19	-254	3,791	1,265
Debt Securities								
Loan commitments given	1,563	187	187	187	-9	-11	130	17
Total	**12,432**	**5,815**	**5,655**	**5,655**	**-229**	**-1,646**	**9,883**	**2,633**

Aging of past due exposures

The table below gives an insight into the ageing of the on and off-balance sheets exposures, including both performing and non-performing assets.

EU CQ3: Credit quality of performing and non-performing exposures by past due days

2023	Gross carrying amount/nominal amount											
	Performing exposures			Non-performing exposures								
		Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted
Cash balances at central banks and other demand deposits	**91,346**	**91,346**		7	7							7
Loans and advances	**711,773**	**710,817**	**956**	**11,352**	**7,139**	**817**	**1,142**	**711**	**873**	**383**	**288**	**11,352**
Central banks	3,672	3,672										
General governments	14,321	14,321		157	150			1	2		4	157
Credit institutions	30,481	30,481		8	2			6				8
Other financial corporations	76,290	76,288	2	328	284	6	15	8	9	6		328
Non-financial corporations	224,624	224,333	291	6,280	4,191	402	601	226	424	265	171	6,280
Of which SMEs	38,201	38,106	95	1,379	802	79	144	87	206	31	29	1,379
Households	362,386	361,724	663	4,580	2,512	408	526	470	438	112	113	4,580
Debt securities	**91,991**	**91,991**										
Central banks	2,489	2,489										
General governments	63,247	63,247										
Credit institutions	18,994	18,994										
Other financial corporations	6,121	6,121										
Non-financial corporations	1,141	1,141										
Off-balance-sheet exposures	**276,823**			**606**								**603**
Central banks	21											
General governments	9,208											
Credit institutions	6,077											
Other financial corporations	31,129			49								49
Non-financial corporations	196,475			519								519
Households	33,913			39								39
Total	**1,171,934**	**894,155**	**956**	**11,966**	**7,146**	**817**	**1,142**	**711**	**873**	**383**	**288**	**11,966**

EU CQ3: Credit quality of performing and non-performing exposures by past due days

2022	Gross carrying amount/nominal amount											
	Performing exposures			Non-performing exposures								
		Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted
Cash balances at central banks and other demand deposits	**88,796**	**88,796**										
Loans and advances	**718,921**	**717,869**	**1,052**	**11,431**	**7,636**	**538**	**668**	**792**	**1,207**	**324**	**264**	**11,431**
Central banks	16,226	16,226										
General governments	12,609	12,609		175	148	3		19	1		4	175
Credit institutions	33,052	33,052		20	13		7					20
Other financial corporations	72,982	72,979	3	303	272	4	6	4	11	5		303
Non-financial corporations	229,399	228,932	468	6,646	4,789	171	242	356	719	216	152	6,646
Of which SMEs	34,462	34,364	98	1,293	775	42	72	104	203	56	41	1,293
Households	354,653	354,072	581	4,288	2,416	360	414	412	476	103	108	4,288
Debt securities	**83,551**	**83,551**										
Central banks	2,638	2,638										
General governments	58,102	58,102										
Credit institutions	15,933	15,933										
Other financial corporations	5,702	5,702										
Non-financial corporations	1,176	1,176										
Off-balance-sheet exposures	**273,302**			**715**								**715**
Central banks	711											
General governments	7,864			20								20
Credit institutions	6,870											
Other financial corporations	32,195			97								97
Non-financial corporations	190,054			562								562
Households	35,608			37								37
Total	**1,164,571**	**890,217**	**1,052**	**12,146**	**7,636**	**538**	**668**	**792**	**1,207**	**324**	**264**	**12,146**

Non-performing by geography

EU CQ4: Quality of non-performing exposures by geography

2023	Gross carrying/nominal amount	Of which non-performing	Of which defaulted	Of which subject to impairment	Accumulated impairment	Provisions on off-balance-sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on non-performing exposures
On-balance-sheet exposures	**815,117**		**11,352**		**-5,687**		
Netherlands	174,703		1,409		-760		
Belgium & Luxembourg	119,155		3,403		-1,184		
Germany	128,187		1,108		-653		
UK	22,643		165		-84		
France	25,027		124		-81		
Spain	37,998		302		-291		
Poland	46,864		941		-769		
Italy	18,009		355		-208		
Other Europe	50,772		752		-466		
America	86,685		1,148		-529		
Africa	1,981		137		-26		
Asia	44,202		1,105		-522		
Australia	51,505		403		-113		
Other countries	7,386				-1		
Off-balance-sheet exposures	**277,429**		**606**			**142**	
Netherlands	49,421		207			38	
Belgium & Luxembourg	35,464		140			45	
Germany	28,682		21			19	
UK	14,234		4			1	
France	9,503					1	
Spain	4,690		1			2	
Poland	11,819		20			4	
Italy	6,926					1	
Other Europe	30,932		28			6	
America	45,437		79			14	
Africa	618		53				
Asia	29,940		49			11	
Australia	9,686		3				
Other countries	76						
Total	**1,092,546**		**11,958**		**-5,687**	**142**	

Columns "Of which non-performing" and "of which subject to impairment" are kept empty (greyed) in line with the requirements for institutions with an NPL ratio lower than 5%.

In 2023, the on- and off-balance-sheet exposures on a total level gross carrying amount increased to EUR 1,092 billion, of which EUR 12.0 billion is in default. The defaulted exposure was mainly witnessed in Belgium in residential mortgages.

EU CQ4: Quality of non-performing exposures by geography

2022	Gross carrying/nominal amount	Of which non-performing	Of which defaulted	Of which subject to impairment	Accumulated impairment	Provisions on off-balance-sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on non-performing exposures
On-balance-sheet exposures	**813,903**		**11,431**		**-6,059**		
Netherlands	175,293		1,582		-812		
Belgium & Luxembourg	115,973		3,570		-1,196		
Germany	125,201		790		-732		
UK	22,772		341		-168		
France	25,302		197		-156		
Spain	35,567		246		-255		
Poland	41,842		701		-664		
Italy	16,725		359		-196		
Other Europe	63,891		1,107		-727		
America	88,304		609		-475		
Africa	2,135		67		-15		
Asia	44,268		1,390		-544		

Australia	51,224		471		-119		
Other countries	5,406				-1		
Off-balance-sheet exposures	**274,017**		**715**			**139**	
Netherlands	46,962		214			27	
Belgium & Luxembourg	35,014		161			52	
Germany	28,647		36			21	
UK	14,544		21				
France	9,428		38			1	
Spain	5,144		1				
Poland	9,745		10			1	
Italy	6,343		1				
Other Europe	31,154		31			10	
America	42,161		117			19	
Africa	613						
Asia	35,542		79			8	
Australia	8,645		6				
Other countries	75						
Total	**1,087,920**		**12,146**		**-6,059**	**139**	

Loans and advances to non-financial corporations by industry

Columns "Of which non-performing" and "Of which loans and advances subject to impairment" are kept empty (greyed) in line with the requirements for institutions with an NPL ratio lower than 5%.

EU CQ5: Credit quality of loans and advances to non-financial corporations by industry

2023	Gross carrying amount				Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
		Of which non-performing		Of which loans and advances subject to impairment		
			Of which defaulted			
Agriculture, forestry and fishing	3,198		314		-74	
Mining and quarrying	7,421		319		-203	
Manufacturing	47,372		1,132		-742	
Electricity, gas, steam & air conditioning supply	18,200		341		-191	
Water supply	2,473		34		-15	
Construction	9,507		345		-219	
Wholesale and retail trade	36,259		1,256		-744	
Transport and storage	25,224		363		-128	
Accommodation & food service activities	2,113		226		-157	
Information & communication	14,463		449		-214	
Real estate activities	33,990		886		-299	
Financial and insurance activities						
Professional, scientific & technical activities	8,394		193		-154	
Administrative & support service activities	13,046		283		-265	
Public admin. & defense, compulsory soc. security	1,171					
Education	306		3		-6	
Human health services & social work activities	6,113		108		-50	
Arts, entertainment & recreation	652		16		-16	
Other services	1,000		13		-14	
Total	**230,904**		**6,280**		**-3,490**	

EU CQ5: Credit quality of loans and advances to non-financial corporations by industry

2022	Gross carrying amount				Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
		Of which non-performing		Of which loans and advances subject to impairment		
			Of which defaulted			
Agriculture, forestry and fishing	3,610		302		-109	
Mining and quarrying	9,883		824		-378	
Manufacturing	48,295		1,253		-707	
Electricity, gas, steam & air conditioning supply	17,534		368		-204	
Water supply	2,449		25		-15	
Construction	9,397		353		-189	
Wholesale and retail trade	38,479		1,367		-725	
Transport and storage	24,384		332		-196	
Accommodation & food service activities	2,522		239		-155	
Information & communication	13,366		412		-170	
Real estate activities	35,121		518		-226	
Financial and insurance activities	6		1			
Professional, scientific & technical activities	9,362		226		-186	
Administrative & support service activities	12,883		234		-447	
Public admin. & defense, compulsory soc. security	1,069				-24	
Education	246		6		-4	
Human health services & social work activities	5,905		148		-143	
Arts, entertainment & recreation	670		21		-15	
Other services	865		16		-23	
Total	**236,045**		**6,646**		**-3,916**	

Credit risk mitigation

ING's lending and investment businesses are subject to credit risk. As such, the creditworthiness of our customers and investments is continually monitored for their ability to meet their financial obligations to ING Bank. In addition to determining the credit quality and creditworthiness of the customer, ING uses various credit risk mitigation techniques and instruments to mitigate the credit risk associated with an exposure and to reduce the losses incurred subsequent to an event of default on an obligation a customer may have towards ING. The most common terminology used in ING for credit risk protection is 'cover'. While a cover can be an important method for mitigation of credit risk and an alternative source of repayment, generally it is ING's practice to lend on the basis of the customer's creditworthiness rather than exclusively relying on the value of the cover. Within ING, there are two distinct forms of covers: assets and third party obligations.

Cover forms Assets

The asset that has been pledged to ING as collateral or security gives ING the right to liquidate it in the event where the customer is unable to fulfil its financial obligation. As such, the proceeds can be applied towards full or partial payments of the customer's outstanding exposure. An asset can be tangible (such as cash, securities, receivables, inventory, plant & machinery and mortgages on real estate properties) or intangible (such as patents, trademarks, contract rights and licenses).

Third party obligation

Third Party Obligation, indemnification or undertaking (either by contract and/or by law) is a legally binding declaration by a third party that gives ING the right to expect and claim from that third party to pay an amount, if the customer fails on its obligations to ING. The most common examples are guarantees (such as parent guarantees and export credit insurances) and letters of comfort.

Cover valuation methodology

General guidelines for cover valuation are established to ensure consistency of the application within ING. These general guidelines also require that the value of the cover is monitored on a regular basis, in principle at least annually. Covers shall be revalued accordingly and whenever there is reason to believe that the market is subject to significant changes in conditions. The frequency of monitoring and revaluation depends on the type of covers.

The valuation method also depends on the type of covers. For asset collateral, the valuation sources can be the customer's balance sheet (e.g. inventory, machinery, and equipment), nominal value (e.g. cash, receivables), market value (e.g. securities and commodities), independent appraiser (commercial real estate) and market indices (residential real estate). For third party obligations, the valuation is based on the value that is attributed to the contract between ING and that third party.

For the determination of the Credit Risk applicable amount for Pre-Settlement transactions, ING first matches trades with similar characteristics to determine their eligibility for offset. This offsetting effect is called 'compensation'. Subsequently, ING reduces the amount by any legal netting that may be permitted under various types of Master Agreements (such as ISDAs and GMRAs). Lastly, the amount is further reduced by any collateral that is held by ING under CSAs or other similar agreements.

For the other risk types and especially lending, covers are received that are intended to reduce the losses incurred subsequent to an event of default on an obligation a customer may have towards ING. These are subdivided into four groups called collateral values mortgages, cover values cash, cover value guarantees and other physical covers.

The table below presents the ING portfolio excluding equities per loan type. Exposures represent the outstanding and a loan is presented as secured by collateral or a guarantee if such a cover exists on a facility type. The secured amounts represent the part of the loan that is covered by the collateral. If a loan has both collateral and a guarantee than these are both shown in the designated column.

Credit Risk Mitigations techniques – overview

The table below presents the extent of the use of CRM techniques. All collaterals and financial guarantees are included for all secured exposures, irrespective of whether the standardized approach or the IRB approach is used for RWA calculation. In the column Exposures unsecured – Carrying amount are the exposures (net of allowances/impairments) that do not benefit from a CRM technique.

In the column Exposures to be secured are the exposures that have at least one CRM mechanism (collateral, financial guarantees, credit derivatives) associated with them.

EU CR3 – CRM techniques overview: Disclosure of the use of credit risk mitigation techniques

2023	Unsecured carrying amount	Secured carrying amount	Of which secured by collateral	Of which secured by financial guarantees	Of which secured by credit derivatives
Loans and advances	244,542	564,274	519,749	44,525	
Debt securities	91,991				
Total	336,534	564,274	519,749	44,525	
Of which non-performing exposures	2,154	5,405	4,819	586	
Of which defaulted	5,947	5,405			

For more information on the covers, please see the section 'credit risk mitigation' part of the Risk Management section of the Annual Report 2023.

EU CR3 – CRM techniques overview: Disclosure of the use of credit risk mitigation techniques

2022	Unsecured carrying amount	Secured carrying amount	Of which secured by collateral	Of which secured by financial guarantees	Of which secured by credit derivatives
Loans and advances	254,682	558,433	515,176	43,257	
Debt securities	83,551				
Total	338,233	558,433	515,176	43,257	
Of which non-performing exposures	2,416	5,184	4,598	586	
Of which defaulted	6,246	5,184			

Collateral obtained by taking possession and execution processes

Table EU CQ7 provides information about the collateral that has been obtained within the reporting period. Collateral obtained by talking possession includes assets that were not pledged by the debtor as collateral, but obtained in exchange for the cancellation of debt.

The value at initial recognition reflects the gross carrying amount at the point in time of the initial recognition in the balance sheet, while accumulated negative changes reflect the difference between the value at initial recognition and the carrying amount at the reporting date.

EU CQ7: Collateral obtained by taking possession and execution processes

2023	Collateral obtained by taking possession	
	Value at initial recognition	Accumulated negative changes
Property, plant and equipment (PP&E)	7	-2
Other than PP&E	7	
Residential immovable property	1	
Commercial Immovable property	7	
Movable property (auto, shipping, etc.)		
Equity and debt instruments		
Other collateral		
Total	**14**	**-2**

EU CQ7: Collateral obtained by taking possession and execution processes

2022	Collateral obtained by taking possession	
	Value at initial recognition	Accumulated negative changes
Property, plant and equipment (PP&E)	8	-2
Other than PP&E	9	
Residential immovable property	1	
Commercial Immovable property	8	
Movable property (auto, shipping, etc.)		
Equity and debt instruments		
Other collateral		
Total	**17**	**-2**

Advanced Internal Rating Based approach (AIRB)

Development of credit risk RWA

The table below explains the changes in Credit RWA in the AIRB portfolio during the reporting period and provides additional information by linking the impact of changes in portfolio composition, model changes and shifts in the risk environment on Credit RWA. The table reconciles movements in Credit RWA for the period for each Credit RWA risk type of ING for the AIRB portfolio including securitisations excluding equity and ONCOA. It does not include counterparty credit risk exposures under the Internal Model Method (IMM), as ING has not yet received regulatory approval to use IMM.

EU CR8 – RWEA flow statements of credit risk exposures under the IRB approach

	2023	2022
	Risk weighted exposure amount	Risk weighted exposure amount
Risk weighted exposure amount as at the end of the previous reporting period	**205,251**	**183,684**
Asset size (+/-)	-942	13,330
Asset quality (+/-)	-5,600	-7,744
Model updates (+/-)	-6,335	15,280
Methodology and policy (+/-)	-1,588	
Acquisitions and disposals (+/-)		
Foreign exchange movements (+/-)	-1,262	2,748
Other (+/-)	-3,817	-2,046
Risk weighted exposure amount as at the end of the reporting period	**185,707**	**205,251**

Over the year 2023 the credit RWA in the IRB portfolio decreased by EUR 19.8 billion from EUR 205.5 billion to EUR 185.7 billion.

- Asset Size impact was EUR -0.9 billion, mainly in Wholesale Banking due to the maturity impact;
- Asset quality improvements caused RWA to decrease by EUR -5.6 billion in 2023 as a result of risk profile changes across the business lines. Mainly seen for Wholesale Banking, with lending as its main driver;
- Total Model / Methodology impact in 2023 is EUR -7.9 billion, which includes multiple items, among others the redevelopment redevelopment of a rating system in Germany.
- In 2023, FX impact caused RWA to decrease by €1.3 billion, mainly due to depreciation of the US dollar;
- Other items decreased RWA by -€3.8 billion in 2023.

Overall, RWA management has a high priority throughout ING in all aspects of our business. From product design to pricing, RWA allocation and consumption is extensively monitored, reported and managed at all levels of the organisation.

Scope of the use of IRB and SA approaches

EU CR6-A – Scope of the use of IRB and SA approaches

2023

PD Scale	Exposure value as defined in Article 166 CRR for exposures subject to IRB approach	Total exposure value for exposures subject to the Standardised approach and to the IRB approach	Percentage of total exposure value subject to the permanent partial use of the SA (%)	Percentage of total exposure value subject to a roll-out plan (%)	Percentage of total exposure value subject to IRB Approach (%)
Central governments or central banks	201,742	300,927	100		
Of which Regional governments or local authorities		48,643	100		
Of which Public sector entities		10,696	100		
Institutions	64,169	88,985	1		99
Corporates	512,058	583,758	1	1	98
Of which Corporates - Specialised lending, excluding slotting approach		131,172		2	98
Of which Corporates - Specialised lending under slotting approach					
Retail	397,377	58,833	5	3	93
of which Retail – Secured by real estate SMEs		398,264	5	5	90
of which Retail – Secured by real estate non-SMEs		14,996	1	2	97
of which Retail – Qualifying revolving		337,345	1	4	95
of which Retail – Other SMEs					
of which Retail – Other non-SMEs		8,154	18	31	51
Equity		37,769	40	8	52
Other non-credit obligation assets					
Total	**1,175,346**	**1,371,934**	**24**	**2**	**74**

EU CR6-A – Scope of the use of IRB and SA approaches

2022

PD Scale	Exposure value as defined in Article 166 CRR for exposures subject to IRB approach	Total exposure value for exposures subject to the Standardised approach and to the IRB approach	Percentage of total exposure value subject to the permanent partial use of the SA (%)	Percentage of total exposure value subject to a roll-out plan (%)	Percentage of total exposure value subject to IRB Approach (%)
Central governments or central banks	207,367	338,121	100		
Of which Regional governments or local authorities		46,800	100		
Of which Public sector entities		11,835	100		
Institutions	65,453	98,661	1		99
Corporates	507,475	591,740	1	1	98
Of which Corporates - Specialised lending, excluding slotting approach		131,639		2	98
Of which Corporates - Specialised lending under slotting approach					
Retail	391,133	394,679	4	4	92
of which Retail – Secured by real estate SMEs		15,451	1	3	96
of which Retail – Secured by real estate non-SMEs		335,524	1	4	95
of which Retail – Qualifying revolving					
of which Retail – Other SMEs		7,602	14	26	60
of which Retail – Other non-SMEs		36,102	31	7	62
Equity					
Other non-credit obligation assets					
Total	**1,171,428**	**1,423,201**	**25**	**2**	**73**

AIRB credit exposures by exposure class and PD range

The table below provides an overview of the main parameters used for the calculation of capital requirements for AIRB models. The on- and off-balance sheet exposures are shown by the four main exposure classes and according to PD grades to enable an assessment of the credit quality of the portfolio. The exposures are bucketed in PD Scales prescribed by EBA. This bucketing of PD scales is not used within

ING. ING's Probability of Default (PD) rating models are based on a 1-22 scale, which corresponds to the same rating grades that are assigned by external rating agencies. Risk Ratings (PD) for performing loans (1-19) are calculated within ING with regulatory approved models. Risk Ratings for non-performing loans (20-22) are set on the basis of an approved discretionary methodology by the Global or Regional Restructuring unit. Overall the risk weights of the ING portfolio are a mixture of low risk weights for sovereigns and residential mortgages combined with higher risk weights for Corporates. Many central governments exposures receive a zero risk weight due to the high quality rating (permanent partial use of the SA rules). Mortgages generally benefit from large levels of (over) collateralisation.

The average Credit Conversion Factor (CCF), which is the conversion of off-balance sheet exposure into credit exposure equivalents, is calculated as the off-balance exposure post-CRM and post-CCF over the original off-balance sheet exposure. The CCF percentages are applied on product or transaction level and are regulatory driven.

EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range

2023

PD Scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjust-ments and provisions
Institutions												
0.00 to <0.15	26,468	46,841	0.07	29,774	0.06	2,685	22.89	3	4,869	0.16	4	-4
0.00 to <0.10	22,759	39,655	0.07	25,529	0.06	2,336	22.71	3	3,893	0.15	3	-3
0.10 to <0.15	3,709	7,186	0.07	4,245	0.12	350	23.99	3	976	0.23	1	-1
0.15 to <0.25	4,705	5,690	0.20	5,866	0.21	681	11.01	2	643	0.11	1	-1
0.25 to <0.50	6,552	6,636	0.33	8,715	0.33	1,011	6.53	2	889	0.10	2	-2
0.50 to <0.75	20	3	0.21	21	0.64	40	19.74	3	11	0.51		
0.75 to <2.50	449	2,383	0.06	599	1.40	356	16.20	2	256	0.43	1	-1
0.75 to <1.75	333	2,327	0.05	456	1.10	309	15.62	2	177	0.39	1	-1
1.75 to <2.5	116	56	0.48	143	2.35	47	18.04	2	79	0.55	1	
2.50 to <10.00	926	738	0.17	1,050	4.73	238	27.47	2	987	0.94	14	-6
2.5 to <5	894	669	0.18	1,013	4.67	193	27.25	2	928	0.92	13	-5
5 to <10	32	69	0.06	36	6.22	45	33.63	4	59	1.63	1	
10.00 to <100.00	51	452	0.09	94	17.76	3,509	16.64	1	92	0.99	3	-2
10 to <20	44	452	0.09	87	16.12	3,486	14.17	1	72	0.84	2	-1
20 to <30			0.50		24.58	15	19.85	2		1.23		
30.00 to <100.00	7		0.61	7	38.95	8	48.92	1	19	2.93	1	-1
100.00 (Default)	1	11	0.16	3	100.00	128	55.54	3	7	2.71	1	-1
	39,172	**62,754**	**0.11**	**46,121**	**0.30**	**8,646**	**18.29**	**3**	**7,754**	**0.17**	**27**	**-16**

EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range

2023

PD Scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjust-ments and provisions
Corporates Spec lending												
0.00 to <0.15	13,425	10,083	0.47	18,178	0.11	663	27.64	3	3,892	0.21	6	-7
0.00 to <0.10	4,036	5,404	0.50	6,762	0.08	180	29.29	2	1,040	0.15	2	-3
0.10 to <0.15	9,389	4,679	0.43	11,417	0.14	483	26.66	3	2,852	0.25	4	-4
0.15 to <0.25	16,974	19,857	0.24	21,681	0.21	1,146	22.14	3	5,310	0.24	10	-6
0.25 to <0.50	38,517	25,638	0.36	47,853	0.38	2,772	19.12	3	15,472	0.32	34	-29
0.50 to <0.75	117	85	0.35	147	0.69	41	23.61	2	47	0.32		
0.75 to <2.50	17,344	7,931	0.41	20,594	1.04	2,725	11.89	3	5,840	0.28	26	-19
0.75 to <1.75	16,260	7,590	0.41	19,395	0.96	2,424	11.83	3	5,426	0.28	22	-17
1.75 to <2.5	1,084	341	0.33	1,198	2.37	302	12.83	2	414	0.35	4	-2
2.50 to <10.00	2,122	1,417	0.21	2,426	4.94	416	17.78	2	1,565	0.64	21	-16
2.5 to <5	1,668	1,277	0.20	1,929	4.09	308	16.93	3	1,149	0.60	13	-12
5 to <10	454	140	0.29	497	8.25	108	21.07	2	416	0.84	9	-4
10.00 to <100.00	1,189	488	0.27	1,325	25.44	1,607	17.06	3	1,553	1.17	60	-48
10 to <20	255	361	0.25	346	16.25	1,520	16.23	2	284	0.82	9	-4
20 to <30	581	122	0.35	623	25.09	76	14.68	2	645	1.04	23	-16
30.00 to <100.00	353	5	0.43	355	35.00	11	22.03	3	624	1.76	27	-28
100.00 (Default)	1,867	309	0.32	1,965	100.00	165	28.54	2	2,041	1.04	733	-733
	91,555	**65,809**	**0.34**	**114,168**	**2.53**	**9,532**	**19.86**	**3**	**35,718**	**0.31**	**889**	**-858**

EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range

2023

PD Scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjust-ments and provisions
Corporates-SME												
0.00 to <0.15	1,236	720	0.30	1,458	0.11	2,157	25.65	3	240	0.16		
0.00 to <0.10	28	140	0.26	65	0.08	71	44.34	3	20	0.31		
0.10 to <0.15	1,208	580	0.31	1,394	0.11	2,086	24.78	3	220	0.16		
0.15 to <0.25	5,068	2,055	0.39	5,874	0.21	7,347	24.91	3	1,390	0.24	3	-1
0.25 to <0.50	4,434	2,880	0.36	5,473	0.37	5,873	30.57	3	2,141	0.39	6	-3
0.50 to <0.75	6,145	2,621	0.37	7,146	0.64	7,047	25.21	3	2,718	0.38	11	-6
0.75 to <2.50	16,456	5,764	0.36	18,594	1.42	16,003	24.37	3	10,440	0.56	65	-32
0.75 to <1.75	12,200	4,197	0.35	13,690	1.18	10,798	24.21	3	7,655	0.56	40	-18
1.75 to <2.5	4,256	1,567	0.40	4,904	2.10	5,210	24.79	2	2,785	0.57	25	-13
2.50 to <10.00	5,654	1,720	0.40	6,381	4.77	6,683	24.25	3	4,583	0.72	74	-51
2.5 to <5	3,851	1,300	0.41	4,403	3.77	4,783	23.90	3	2,866	0.65	40	-26
5 to <10	1,803	420	0.37	1,978	6.97	1,902	25.04	3	1,717	0.87	34	-25
10.00 to <100.00	2,442	609	0.39	2,703	19.30	7,411	25.96	2	3,296	1.22	133	-77
10 to <20	1,643	378	0.37	1,796	13.74	6,342	26.61	3	2,125	1.18	66	-41
20 to <30	526	175	0.44	606	25.57	721	25.79	2	874	1.44	40	-20
30.00 to <100.00	274	56	0.43	301	39.87	348	22.44	2	298	0.99	27	-16
100.00 (Default)	1,837	156	0.28	1,920	99.96	2,854	41.80	2	1,219	0.63	862	-847
	43,272	**16,524**	**0.37**	**49,548**	**6.23**	**55,340**	**26.02**	**3**	**26,026**	**0.53**	**1,154**	**-1,018**

EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range

2023

PD Scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjust-ments and provisions
Corporates-Other												
0.00 to <0.15	86,538	63,670	0.31	106,253	0.08	1,067	15.85	2	9,546	0.09	13	-10
0.00 to <0.10	60,310	41,988	0.28	72,109	0.06	563	15.06	2	5,498	0.08	6	-5
0.10 to <0.15	26,228	21,682	0.37	34,144	0.11	504	17.50	2	4,048	0.12	7	-5
0.15 to <0.25	93,887	46,683	0.31	108,188	0.19	1,257	11.34	1	11,490	0.11	23	-15
0.25 to <0.50	52,552	31,513	0.33	62,890	0.38	2,408	15.71	2	13,855	0.22	36	-25
0.50 to <0.75	152	18	0.42	160	0.56	73	29.42	3	85	0.53		
0.75 to <2.50	22,514	13,683	0.34	27,175	1.18	2,549	22.19	2	14,164	0.52	72	-80
0.75 to <1.75	20,890	12,891	0.34	25,234	1.09	2,273	21.22	2	12,088	0.48	56	-49
1.75 to <2.5	1,624	792	0.40	1,942	2.38	278	34.80	3	2,076	1.07	16	-31
2.50 to <10.00	8,611	3,066	0.27	9,436	4.30	863	13.38	2	4,385	0.46	57	-82
2.5 to <5	8,071	2,145	0.35	8,816	4.00	741	12.17	2	3,508	0.40	41	-47
5 to <10	540	921	0.09	621	8.62	126	30.65	3	878	1.41	16	-36
10.00 to <100.00	1,991	1,869	0.17	2,305	26.01	1,587	34.24	2	4,614	2.00	204	-197
10 to <20	216	1,336	0.16	431	16.16	1,413	29.74	3	719	1.67	21	-25
20 to <30	1,584	366	0.20	1,658	27.16	133	37.23	2	3,641	2.20	168	-155
30.00 to <100.00	191	166	0.15	216	36.86	41	20.17	2	254	1.18	15	-17
100.00 (Default)	2,160	351	0.29	2,260	100.00	275	30.53	2	2,247	0.99	890	-890
	268,405	**160,853**	**0.31**	**318,668**	**1.29**	**10,052**	**15.00**	**2**	**60,386**	**0.19**	**1,296**	**-1,300**

EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range

2023

PD Scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjust-ments and provisions
Retail - Secured by immovable property SME												
0.00 to <0.15	2,478	168	0.78	2,609	0.09	12,515	18.76		107	0.04		
0.00 to <0.10	2,232	113	0.86	2,329	0.08	11,027	18.09		91	0.04		
0.10 to <0.15	246	55	0.61	280	0.11	1,488	24.33		17	0.06		
0.15 to <0.25	3,421	216	0.70	3,572	0.20	16,676	20.57		291	0.08	1	-1
0.25 to <0.50	1,487	203	0.68	1,626	0.37	8,635	23.37		232	0.14	1	-1
0.50 to <0.75	1,478	206	0.59	1,601	0.64	6,626	22.43		328	0.21	2	-1
0.75 to <2.50	2,957	338	0.62	3,171	1.39	14,166	24.80		1,246	0.39	11	-5
0.75 to <1.75	2,445	283	0.62	2,625	1.25	12,246	24.35		970	0.37	8	-3
1.75 to <2.5	511	55	0.60	546	2.08	1,920	26.97		276	0.51	3	-2
2.50 to <10.00	1,114	118	0.53	1,180	4.27	5,323	23.68		851	0.72	12	-9
2.5 to <5	845	92	0.55	898	3.37	3,965	23.37		587	0.65	7	-5
5 to <10	269	26	0.47	282	7.12	1,358	24.68		264	0.94	5	-4
10.00 to <100.00	391	24	0.53	405	22.49	1,924	25.10		525	1.30	23	-15
10 to <20	234	19	0.52	245	14.67	1,177	24.72		306	1.25	9	-6
20 to <30	78	3	0.67	81	24.98	364	24.93		117	1.44	5	-3
30.00 to <100.00	78	1	0.41	79	44.09	383	26.45		102	1.28	9	-5
100.00 (Default)	345	9	0.46	350	100.00	1,529	45.52		242	0.69	141	-82
	13,671	**1,282**	**0.65**	**14,514**	**3.87**	**67,394**	**22.67**		**3,822**	**0.26**	**192**	**-113**

EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range

2023

PD Scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjust-ments and provisions
Retail - Secured by immovable property non-SME												
0.00 to <0.15	187,900	5,544	0.82	192,435	0.08	1,159,326	26.94		10,718	0.06	39	-14
0.00 to <0.10	120,874	4,265	0.99	125,095	0.06	801,410	31.59		6,894	0.06	23	-8
0.10 to <0.15	67,025	1,279	0.24	67,340	0.13	357,916	18.31		3,825	0.06	16	-6
0.15 to <0.25	48,958	1,438	0.79	50,102	0.18	249,873	22.23		4,751	0.09	21	-9
0.25 to <0.50	29,784	673	0.78	30,315	0.34	125,990	18.04		3,521	0.12	19	-7
0.50 to <0.75	17,495	213	0.95	17,698	0.60	73,585	17.14		2,911	0.16	18	-5
0.75 to <2.50	18,981	309	0.92	19,265	1.35	98,693	24.81		7,995	0.42	63	-24
0.75 to <1.75	14,310	157	0.89	14,450	1.12	76,552	23.99		5,245	0.36	37	-13
1.75 to <2.5	4,671	151	0.95	4,815	2.07	22,141	27.27		2,750	0.57	27	-11
2.50 to <10.00	5,141	77	0.77	5,201	4.75	26,108	20.17		3,574	0.69	50	-33
2.5 to <5	3,677	53	0.80	3,720	3.80	17,849	19.64		2,234	0.60	27	-18
5 to <10	1,464	25	0.70	1,482	7.15	8,259	21.51		1,340	0.90	22	-15
10.00 to <100.00	2,898	25	0.83	2,919	21.62	15,262	21.36		3,713	1.27	140	-110
10 to <20	1,829	21	0.81	1,846	14.55	9,364	20.74		2,142	1.16	55	-52
20 to <30	289	2	0.97	291	24.99	1,900	23.98		491	1.69	17	-8
30.00 to <100.00	780	2	0.89	782	37.07	3,998	21.85		1,079	1.38	67	-49
100.00 (Default)	2,819	16	0.39	2,832	100.00	16,475	41.46		4,608	1.63	819	-354
	313,976	**8,295**	**0.82**	**320,767**	**1.38**	**1,765,312**	**24.66**		**41,791**	**0.13**	**1,168**	**-556**

EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range

2023

PD Scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjust-ments and provisions
Retail Other SME												
0.00 to <0.15	196	270	0.41	307	0.10	21,861	34.26		24	0.08		
0.00 to <0.10	82	67	0.55	119	0.08	16,192	32.53		8	0.07		
0.10 to <0.15	114	204	0.36	187	0.11	5,669	35.36		15	0.08		
0.15 to <0.25	443	180	0.57	546	0.22	24,837	30.69		63	0.12		
0.25 to <0.50	449	439	0.74	776	0.37	28,170	43.57		198	0.25	1	-1
0.50 to <0.75	332	239	0.72	505	0.66	14,495	38.77		162	0.32	1	-1
0.75 to <2.50	836	483	0.73	1,192	1.36	52,063	42.28		562	0.47	7	-6
0.75 to <1.75	688	426	0.75	1,007	1.23	46,639	43.40		486	0.48	5	-5
1.75 to <2.5	148	57	0.61	185	2.06	5,424	36.15		76	0.41	1	-1
2.50 to <10.00	427	137	0.61	516	4.77	34,908	40.66		292	0.57	10	-14
2.5 to <5	255	102	0.62	320	3.55	25,404	42.30		187	0.59	5	-6
5 to <10	172	35	0.60	195	6.77	9,504	37.97		105	0.53	5	-7
10.00 to <100.00	180	54	0.53	211	19.97	34,437	41.47		183	0.87	17	-17
10 to <20	133	43	0.53	157	15.11	30,564	41.45		132	0.84	10	-10
20 to <30	23	9	0.58	28	25.04	2,731	45.34		29	1.02	3	-3
30.00 to <100.00	24	2	0.43	25	44.34	1,146	37.31		22	0.87	4	-4
100.00 (Default)	164	23	0.49	181	98.40	12,041	68.15		212	1.17	106	-79
	3,027	**1,826**	**0.65**	**4,233**	**6.34**	**222,808**	**40.89**		**1,696**	**0.40**	**143**	**-118**

EU CR6 – IRB approach – Credit risk exposures by exposure class and PD range

2023

PD Scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjust-ments and provisions
Retail Other non-SME												
0.00 to <0.15	1,127	5,672	0.66	4,876	0.06	2,707,681	55.33		682	0.14	2	-1
0.00 to <0.10	924	4,257	0.68	3,832	0.05	2,069,360	54.55		381	0.10	1	
0.10 to <0.15	203	1,415	0.59	1,043	0.13	638,321	58.22		301	0.29	1	-1
0.15 to <0.25	1,739	95	0.54	1,791	0.21	197,158	29.50		234	0.13	1	
0.25 to <0.50	1,953	422	0.60	2,243	0.41	403,276	39.41		686	0.31	4	-2
0.50 to <0.75	1,298	221	0.59	1,428	0.68	188,864	41.78		604	0.42	4	-3
0.75 to <2.50	3,262	398	0.57	3,490	1.43	432,697	45.84		2,263	0.65	23	-17
0.75 to <1.75	2,380	318	0.57	2,564	1.21	312,270	44.25		1,524	0.59	14	-10
1.75 to <2.5	882	80	0.55	926	2.03	120,427	50.26		739	0.80	10	-7
2.50 to <10.00	2,699	129	0.53	2,775	5.17	316,314	36.53		1,770	0.64	46	-38
2.5 to <5	1,443	100	0.54	1,504	3.54	160,342	46.00		1,177	0.78	23	-20
5 to <10	1,256	29	0.52	1,271	7.10	155,972	25.34		593	0.47	22	-18
10.00 to <100.00	463	17	0.56	487	29.50	64,608	46.97		687	1.41	66	-37
10 to <20	223	10	0.59	240	14.09	41,873	46.88		274	1.14	16	-12
20 to <30	51	1	0.53	52	24.49	4,157	37.00		49	0.94	5	-4
30.00 to <100.00	188	6	0.50	195	49.86	18,578	49.73		364	1.87	45	-20
100.00 (Default)	549	12	0.05	551	91.89	151,985	71.90		1,404	2.55	289	-199
	13,090	**6,967**	**0.64**	**17,641**	**4.93**	**4,462,583**	**45.04**		**8,329**	**0.47**	**434**	**-298**

The PD, LGD, EAD and maturity are drivers of RWA and RWA density. RWA density is measured as the RWA over the EAD and increases with each PD scale. In several instances, the RWA Density is lower than one might expect due to the loans guaranteed by an Export Credit Agency (ECA). For instance in Corporates-Other, cashpool activities from BMG are included causing a low RWA density. These ECAs offer loans and insurance to help remove the risk of uncertainty of exporting to other countries and underwrite the political risk and commercial risks of overseas investments, and as such lower the LGD for these loans. With very low LGDs as a result the RWA is lower than would be assumed in a higher PD class.

The overall RWA amount decreased from EUR 205.3 in 2022 to EUR 185.8 billion in 2023. The decrease is mainly witnessed in Corporates - Other (- EUR 27.7 billion) and Retail – Non-SMEs- Other (- EUR 6.0 billion). The highest RWA density was in Retail-other SME 47%.

EU CR7 – IRB approach – Effect on the RWEAs of credit derivatives used as CRM techniques

		2023	2023
		Pre-credit derivatives risk weighted exposure amount	Actual risk weighted exposure amount
1	**Exposures under F-IRB**		
2	Central governments and central banks		
3	Institutions		
4	Corporates		
4	of which Corporates - SMEs		
4	of which Corporates - Specialised lending		
5	**Exposures under A-IRB**	**185,814**	**185,707**
6	Central governments and central banks		
7	Institutions	7,754	7,934
8	Corporates	122,443	122,135
8	of which Corporates - SMEs	26,026	26,026
8	*of which Corporates - Specialised lending*	35,718	35,718
8	of which Corporates - Other	60,698	60,390
9	*Retail*	55,617	55,638
9	*of which Retail – SMEs - Secured by immovable property collateral*	3,822	3,822
9	*of which Retail – non-SMEs - Secured by immovable property collateral*	41,791	41,791
9	*of which Retail – Qualifying revolving*		
9	*of which Retail – SMEs - Other*	1,695	1,696
10	*of which Retail – Non-SMEs- Other*	8,309	8,329
10	**TOTAL (including F-IRB exposures and A-IRB exposures)**	**185,814**	**185,707**

EU CR7 – IRB approach – Effect on the RWEAs of credit derivatives used as CRM techniques

		2022	2022
		Pre-credit derivatives risk weighted exposure amount	Actual risk weighted exposure amount
1	**Exposures under F-IRB**		
2	Central governments and central banks		
3	Institutions		
4	Corporates		
4	*of which Corporates - SMEs*		
4	*of which Corporates - Specialised lending*		
5	**Exposures under A-IRB**	**205,493**	**205,124**
6	Central governments and central banks		
7	Institutions	8,085	8,083
8	Corporates	138,156	137,788
8	*of which Corporates - SMEs*	10,971	10,971
8	*of which Corporates - Specialised lending*	38,856	38,856
8	*of which Corporates - Other*	88,330	87,962
9	Retail	59,253	59,253
9	*of which Retail – SMEs - Secured by immovable property collateral*	3,721	3,721
9	*of which Retail – non-SMEs - Secured by immovable property collateral*	39,321	39,321
9	*of which Retail – Qualifying revolving*		
9	*of which Retail – SMEs - Other*	1,898	1,898
10	*of which Retail – Non-SMEs- Other*	14,313	14,313
10	**TOTAL (including F-IRB exposures and A-IRB exposures)**	**205,493**	**205,124**

EU CR7-A – IRB approach – Disclosure of the extent of the use of CRM techniques

2023	Total exposures	Credit risk Mitigation techniques											Credit risk Mitigation methods in the calculation of RWEAs	
		Funded credit Protection (FCP)									Unfunded credit Protection (UFCP)			
		Part of exposures covered by Financial Collaterals (%)	Part of exposures covered by Other eligible collaterals (%)				Part of exposures covered by Other funded credit protection (%)				Part of exposures covered by Guarantees (%)	Part of exposures covered by Credit Derivatives (%)	RWEA without substitution effects (reduction effects only)	RWEA with substitution effects (both reduction and substitution effects)
				Part of exposures covered by Immovable property Collaterals (%)	Part of exposures covered by Receivables (%)	Part of exposures covered by Other physical collateral (%)		Part of exposures covered by Cash on deposit (%)	Part of exposures covered by Life insurance policies (%)	Part of exposures covered by Instruments held by a third party (%)				
1 Central governments and central banks														
2 Institutions	47,285	3.33 %	101.39 %	7.26 %	89.55 %	4.58 %					9.00 %	— %	7,934	7,934
3 Corporates	482,419	43.22 %	53.24 %	27.53 %	6.00 %	19.70 %					16.02 %	0.27 %	122,135	122,135
Of which Corporates – SMEs	49,548	3.13 %	151.18 %	89.04 %	10.93 %	51.22 %					16.38 %		26,026	26,026
Of which Corporates – Specialised lending	114,168	3.87 %	111.87 %	69.61 %	5.58 %	36.68 %					23.47 %	0.03 %	35,718	35,718
Of which Corporates – Other	318,702	63.55 %	17.01 %	2.90 %	5.39 %	8.72 %					13.29 %	0.40 %	60,390	60,390
4 Retail	357,154	5.85 %	218.59 %	217.25 %	0.19 %	1.16 %					7.03 %		55,638	55,638
Of which Retail – Immovable property SMEs	14,514	4.62 %	180.91 %	167.34 %	2.96 %	10.62 %					8.13 %		3,822	3,822
Of which Retail – Immovable property non-SMEs	320,767	5.68 %	234.37 %	234.32 %	0.05 %	— %					7.10 %		41,791	41,791
Of which Retail – Qualifying revolving														
Of which Retail – Other SMEs	4,233	18.08 %	62.54 %		2.19 %	60.36 %					27.05 %		1,696	1,696
Of which Retail – Other non-SMEs	17,641	7.09 %	0.17 %		0.01 %	0.16 %					0.13 %		8,329	8,329
5 **Total**	**886,858**	**26.05 %**	**122.40 %**	**102.85 %**	**8.12 %**	**11.43 %**					**12.02 %**	**0.15 %**	**185,707**	**185,707**

EU CR7-A – IRB approach – Disclosure of the extent of the use of CRM techniques

2022	Total exposures	Credit risk Mitigation techniques											Credit risk Mitigation methods in the calculation of RWEAs	
		Funded credit Protection (FCP)									Unfunded credit Protection (UFCP)			
			Part of exposures covered by Other eligible collaterals (%)				Part of exposures covered by Other funded credit protection (%)							
		Part of exposures covered by Financial Collaterals (%)		Part of exposures covered by Immovable property Collaterals (%)	Part of exposures covered by Receivables (%)	Part of exposures covered by Other physical collateral (%)		Part of exposures covered by Cash on deposit (%)	Part of exposures covered by Life insurance policies (%)	Part of exposures covered by Instruments held by a third party (%)	Part of exposures covered by Guarantees (%)	Part of exposures covered by Credit Derivatives (%)	RWEA without substitution effects (reduction effects only)	RWEA with substitution effects (both reduction and sustitution effects)
1 Central governments and central banks														
2 Institutions	48,921	11.45 %	94.87 %	5.97 %	85.08 %	3.82 %					7.94 %	0.20 %	8,083	8,083
3 Corporates	478,480	41.61 %	59.06 %	28.67 %	6.30 %	24.09 %					15.96 %	0.29 %	137,788	137,788
Of which Corporates – SMEs	26,466	2.25 %	143.70 %	93.25 %	6.92 %	43.53 %					16.98 %		10,971	10,971
Of which Corporates – Specialised lending	111,458	3.26 %	116.31 %	76.05 %	6.46 %	33.80 %					22.53 %	0.03	38,856	38,856
Of which Corporates – Other	340,556	57.22 %	33.74 %	8.15 %	6.20 %	19.39 %					13.73 %	0.39 %	87,962	87,962
4 Retail	359,609	1.84 %	190.88 %	189.69 %	0.15 %	1.04 %					6.67 %		59,253	59,253
Of which Retail – Immovable property SMEs	14,958	1.41 %	169.79 %	158.54 %	2.02 %	9.24 %					8.06 %		3,721	3,721
Of which Retail – Immovable property non-SMEs	315,731	1.46 %	208.61 %	208.54 %	0.06 %	0.01 %					6.80 %		39,321	39,321
Of which Retail – Qualifying revolving														
Of which Retail – Other SMEs	4,812	14.48 %	48.98 %		1.21 %	47.77 %					26.92 %		1,898	1,898
Of which Retail – Other non-SMEs	24,107	4.57 %	0.16 %		0.01 %	0.15 %					0.12 %		14,313	14,313
5 **Total**	**887,009**	**23.82 %**	**114.48 %**	**92.70 %**	**8.15 %**	**13.62 %**					**11.75 %**	**0.17 %**	**205,124**	**205,124**

Backtesting of model parameters

ING has dedicated AIRB credit risk models per business line and geography. The performance and predictive power of the models is monitored by Model Development, that is part of the Financial Risk department. Moreover, an independent Model Risk Management department periodically reviews all AIRB models. All models are backtested when possible by both the Model development and the independent Model Risk Management departments.

If a model is considered not to be robust or backtesting indicates insufficient performance, then the model is either re-calibrated or re-developed. All model recommendations from the Model Risk Management department are tracked via an internal database that management uses to track issues detected by the Internal Audit department, incidents and non-financial risk issues. All significant model changes are submitted to the ECB and implemented after regulatory approval.

PD backtesting

The PD backtesting is performed per exposure class and PD-range, corresponding to the internal rating scales 1 to 19, which are then mapped to comparable rating grades from Standard & Poor's. Securitisations and Equity exposures are not included in these tables.

The average PD as of 31 December 2023 per portfolio is split per exposure class and rating grade. Both the number and the amount-weighted predicted PD figures are shown for the performing portfolios. The number weighted predicted PD is also referred to as the arithmetic weighted PD, and the amount weighted PD is referred to as the EAD-weighted PD.

The Annual Average historical default rate is calculated over the last 6 years. The performing clients at the end of each year were followed through the following year (12 months) and their into-default moments were flagged each month. In case a client went into-default more than once within the 12-month observation period, the last (i.e. most recent) observed into-default moment was used. The annual average observed default rate represents the average of the 6 years observed number weighted default rates.

EU CR9.1 –IRB approach – Back-testing of PD per exposure class (only for PD estimates)

2023

PD Range	External rating equivalent	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Average PD (%)	Average historical annual default (%)
Institutions						
0.00 - 0.01	AAA	19		0.00	0.00	0.00
0.01 - 0.02	AA+	29		0.00	0.00	0.00
0.02 - 0.03	AA	62		0.00	0.00	0.00
0.03 - 0.04	AA-	88		0.00	0.00	0.00
0.04 - 0.05	A+	1,251	1	0.00	0.00	0.00
0.05 - 0.07	A	722	2	0.00	0.00	0.00
0.07 - 0.11	A-	292	4	0.01	0.00	0.00
0.11 - 0.17	BBB+	361		0.00	0.00	0.00
0.17 - 0.27	BBB	483		0.00	0.00	0.01
0.27 - 0.44	BBB-	695	2	0.00	0.00	0.00
0.44 - 0.73	BB+	248	1	0.00	0.00	0.01
0.73 - 1.26	BB	171	6	0.04	0.01	0.02
1.26 - 2.24	BB-	145	1	0.01	0.01	0.02
2.24 - 4.09	B+	92	11	0.12	0.03	0.08
4.09 - 7.66	B	141	6	0.04	0.05	0.06
7.66 - 14.78	B-	60	5	0.08	0.09	0.07
14.78 - 22.73	CCC	77	2	0.03	0.17	0.05
22.73 - 29.58	CC	29	6	0.21	0.26	0.33
29.58 - 100.00	C	5		0.00	0.38	0.17

EU CR9.1 –IRB approach – Back-testing of PD per exposure class (only for PD estimates)						
2023						
PD Range	External rating equivalent	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Average PD (%)	Average historical annual default (%)
Corporates Spec lending						
0.00 - 0.01	AAA					
0.01 - 0.02	AA+					
0.02 - 0.03	AA	8		0.00	0.00	0.00
0.03 - 0.04	AA-	6		0.00	0.00	0.00
0.04 - 0.05	A+	7		0.00	0.00	0.00
0.05 - 0.07	A	31		0.00	0.00	0.00
0.07 - 0.11	A-	123	1	0.01	0.00	0.00
0.11 - 0.17	BBB+	711		0.00	0.00	0.00
0.17 - 0.27	BBB	928	5	0.01	0.00	0.00
0.27 - 0.44	BBB-	1,312	5	0.00	0.00	0.01
0.44 - 0.73	BB+	1,635	9	0.01	0.00	0.01
0.73 - 1.26	BB	1,403	5	0.00	0.01	0.00
1.26 - 2.24	BB-	1,055	16	0.02	0.01	0.01
2.24 - 4.09	B+	311	3	0.01	0.02	0.01
4.09 - 7.66	B	306	5	0.02	0.04	0.02
7.66 - 14.78	B-	85	5	0.06	0.08	0.05
14.78 - 22.73	CCC	136	3	0.02	0.14	0.06
22.73 - 29.58	CC	81	8	0.10	0.23	0.13
29.58 - 100.00	C	38	10	0.26	0.29	0.30

EU CR9.1 –IRB approach – Back-testing of PD per exposure class (only for PD estimates)						
2023						
PD Range	External rating equivalent	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Average PD (%)	Average historical annual default (%)
Corporates-SME						
0.00 - 0.01	AAA					
0.01 - 0.02	AA+					
0.02 - 0.03	AA					
0.03 - 0.04	AA-	6	—	0.00	0.00	0.00
0.04 - 0.05	A+	1	—	0.00	0.00	0.00
0.05 - 0.07	A	1	—	0.00	0.00	0.00
0.07 - 0.11	A-	1,809	5	0.00	0.00	0.00
0.11 - 0.17	BBB+	5,221	31	0.01	0.00	0.00
0.17 - 0.27	BBB	125	1	0.01	0.00	0.01
0.27 - 0.44	BBB-	4,731	20	0.00	0.00	0.01
0.44 - 0.73	BB+	3,687	37	0.01	0.01	0.01
0.73 - 1.26	BB	5,518	50	0.01	0.01	0.01
1.26 - 2.24	BB-	5,522	80	0.01	0.02	0.01
2.24 - 4.09	B+	2,878	69	0.02	0.03	0.03
4.09 - 7.66	B	2,424	97	0.04	0.05	0.04
7.66 - 14.78	B-	691	59	0.09	0.10	0.08
14.78 - 22.73	CCC	538	53	0.10	0.16	0.12
22.73 - 29.58	CC	324	59	0.18	0.23	0.20
29.58 - 100.00	C	213	70	0.33	0.34	0.28

EU CR9.1 –IRB approach – Back-testing of PD per exposure class (only for PD estimates)

2023

PD Range	External rating equivalent	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Average PD (%)	Average historical annual default (%)
Corporates-Other						
0.00 - 0.01	AAA	3		0.00	0.00	0.00
0.01 - 0.02	AA+	13		0.00	0.00	0.00
0.02 - 0.03	AA	34		0.00	0.00	0.00
0.03 - 0.04	AA-	38		0.00	0.00	0.00
0.04 - 0.05	A+	92		0.00	0.00	0.00
0.05 - 0.07	A	223	2	0.00	0.00	0.00
0.07 - 0.11	A-	662	2	0.00	0.00	0.00
0.11 - 0.17	BBB+	2,275	1	0.00	0.00	0.00
0.17 - 0.27	BBB	1,721	6	0.00	0.00	0.00
0.27 - 0.44	BBB-	3,210	2	0.00	0.00	0.00
0.44 - 0.73	BB+	2,808	5	0.01	0.01	0.01
0.73 - 1.26	BB	4,198	7	0.01	0.01	0.01
1.26 - 2.24	BB-	4,355	17	0.01	0.01	0.01
2.24 - 4.09	B+	2,117	19	0.03	0.03	0.02
4.09 - 7.66	B	2,171	15	0.05	0.05	0.03
7.66 - 14.78	B-	519	16	0.09	0.09	0.06
14.78 - 22.73	CCC	805	4	0.15	0.15	0.08
22.73 - 29.58	CC	524	42	0.24	0.24	0.11
29.58 - 100.00	C	244	19	0.36	0.36	0.19

EU CR9.1 –IRB approach – Back-testing of PD per exposure class (only for PD estimates)

2023

PD Range	External rating equivalent	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Average PD (%)	Average historical annual default (%)
Retail - Secured by immovable property SME						
0.00 - 0.01	AAA					
0.01 - 0.02	AA+					
0.02 - 0.03	AA	207		0.00	0.00	0.00
0.03 - 0.04	AA-	3,917	3	0.00	0.00	0.00
0.04 - 0.05	A+					
0.05 - 0.07	A	208	—	0.00	0.00	0.00
0.07 - 0.11	A-	8,578	14	0.00	0.00	0.00
0.11 - 0.17	BBB+	12,144	23	0.00	0.00	0.00
0.17 - 0.27	BBB	6,962	19	0.00	0.00	0.00
0.27 - 0.44	BBB-	7,476	19	0.00	0.00	0.01
0.44 - 0.73	BB+	6,614	32	0.00	0.01	0.01
0.73 - 1.26	BB	6,627	56	0.01	0.01	0.01
1.26 - 2.24	BB-	6,366	36	0.01	0.02	0.01
2.24 - 4.09	B+	3,681	65	0.02	0.03	0.02
4.09 - 7.66	B	1,650	67	0.04	0.05	0.04
7.66 - 14.78	B-	797	58	0.07	0.09	0.08
14.78 - 22.73	CCC	750	69	0.09	0.16	0.10
22.73 - 29.58	CC	379	63	0.17	0.25	0.21
29.58 - 100.00	C	359	127	0.35	0.43	0.34

EU CR9.1 –IRB approach – Back-testing of PD per exposure class (only for PD estimates)

2023

PD Range	External rating equivalent	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Average PD (%)	Average historical annual default (%)
Retail - Secured by immovable property non-SME						
0.00 - 0.01	AAA	71,612	19	0.00	0.00	0.00
0.01 - 0.02	AA+	72,189	48	0.00	0.00	0.00
0.02 - 0.03	AA	76,795	91	0.00	0.00	0.00
0.03 - 0.04	AA-	43,018	51	0.00	0.00	0.00
0.04 - 0.05	A+	33,649	77	0.00	0.00	0.00
0.05 - 0.07	A	127,623	147	0.00	0.00	0.00
0.07 - 0.11	A-	344,628	479	0.00	0.00	0.00
0.11 - 0.17	BBB+	368,399	736	0.00	0.00	0.00
0.17 - 0.27	BBB	219,839	510	0.00	0.00	0.00
0.27 - 0.44	BBB-	147,925	592	0.00	0.00	0.00
0.44 - 0.73	BB+	106,120	738	0.01	0.01	0.01
0.73 - 1.26	BB	42,230	405	0.01	0.01	0.01
1.26 - 2.24	BB-	30,926	401	0.01	0.01	0.02
2.24 - 4.09	B+	25,952	666	0.03	0.03	0.03
4.09 - 7.66	B	7,913	283	0.04	0.05	0.06
7.66 - 14.78	B-	7,229	514	0.07	0.09	0.06
14.78 - 22.73	CCC	5,668	666	0.12	0.16	0.12
22.73 - 29.58	CC	3,054	628	0.21	0.28	0.21
29.58 - 100.00	C	3,519	1,185	0.34	0.45	0.32

EU CR9.1 –IRB approach – Back-testing of PD per exposure class (only for PD estimates)

2023

PD Range	External rating equivalent	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Average PD (%)	Average historical annual default (%)
Retail Other SME						
0.00 - 0.01	AAA					
0.01 - 0.02	AA+					
0.02 - 0.03	AA	1,344	1	0.00	0.00	0.00
0.03 - 0.04	AA-	3,610	2	0.00	0.00	0.00
0.04 - 0.05	A+					
0.05 - 0.07	A	2,021	1	0.00	0.00	0.00
0.07 - 0.11	A-	15,146	33	0.00	0.00	0.00
0.11 - 0.17	BBB+	24,879	78	0.00	0.00	0.01
0.17 - 0.27	BBB	26,274	72	0.00	0.00	0.00
0.27 - 0.44	BBB-	33,448	179	0.01	0.01	0.01
0.44 - 0.73	BB+	19,733	135	0.01	0.01	0.01
0.73 - 1.26	BB	32,196	609	0.02	0.01	0.03
1.26 - 2.24	BB-	39,020	3,060	0.08	0.01	0.09
2.24 - 4.09	B+	24,185	2,892	0.12	0.03	0.16
4.09 - 7.66	B	17,609	1,383	0.08	0.05	0.13
7.66 - 14.78	B-	5,786	672	0.12	0.09	0.12
14.78 - 22.73	CCC	14,777	2,885	0.20	0.16	0.25
22.73 - 29.58	CC	3,079	995	0.32	0.25	0.35
29.58 - 100.00	C	1,054	396	0.38	0.45	0.48

EU CR9.1 –IRB approach – Back-testing of PD per exposure class (only for PD estimates)

2023

PD Range	External rating equivalent	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Average PD (%)	Average historical annual default (%)
Retail Other non-SME						
0.00 - 0.01	AAA	2,196,235	830	0.00	0.00	0.00
0.01 - 0.02	AA+	824,535	795	0.00	0.00	0.00
0.02 - 0.03	AA	49,131	7	0.00	0.00	0.00
0.03 - 0.04	AA-	641,788	589	0.00	0.00	0.00
0.04 - 0.05	A+	90	—	0.00	0.00	0.00
0.05 - 0.07	A	56,793	44	0.00	0.00	0.00
0.07 - 0.11	A-	187,800	416	0.00	0.00	0.00
0.11 - 0.17	BBB+	962,007	2,034	0.00	0.00	0.00
0.17 - 0.27	BBB	401,550	860	0.00	0.00	0.00
0.27 - 0.44	BBB-	212,000	1,028	0.00	0.00	0.01
0.44 - 0.73	BB+	323,729	18,221	0.06	0.00	0.06
0.73 - 1.26	BB	296,866	2,126	0.01	0.01	0.01
1.26 - 2.24	BB-	410,281	4,770	0.01	0.01	0.02
2.24 - 4.09	B+	434,502	5,823	0.01	0.03	0.02
4.09 - 7.66	B	103,443	3,145	0.03	0.04	0.04
7.66 - 14.78	B-	158,923	14,584	0.09	0.09	0.09
14.78 - 22.73	CCC	49,739	6,908	0.14	0.16	0.14
22.73 - 29.58	CC	2,745	708	0.26	0.26	0.31
29.58 - 100.00	C	20,398	4,393	0.22	0.37	0.30

It should be noted that some of the observed values related to low number of observations (in particular for Sovereigns), hence the numbers should be interpreted with care. For some of the ratings, in particular for the Corporate exposures class, some of the observed values fall above the range of estimation. Until the models have been redeveloped and approved in the context of incorporating new regulations, this has been compensated by add-ons or other prudential measures. Overall, the EL backtest (see EU CR9) does not exhibit underestimations.

Simple risk weight method

A small part of the equity exposure of ING's portfolio is subject to the simple risk weight method for calculating the regulatory capital.

The table below shows more details on the equity exposure for which the simple risk weight method is used.

EU CR10.5 – Equity exposures under the simple risk-weighted approach

	Equity exposures under the simple risk-weighted approach								
	On balance sheet amount		**RW**	**Exposure amount**		**RWA**		**Capital requirements**	
Categories	**2023**	**2022**		**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Private equity exposures	126	165	290 %	126	165	366	480	29	38
Exchange-traded equity exposures	577	542	190 %	577	542	1,097	1,029	88	82
Other equity exposures			370 %						
Total	**703**	**707**		**703**	**707**	**1,462**	**1,509**	**117**	**121**

In 2023, the total value of ING equity investments reported under simple risk weighted approach decreased by EUR 4 million to EUR 703 million (2022: EUR 707 million). As a result, the total value of RWA under simple risk weight method and the total value of regulatory capital decreased by EUR 46 million and EUR 4 million respectively.

Standardised Approach

Exposures before and after risk mitigation for the SA portfolio

The table below shows how credit risk mitigation (CRM) in the SA portfolio is distributed over the exposure classes. ING's exposure value is shown before and after credit risk mitigation. There are three principal methods for reducing or mitigating Credit Risk: i) by reduction of credit risk through the acceptance of pledged financial assets as collateral or mitigation or shifting of credit risks to a lower risk weighting group, ii) by accepting guarantees from unrelated third parties, or iii) secured by mortgages. ING uses these methods to take CRM effects into account. For financial markets collateral, ING uses the Financial Collateral Comprehensive Method to allow for mitigation effects.

The table below illustrates the effect of all CRM techniques applied in accordance with the Part Three, Title II, Chapter 4 of Regulation (EU) 575/2013 on the standardised approach capital requirements' calculations.

EU CR4 – standardised approach – Credit risk exposure and CRM effects

2023	Exposures before CCF and before CRM		Exposures post CCF and post CRM		RWAs and RWAs density	
Exposure classes	On-Balance Sheet exposures	Off-Balance Sheet exposures	On-Balance Sheet exposures	Off-Balance Sheet exposures	RWAs	RWAs density (%)
Central governments or central banks	165,852	252,838	166,489	3,159	1,662	0.98
Regional government or local authorities	66	27	66		30	45.42
Public sector entities						
Multilateral development banks	4,318	5,733	4,788	38		
International organisations	2,550	9,140	2,550			
Institutions	436	150	3,071	29	687	22.15
Corporates	5,525	5,418	5,257	541	5,407	93.26
Retail	17,404	10,056	14,714	2,438	12,359	72.05
Secured by mortgages on immovable property	16,604	657	16,604	278	6,391	37.86
Exposures in default	846	112	574	29	717	119.00
Exposures associated with particularly high risk	204	35	202	18	325	147.04
Covered bonds						
Institutions and corporates with a short-term credit assessment						
Collective investment undertakings						
Equity						
Other items						
TOTAL	**213,807**	**284,167**	**214,317**	**6,530**	**27,579**	**12**

EU CR4 – standardised approach – Credit risk exposure and CRM effects

2022	Exposures before CCF and before CRM		Exposures post CCF and post CRM		RWAs and RWAs density	
Exposure classes	On-Balance Sheet exposures	Off-Balance Sheet exposures	On-Balance Sheet exposures	Off-Balance Sheet exposures	RWAs	RWAs density (%)
Central governments or central banks	156,122	294,252	156,449	2,750	1,588	1.00
Regional government or local authorities	36	38	37		31	85.69
Public sector entities						
Multilateral development banks	3,163	7,110	3,378	4		
International organisations	2,159	9,519	2,159			
Institutions	236	185	3,020	20	675	22.20
Corporates	5,573	4,552	5,603	455	5,542	91.48
Retail	12,688	3,929	10,067	1,620	8,321	71.20
Secured by mortgages on immovable property	19,994	1,662	19,892	594	9,545	46.59
Exposures in default	624	96	465	19	598	123.27
Exposures associated with particularly high risk	230	54	209	23	337	145.21
Covered bonds						
Institutions and corporates with a short-term credit assessment						
Collective investment undertakings						
Equity						
Other items						
TOTAL	**200,825**	**321,396**	**201,279**	**5,486**	**26,636**	**12.88**

The total SA exposure decreased to EUR 498 billion in 2023 and was mainly witnessed in Off-Balance sheet exposure for Central government or central banks with a zero or low risk weight. The overall RWA increased to EUR 27.6 billion. The increase was mainly witnessed in Retail, EUR 4 billion due to an increase of the On-balance exposure.

Risk weights per exposure class

The table below presents the breakdown, post conversion factor and post risk mitigation techniques, of exposures under the Standardised approach by exposure class and risk weight (corresponding to the riskiness attributed to the exposure according to SA approach). The risk weights presented encompass all those assigned to each credit quality step in Article 113 to Article 134 in Part Three, Title II, Chapter 2 of Regulation (EU) 575/2013.

EU CR5:Standardised approach Post-CCF and Post-CRM Techniques

2023	Risk weight															Total	Of which unrated
Exposure classes	0 %	2 %	4 %	10 %	20 %	35 %	50 %	70 %	75 %	100 %	150 %	250 %	370 %	1250 %	Others		
Central governments or central banks	166,307		822	338	755		312			764	350					**169,648**	
Regional government or local authorities					45					21						**66**	
Public sector entities																	
Multilateral development banks	4,826															**4,826**	
International organisations	2,550															**2,550**	
Institutions					2,940		122			38						**3,101**	
Corporates					92		6			5,626	74					**5,798**	
Retail exposures						215			16,937							**17,152**	
Exposures secured by mortgages on immovable property						13,256	3,531			95						**16,883**	
Exposures in default										374	229					**603**	
Exposures associated with particularly high risk											221					**221**	
Covered bonds																	
Exposures to institutions and corporates with a short-term credit assessment																	
Units or shares in collective investment undertakings																	
Equity exposures																	
Other items																	
TOTAL	**173,683**		**822**	**338**	**3,833**	**13,472**	**3,971**		**16,937**	**6,917**	**874**					**220,847**	

EU CR5:Standardised approach Post-CCF and Post-CRM Techniques

2022	Risk weight														Total	Of which unrated
Exposure classes	0 %	2 %	4 %	10 %	20 %	35 %	50 %	70 %	75 %	100 %	150 %	250 %	370 %	1250 %	Others		
Central governments or central banks	157,495						287			1,363	54					**159,199**	
Regional government or local authorities					2		7			27						**37**	
Public sector entities																	
Multilateral development banks	3,382															**3,382**	
International organisations	2,159															**2,159**	
Institutions		1			2,896		98			47						**3,041**	
Corporates					270		127			5,661						**6,058**	
Retail exposures						196			11,491							**11,687**	
Exposures secured by mortgages on immovable property						13,483	3,922			3,081						**20,486**	
Exposures in default										259	226					**485**	
Exposures associated with particularly high risk											232					**232**	
Covered bonds																	
Exposures to institutions and corporates with a short-term credit assessment																	
Units or shares in collective investment undertakings																	
Equity exposures																	
Other items																	
TOTAL	**163,037**	**1**			**3,167**	**13,679**	**4,441**		**11,491**	**10,438**	**512**					**206,766**	

Also here, the main exposure of the SA portfolio is in Central governments or central banks with a low risk weight.

Counterparty Credit Risk

The main activities that qualify under counterparty credit risk are derivatives trading activities and securities financing. To mitigate the credit risk of these transactions, ING enters into master agreements such as ISDA master agreements and Global Master Repurchase Agreements (GMRAs) that ensures netting of the outstanding positions. To further eliminate the risk on the netted positions, both ING Bank and its counterparties may agree to pledge additional collateral to each other. Additionally, ING started to exchange initial margin amounts with its trading partners in 2017. The actual amount that ING may be required to pledge varies based on ING's portfolio composition of both derivatives and securities pledged in securities financing transactions, market circumstances, the number of downgrade notches as well as the terms and conditions of future CSAs or other similar agreements.

CCR risk approach

Analysis of the counterparty credit risk exposure by approach

The main purpose of the derivatives portfolio of ING is to facilitate the hedging of the lending portfolio as well as hedging for clients. The portfolio consists mainly plain vanilla interest rate and foreign exchange derivatives. It must also be noted that - in line with regulatory requirement - ING novated the bulk of its new trades via qualifying central counterparties (CCPs), which compresses the exposure via the use of the large netting pool of a CCP.

In the tables below, ING's counterparty credit risk portfolio is presented. The tables are reported following the implementation of the updated reporting requirements under CRR2, as a result comparative numbers are not available for all the templates. Under Pillar 1 ING uses the Standardized Approach for Counterparty Credit Risk (SA-CCR) (in line with CRR art. 274). In June 2021 ING went live with the SA-CCR, which replaced the current exposure method (CEM)/ mark-to-market method. There are no exposures under the advanced, Internal Model Method (IMM) under Pillar1. Under Pillar 2 however, for FX and interest rate derivatives, ING uses a risk sensitive approach based on Monte Carlo simulations.

For the calculation of the collateral and securities financing transactions (SFT) exposures, ING uses the financial collateral comprehensive method. There is no contractual cross product netting applied.

Under Pillar 1, according to the SA-CCR, the regulatory exposure at default (READ) measure consists of the replacement cost and potential future exposure components. The exposure at default is calculated on a daily basis to take into account the changes in the MTM value due to market movements and changes in the portfolio composition. This calculation is done on:

- Gross basis (ignoring any collateral received and ignoring any netting between trades).
- Net basis (ignoring any collateral received, but applying netting between trades with a positive and negative MTM in case there is a legally enforceable netting agreement in place).
- Net basis after collateral (subtracting any post haircut value of collateral received, and applying netting between trades with a positive and negative MTM in case there is a legally enforceable netting agreement in place).

READ also takes into account the credit valuation adjustment (CVA) recognised as an incurred write-down in line with art. 273(6) CRR.

Standardised approach – CCR exposures by regulatory portfolio and risk

The following table presents the CCR exposures that are calculated according the Standardised approach (SA), which is only an insignificant part of ING's portfolio.

EU CCR3: Standardised approach CCR exposures by regulatory portfolio and risk

2023

		Risk Weight											
	Exposure Class	0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	**Total**
1	Central governments or central banks	1,807			59	142	14			25			**2,047**
2	Regional government or local authorities												
3	Public sector entities												
4	Multilateral development banks	6,566											**6,566**
5	International organisations	55											**55**
6	Institutions						9						**9**
7	Corporates						3			65	55		**123**
8	Retail												
9	Institutions and corporates with a short-term credit assessment												
10	Other items												
11	**Total exposure value**	**8,428**			**59**	**142**	**25**			**90**	**55**		**8,801**

EU CCR3: Standardised approach CCR exposures by regulatory portfolio and risk

2022

		Risk Weight											
	Exposure Class	0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	**Total**
1	Central governments or central banks	15,654					3			126			**15,783**
2	Regional government or local authorities												
3	Public sector entities												
4	Multilateral development banks	7,771											**7,771**
5	International organisations	13											**13**
6	Institutions		17				17			3			**37**
7	Corporates									57	6		**64**
8	Retail												
9	Institutions and corporates with a short-term credit assessment												
10	Other items												
11	**Total exposure value**	**23,438**	**17**				**20**			**186**	**6**		**23,667**

The 100% risk weight exposures to central governments or central banks contain mainly FX swaps with central monetary institutions.

IRB – CCR exposures by portfolio and PD scale

The following table shows all relevant parameters used for the calculation of CCR capital requirements for IRB models.

EU CCR4 – IRB approach – CCR exposures by exposure class and PD scale

2023 PD Scale	Exposure value	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	RWEA	Density of risk weighted exposure amounts
Corporates - Other							
0.00 to <0.15	8,941	0.10	541	32.16	1	1,483	0.17
0.15 to <0.25	2,009	0.20	561	45.36	2	793	0.39
0.25 to <0.50	2,665	0.37	957	39.70	1	1,337	0.50
0.50 to <0.75	1	0.58	8	48.92	3	1	0.81
0.75 to <2.50	1,513	1.04	695	38.77	2	1,232	0.81
2.50 to <10.00	132	3.60	322	44.34	1	172	1.30
10.00 to <100.00	50	26.49	121	65.67	1	187	3.77
100.00 (Default)	1	100.00	16	56.26	1	10	7.31
sub-total	**15,313**	**0.37**	**3,221**	**36.07**	**1**	**5,214**	**0.34**
Corporates - SME							
0.00 to <0.15	6	0.11	324	73.53	1	1	0.25
0.15 to <0.25	171	0.21	508	47.13	1	62	0.36
0.25 to <0.50	15	0.40	568	52.91	2	10	0.65
0.50 to <0.75	21	0.65	386	49.00	2	15	0.70
0.75 to <2.50	43	1.62	894	53.10	2	43	1.00
2.50 to <10.00	17	4.62	363	47.76	2	23	1.37
10.00 to <100.00	9	16.75	239	41.47	3	17	1.88
100.00 (Default)	2	100.00	73	36.82	2	3	1.05
Sub-total	**284**	**2.10**	**3,355**	**48.79**	**2**	**173**	**0.61**
Corporates - Specialised lending							
0.00 to <0.15	659	0.12	151	44.63	4	359	0.54
0.15 to <0.25	438	0.21	300	43.29	4	285	0.65
0.25 to <0.50	1,112	0.35	566	39.24	3	922	0.83
0.50 to <0.75		0.70	4	22.70	4		0.36
0.75 to <2.50	458	0.85	315	27.74	2	281	0.61
2.50 to <10.00	21	4.56	23	47.60	5	55	2.58
10.00 to <100.00	4	19.30	33	41.88	3	10	2.85
100.00 (Default)	9	100.00	14	32.74	4	56	6.40
Total	**2,700**	**0.74**	**1,406**	**39.31**	**3**	**1,967**	**0.73**
Institutions							
0.00 to <0.15	12,538	0.08	1,000	37.12	1	2,419	0.19
0.15 to <0.25	670	0.21	160	37.62	1	208	0.31
0.25 to <0.50	445	0.36	326	41.15	1	218	0.49
0.50 to <0.75		0.70	8	22.70	5		0.59
0.75 to <2.50	210	1.17	461	48.00	1	214	1.02
2.50 to <10.00	17	4.86	142	40.80		22	1.27
10.00 to <100.00	3	16.32	70	39.47		7	2.17
100.00 (Default)	—	100.00	1	38.13	1		4.77
Total	**13,884**	**0.12**	**2,168**	**37.44**	**1**	**3,088**	**0.22**
Retail - Other							
0.00 to <0.15	4	0.06	106	140.58		1	0.25
0.15 to <0.25		0.23	35	140.58			0.66
0.25 to <0.50		0.35	16	140.58			0.86
0.50 to <0.75	1	0.52	3	140.58		2	1.10
0.75 to <2.50	2	2.48	55	140.58		4	2.01
2.50 to <10.00		4.28	14	140.58			2.17
10.00 to <100.00		16.32	78	100.00			2.17
100.00 (Default)		100.00	1	162.34		1	6.52
Sub-total	**8**	**3.69**	**308**	**140.53**		**9**	**1.11**
Retail - SME							
0.00 to <0.15	2	0.09	103	139.02		1	0.34
0.15 to <0.25	3	0.21	112	129.12		2	0.60
0.25 to <0.50	2	0.43	185	62.22		2	0.82
0.50 to <0.75		0.70	40	59.26			0.58
0.75 to <2.50		1.21	173	64.63			0.69
2.50 to <10.00		4.43	98	103.52			1.33
10.00 to <100.00		16.32	108	115.04			2.44
100.00 (Default)			33				
Sub-total	**8**	**0.61**	**852**	**105.42**		**5**	**0.64**
Total	**32,197**	**0.31**	**11,311**	**37.09**	**2**	**10,456**	**0.32**

All figures are in EUR millions, except for the number of obligors.

RWA density is the average risk weight.

Collateral held on exposure values

Collateral

The composition of collated ING posted/received used in CCR exposures and related to SFT transactions can be observed in the following table.

EU CCR5 – Composition of collateral for CCR exposures

2023	Collateral used in derivative transactions				Collateral used in SFTs			
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received		Fair value of posted collateral	
Collateral type	Segregated	Un-Segregated	Segregated	Un-Segregated	Segregated	Un-Segregated	Segregated	Un-Segregated
Cash – domestic currency	2,708	1,836	943	2,926		111		1,638
Cash – other currencies	996	1,113	3,945	1,449		203		1,418
Domestic sovereign debt	742	171	4,121	31		36,842	296	36,338
Other sovereign debt	1,664	487	1,851	55		43,150	211	41,844
Government agency debt						430		404
Corporate bonds	197	536	195			10,199		12,589
Equity securities						29,055		28,764
Other collateral	371	1				52,433		78,966
Total	**6,679**	**4,144**	**11,055**	**4,461**		**172,423**	**507**	**201,962**

Excluding exposure class securitization

EU CCR5 – Composition of collateral for CCR exposures

2022	Collateral used in derivative transactions				Collateral used in SFTs			
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received		Fair value of posted collateral	
Collateral type	Segregated	Un-Segregated	Segregated	Un-Segregated	Segregated	Un-Segregated	Segregated	Un-Segregated
Cash – domestic currency	4,559	2,934	658	3,879	17	257		837
Cash – other currencies	1,442	1,392	5,152	1,548		623		927
Domestic sovereign debt	500	90	3,898	67		25,206	105	31,744
Other sovereign debt	1,281	926	1,147	82		44,356	86	34,059
Government agency debt						469		462
Corporate bonds	146	493	395			8,517	84	23,194
Equity securities						21,320		24,395
Other collateral	36	86				46,450		65,976
Total	**7,963**	**5,920**	**11,249**	**5,577**	**17**	**147,199**	**275**	**181,595**

Excluding exposure class securitization

The bulk of collateral posted/received is in cash and government bonds for OTC derivatives. For SFT's the majority of collateral received is sovereign debt, while the collateral posted is predominately sovereign debt, corporate bonds and other collateral.

Central Counterparties

In line with EMIR regulation - for standard products - the use of Central Clearing Parties (CCPs) is mandatory and thus a large part of the portfolio has been shifted from bilateral trades to CCPs in recent years

The table below presents the exposures to central counterparties, broken down by qualified (QCCP) and non-qualified CCPs:

EU CCR8 – Exposures to CCPs

	2023		2022	
	Exposure value	RWEA	Exposure value	RWEA
Exposures to QCCPs (total)		378		333
Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	2,877	61	2,712	54
(i) OTC derivatives	2,355	51	1,946	39
(ii) Exchange-traded derivatives	168	3	123	2
(iii) SFTs	354	7	644	13
(iv) Netting sets where cross-product netting has been approved				
Segregated initial margin				
Non-segregated initial margin				
Prefunded default fund contributions	687	317	400	279
Unfunded default fund contributions				
Exposures to non-QCCPs (total)		**291**		**535**
Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	118	278	176	523
(i) OTC derivatives				
(ii) Exchange-traded derivatives				
(iii) SFTs	118	278	176	522
(iv) Netting sets where cross-product netting has been approved				
Segregated initial margin				
Non-segregated initial margin				
Prefunded default fund contributions	1	7	1	6
Unfunded default fund contributions	1	6	1	6

1 By definition segregated initial margin does not contribute to exposure
2 The status “qualified” is based on the European Securities and Markets Authority (ESMA) qualification.

Note: ING reports CCPs as “qualified” CCPs (QCCPs) if they have files for the European Securities and Markets Authority (ESMA) approval, that enables credit institutions to calculate capital in a preferential way.

CVA risk

The CRR/CRD IV introduced a regulatory capital charge for material increases in the Credit Valuation Adjustment (CVA), the market price of the counterparty credit risk of derivatives. In particular, as credit spreads of ING’s counterparties increase, CVA will increase as well and ING will incur a loss.

ING follows the standardised approach for calculating the own fund requirement for CVA Risk. The scope of products and counterparties follows the European regulations (CRR and EMIR).

EU CCR2 – Transactions subject to own funds requirements for CVA risk

		2023		2022	
		Exposure value	RWAs	Exposure value	RWAs
1	Total transactions subject to the Advanced method				
2	(i) VaR component (including the 3× multiplier)				
3	(ii) stressed VaR component (including the 3× multiplier)				
4	Transactions subject to the Standardised method	6,197	1,150	6,526	863
EU-4	Transactions subject to the Alternative approach (Based on the Original Exposure Method)				
5	**Total transactions subject to own funds requirements for CVA risk**	**6,197**	**1,150**	6,526	864

Credit default swaps

ING participates in the credit risk derivative trading market, as a net purchaser of credit risk protection from other counterparties.

EU CCR6: Credit derivatives exposures

	2023		2022	
	Protection bought	Protection sold	Protection bought	Protection sold
Notionals				
Single-name credit default swaps	10,775	8,154	10,574	8,154
Index credit default swaps	3,008	1,806	3,320	3,259
Total return swaps	3,628		4,268	
Credit options				
Other credit derivatives				
Total notionals	**17,410**	**9,959**	**18,162**	**11,412**
Fair values				
Positive fair value (asset)	12	160	146	72
Negative fair value (liability)	-586	-10	-244	-7

For ING's credit derivative positions as of 31 December 2023, the largest notional is under single-name credit default swap (CDS).

EU CCR1 – Analysis of CCR exposure by approach

2023		Replacement cost (RC)	Potential future exposure (PFE)	EEPE	Alpha used for computing regulatory exposure value	Exposure value pre-CRM	Exposure value post-CRM	Exposure value	RWEA
EU-1	EU - Original Exposure Method (for derivatives)				1.4				
EU-2	EU - Simplified SA-CCR (for derivatives)				1.4				
1	SA-CCR (for derivatives)	8,314	11,961		1.4	36,606	28,172	28,041	8,565
2	IMM (for derivatives and SFTs)								
2a	Of which securities financing transactions netting sets								
2b	Of which derivatives and long settlement transactions netting sets								
2c	Of which from contractual cross-product netting sets								
3	Financial collateral simple method (for SFTs)								
4	Financial collateral comprehensive method (for SFTs)					24,166	12,906	12,906	2,037
5	VaR for SFTs								
6	**Total**					**60,772**	**41,079**	**40,947**	**10,602**

EU CCR1 – Analysis of CCR exposure by approach

2022		Replacement cost (RC)	Potential future exposure (PFE)	EEPE	Alpha used for computing regulatory exposure value	Exposure value pre-CRM	Exposure value post-CRM	Exposure value	RWEA
EU-1	EU - Original Exposure Method (for derivatives)				1.4				
EU-2	EU - Simplified SA-CCR (for derivatives)				1.4				
1	SA-CCR (for derivatives)	9,619	10,823		1.4	37,422	28,440	28,249	7,786
2	IMM (for derivatives and SFTs)								
2a	*Of which securities financing transactions netting sets*								
2b	*Of which derivatives and long settlement transactions netting sets*								
2c	*Of which from contractual cross-product netting sets*								
3	Financial collateral simple method (for SFTs)								
4	Financial collateral comprehensive method (for SFTs)					34,240	25,172	25,172	1,797
5	VaR for SFTs								
6	**Total**					**71,662**	**53,612**	**53,420**	**9,583**

Securitisations

The following is prepared taking into account the 'Industry Good Practice Guidelines on Pillar 3 disclosure requirements for securitisations' issued by the European Banking Federation and other industry associations on 31 January 2010 and the CRR/CRD IV disclosure requirements. It includes qualitative and quantitative disclosures addressing both the exposure securitised as well as securitisations positions held. While quantitative disclosures are limited to those securitisations that are used for the purpose of calculating the regulatory capital requirements under the CRR/CRD IV, qualitative information have a broader scope and give a view on ING's entire securitisation activity.

Depending on ING's role as investor, originator, or sponsor, the objectives, the involvement and the rules applied may be different. ING is primarily engaged in securitisation transactions in the role of investor (in securitisations arranged by others). ING is also an originator or sponsor of securitisations and the latter through its support of the ABCP conduit MontBlanc. ING does not re-securitise its securitisations exposure and even though ING hedges its securitisation positions, such instruments are not recognised as credit risk mitigation for regulatory capital purposes. ING does not engage in securitisation of any impaired assets from its own balance. Furthermore, ING does not have any securitisation position in its trading book.

Exposures associated with Securitisations (Asset Backed Financing, Commercial / Residential Mortgage Backed Securities) are shown separately because of their specific treatment. These amounts also relate to the amount invested prior to any impairment or mark-to-market adjustments. These amounts are also considered to be 'Credit Risk outstanding'.

Valuation and accounting policies

ING's activities regarding securitisations are described in Note 49 'Structured entities' in the annual accounts. The applicable accounting policies are included in Note 1 'Basis of preparation and accounting policies' in the ING Financial Statements. The most relevant accounting policies for ING's own originated securitisation programmes are 'Derecognition of financial assets' and 'Consolidation'. Where ING acts as investor in securitisation positions, the most relevant accounting policy is 'Classification and measurement of financial instruments'.

Regulatory capital methodology

ING has implemented SEC-IRB, SEC-SA, SEC-ERBA and SEC-IAA in line with of Regulation 2017/2401. This regulation became effective for securitisations originated as of 1 January 2019 and as of 1 January 2020 for all securitisation positions.

For securitisations originated before 1 January 2019, ING continued to use the AIRB approach for credit risk. For these positions ING uses the Rating Based Approach (RBA) for investments in tranches of asset-backed securities (ABS) and mortgage-backed securities (MBS) which have been rated by external rating agencies. Rating agencies which are used by ING under the RBA include Standard & Poor's, Fitch and Moody's.

Under the RBA, RWA are determined by multiplying the amount of the exposure by the appropriate regulatory risk weights, which depend on: the external rating or an available inferred rating, the seniority of the position and the granularity of the position.

ING uses the Internal Assessment Approach (IAA) for the liquidity support facilities it provides to Asset Backed Commercial Paper (ABCP) conduit Mont Blanc Capital Corp., based on externally published rating agency methodologies. Under the IAA approach, the unrated position is assigned by the institution to an internal rating grade. The individual liquidity facilities are then attributed a derived rating by mapping the internal rating grade to an externally published credit assessment corresponding to that rating grade.

For securitisations originated after 1 January 2019, ING applies the hierarchy of methods as introduced in Regulation 2017/2401. Following the prescribed hierarchy securitisation positions are reported under SEC-IRBA, SEC-SA, SEC-ERBA or SEC-IAA. As of 1-1-2020 all securitisation positions will be reported under the SEC-IRBA, SEC-SA, SEC-ERBA or SEC-IAA approach based on the regulatory hierarchy of methods.

Under all approaches in the hierarchy, the risk weight for STS-compliant securitizations is subject to a floor of 10% for senior tranches and 15% for non-senior tranches.

Investor securitisations

ING's goal is to maintain a portfolio of high quality liquid assets that meets the regulatory requirements of CRR/CRD IV and the Delegated Act of October 2014 regarding liquidity. ING invests in high quality Asset Backed Securities (ABS) keeping close track of the securitisation investment positions via monthly monitoring reports and weekly update calls. Additionally, ING invests in securitisation positions in order to facilitate client business from Wholesale Banking Securitisation department.

Sponsor securitisations

In the normal course of business, ING structures financing transactions for its clients by assisting them in obtaining sources of liquidity by selling the clients' receivables or other financial assets to a Special Purpose Vehicle (SSPE). The senior positions in these transactions are funded by the ING administered multi seller Asset Backed Commercial Paper (ABCP) conduit Mont Blanc Capital Corp. (rated A-1/P-1). Mont Blanc Capital Corp. funds itself externally in the ABCP markets.

In its role as administrative agent, ING facilitates these transactions by acting as administrative agent, swap counterparty and liquidity provider to Mont Blanc. ING also provides support facilities (liquidity) backing the transactions funded by the conduit. The types of asset currently in the Mont Blanc conduit include trade receivables, consumer finance receivables and car leases.

ING supports the commercial paper programmes by providing Mont Blanc Capital Corp. with short-term liquidity facilities. Once drawn these facilities bear normal credit risk.

The standby liquidity facilities are reported under irrevocable facilities. All facilities, which vary in risk profile, are granted to the SSPE subject to normal ING credit and liquidity risk analysis procedures. The fees received for services provided and for facilities are charged subject to market conditions. Mont Blanc is consolidated by ING. These transactions are therefore on-balance sheet arrangements.

In line with the Internal Assessment Approach, which has been approved for use by ECB for ING in relation to the ING sponsored ABCP conduit, Mont Blanc Capital Corp, the credit quality of the positions are internally assessed by following publicly available assessment methodology of external rating agencies. This includes differing stress factors for different asset classes as outlined by rating agencies as well as assessing the entire structure of the transaction including additional quantitative and qualitative features. This will result in the calculation of a certain credit enhancement. Other protections in a transaction (eligibility criteria, early amortization triggers, commingling protections etc.) are factored in and that then results in an internal rating. This rating is then directly mapped to an external rating, which is used to determine the RWA for the liquidity facilities provided by ING to support the transactions and is outlined in a defined approach. Any changes to rating agency methodology is tracked annually with a procedure in place with the credit risk measurement department verifying that any changes are captured in an update to the approach.

The credit approval process for individual transactions follows ING's standard credit approval procedures. At inception, initial data is required to be received outlining the historical performance of the assets. Due diligence is carried out on the underlying asset pool. Following ING policy, each transaction is reviewed (including reassessing the internal assessment approach analysis for that transaction) on a regular basis.

The performance of each transaction is closely monitored on an ongoing basis through a.o. detailed transaction reports.

Originator securitisations

ING originates own securitisation transactions for economic and regulatory capital purposes, as well as liquidity and funding purposes.

The senior tranches in securitisations are used to obtain funding and/or provide contingent liquidity. To be eligible as collateral for central banks securitised exposures must be sold to a Securitisation Special Purpose Entity (SSPE) which, in turn, issues securitisation notes ('traditional securitisations') in two tranches, one subordinated tranche and one senior tranche, rated AAA by a rating agency. The AAA tranche can then be used by ING as (stand-by) collateral in the money market for secured borrowings. The assets awaiting securitisations are originated from a banking book and are valued in line with the respective accounting framework. In principle, loans that are securitised are valued at cost.

As long as the securitisation exposures created are not transferred to third parties, the regulatory capital remains unchanged. These are not detailed hereunder. Apart from the structuring and administration costs of these securitisations, these securitisations are profit / loss neutral.

Securitisation Exposure

In the table below, the securitisations are given, broken down by underlying exposure. The total position of our securitisations in 2023 increased to EUR 17.2 biillion (2022: EUR 13.9 billion). The underlying exposures are residential mortgages and Lease and receivables.

EU-SEC1: Securitisation exposures in the non-trading book

2023	Institution acts as originator							Institution acts as sponsor				Institution acts as investor			
	Traditional				Synthetic			Traditional				Traditional			
	STS		Non-STS			of which SRT	Sub-total	STS	Non-STS	Synthetic	Sub-total	STS	Non-STS	Synthetic	Sub-total
		of which SRT		of which SRT											
Total exposures					**4,845**	**4,845**	**4,845**	**2,396**	**5,510**		**7,906**	**3,626**	**756**		**4,382**
Retail (total)					2,010	2,010	2,010	1,089	3,439		4,529	1,830	210		2,040
residential mortgage					2,010	2,010	2,010	4	707		711	629	128		758
credit card								200	1,472		1,672				
other retail exposures								885	1,260		2,146	1,200	82		1,282
re-securitisation															
Wholesale (total)					2,835	2,835	2,835	1,307	2,071		3,377	1,797	546		2,343
loans to corporates															
commercial mortgage									221		221				
lease and receivables					2,835	2,835	2,835	1,307	1,850		3,156	1,797	532		2,329
other wholesale													14		14
re-securitisation															

EU-SEC1: Securitisation exposures in the non-trading book

2022	Institution acts as originator							Institution acts as sponsor				Institution acts as investor			
	Traditional				Synthetic			Traditional				Traditional			
	STS		Non-STS			of which SRT	Sub-total	STS	Non-STS	Synthetic	Sub-total	STS	Non-STS	Synthetic	Sub-total
		of which SRT		of which SRT											
Total exposures					**2,649**	**2,649**	**2,649**	**1,737**	**4,775**		**6,512**	**2,855**	**2,998**		**5,853**
Retail (total)					2,141	2,141	2,141	564	2,687		3,252	1,183	208		1,392
residential mortgage					2,141	2,141	2,141	6	480		486	401	162		563
credit card								158	1,084		1,243				
other retail exposures								400	1,123		1,524	782	46		829
re-securitisation															
Wholesale (total)					508	508	508	1,173	2,087		3,260	1,671	2,790		4,461
loans to corporates															
commercial mortgage									210		210				
lease and receivables					508	508	508	1,173	1,877		3,050	1,671	2,766		4,437
other wholesale													24		24
re-securitisation															

As we do not have securitization exposures in the trading book, this template is not included in the Pillar 3 report.

The following tables provides the breakdown of current exposures by risk weight bands and by regulatory approach.

EU-SEC3: Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor

2023	Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)				RWEA (by regulatory approach)				Capital charge after cap			
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-IRBA	SEC-ERBA (including IAA)	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions
Total exposures	**9,974**	**469**		**7**		**2,010**	**68**	**8,373**		**286**	**8**	**1,314**		**23**	**1**	**105**	
Traditional transactions	5,137	469					68	5,538			8	871			1	70	
Securitisation	5,137	469					68	5,538			8	871			1	70	
Retail	3,994	350					9	4,335			1	708				57	
Of which STS	1,089							1,089				115				9	
Wholesale	1,143	119					59	1,203			6	163			1	13	
Of which STS	683						52	631			5	65				5	
Re-securitisation																	
Synthetic transactions	4,837			7		2,010		2,835		286		444		23		35	
Securitisation	4,837			7		2,010		2,835		286		444		23		35	
Retail underlying	2,010					2,010				286				23			
Wholesale	2,827			7				2,835				444				35	
Re-securitisation																	

EU-SEC3: Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor

2022	Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)				RWEA (by regulatory approach)				Capital charge after cap			
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-IRBA	SEC-ERBA (including IAA)	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions
Total exposures	**6,296**	**366**		**7**	**1**	**2,141**	**23**	**4,504**	**1**	**347**	**2**	**752**	**8**	**28**		**60**	**1**
Traditional transactions	3,653	366			1		23	3,996	1		2	641	8			51	1
Securitisation	3,653	366			1		23	3,996	1		2	641	8			51	1
Retail	2,622	266			1			2,888	1			490	8			39	1
Of which STS	564							564				56				5	
Wholesale	1,031	100					23	1,108			2	151				12	
Of which STS	585						20	565			2	58				5	
Re-securitisation																	
Synthetic transactions	2,643			7		2,141		508		347		111		28		9	
Securitisation	2,643			7		2,141		508		347		111		28		9	
Retail underlying	2,141					2,141				347				28			
Wholesale	501			7				508				111				9	
Re-securitisation																	

EU-SEC4: Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor

2023	Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)				RWEA (by regulatory approach)				Capital charge after cap			
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions
Total exposures	**4,034**	**347**	**1**				**3,295**	**1,087**			**345**	**213**			**28**	**17**	
Traditional securitisation	4,034	347	1				3,295	1,087			345	213			28	17	
Securitisation	4,034	347	1				3,295	1,087			345	213			28	17	
Retail underlying	2,025	14					1,802	237			194	34			16	3	
Of which STS	1,816	14					1,802	28			192	3			15		
Wholesale	2,009	333	1				1,493	850			151	179			12	14	
Of which STS	1,797						1,492	305			151	35			12	3	
Re-securitisation																	
Synthetic securitisation																	
Securitisation																	
Retail underlying																	
Wholesale																	
Re-securitisation																	

EU-SEC4: Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor

2022	Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)				RWEA (by regulatory approach)				Capital charge after cap			
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	1250%/ deductions
Total exposures	**5,565**	**218**	**1**	**69**			**2,566**	**3,287**			**263**	**667**			**21**	**53**	
Traditional securitisation	5,565	218	1	69			2,566	3,287			263	667			21	53	
Securitisation	5,565	218	1	69			2,566	3,287			263	667			21	53	
Retail underlying	1,376	15					1,185	207			125	31			10	2	
Of which STS	1,168	15					1,183				123				10		
Wholesale	4,188	203	1	69			1,381	3,080			138	636			11	51	
Of which STS	1,671						1,381	290			138	34			11	3	
Re-securitisation																	
Synthetic securitisation																	
Securitisation																	
Retail underlying																	
Wholesale																	
Re-securitisation																	

The table below provides the exposures in default for securitisations where ING acts as originator or as sponsor.

EU-SEC5: Exposures securitised by the institution - Exposures in default and specific credit risk adjustments

2023	Exposures securitised by the institution - Institution acts as originator or as sponsor		
	Total outstanding nominal amount		Total amount of specific credit risk adjustments made during the period
		Of which exposures in default	
Total exposures	**56,184**	**549**	
Retail (total)	19,682	132	
residential mortgage	7,168	106	
credit card	7,146		
other retail exposures	5,368	26	
re-securitisation			
Wholesale (total)	36,502	417	
loans to corporates	675		
commercial mortgage	216		
lease and receivables	35,611	417	
other wholesale			
re-securitisation			

EU-SEC5: Exposures securitised by the institution - Exposures in default and specific credit risk adjustments

2022	Exposures securitised by the institution - Institution acts as originator or as sponsor		
	Total outstanding nominal amount		Total amount of specific credit risk adjustments made during the period
		Of which exposures in default	
Total exposures	**45,575**	**565**	
Retail (total)	12,259	108	
residential mortgage	7,804	108	
credit card	4,454		
other retail exposures			
re-securitisation			
Wholesale (total)	33,317	457	
loans to corporates	200		
commercial mortgage	117		
lease and receivables	33,000	457	
other wholesale			
re-securitisation			

Market Risk

Prudent Valuation Adjustments

The fair valued instruments of ING portfolio are subject to valuation adjustments, supported by a bank-wide valuation policy framework meeting IFRS and CRR requirements. Based on IFRS rules, the fair value adjustments booked through P&L or OCI reflect the fair exit price. Additionally, based on CRR Article 105 and Article 34, the Additional Valuation Adjustment (AVA) that captures the 90% confidence prudency in the fair value are deducted from the Common Equity Tier 1 capital.

EU PV1: Prudent valuation adjustments (PVA)

amounts in EUR thousands										2023			2022
	Risk Category					Category level AVA - Valuation uncertainty							
	Equity	Interest Rates	Foreign exchange	Credit	Commodities	Unearned credit spreads AVA	Investment and funding costs AVA	Total category level post-diversification	Of which: Total core approach in the trading book	Of which: Total core approach in the banking book	Total category level post-diversification	Of which: in the trading book	Of which: in the banking book
Market price uncertainty		17,808	894	126,811		7,376	314	109,634	31,262	78,372	119,020	39,797	79,222
Close-out cost	9,745	9,188	413	8,483	4,652	4,688	197	31,206	27,270	3,936	43,601	30,954	12,647
Concentrated positions	10,394	6,490		16,130				33,014	848	32,165	34,686	1,076	33,610
Early termination													
Model risk	6,545	22,381	5	19,025	1,701	24,594	27,977	102,227	80,993	21,234	109,076	83,006	26,070
Operational risk													
Future administrative costs													
Total Additional Valuation Adjustments (AVAs)								**594,036**	**140,373**	**453,663**	**609,499**	**154,834**	**454,664**

The difference between the total AVA and the sum of the underlying components (internal models) is the fall-back approach.

As of 31 December 2022, the total Additional Valuation Adjustments (AVAs) is EUR 609.5 million (before tax). This total amount contains EUR 303.1 million of AVA for the fall-back approach. The move/increase is mainly driven by the higher model risk, increase in market price uncertainty and close-out cost mainly driven by the positions, MTM and spread movements and the fall-back AVA mainly driven by positions and MTM movements. On a quarterly basis the fair value adjustments and prudent valuation AVA are discussed and approved in the Global Valuation and Impairment Committee (GV&IC), who oversees the bank-wide valuation framework.

Market RWA under the internal model approach (IMA)

The table below explains the changes in Market RWA under the Internal Model Approach (IMA) during 2023 and provides additional information by linking the impact of changes in portfolio composition, model changes, and shifts in the risk environment on Market RWA.

EU MR2-B: RWA flow statements of market risk exposures under the IMA

								2023		2022
		VaR	SVaR	IRC	Comprehensive risk measure	Other	Total RWEAs	Total own funds requirements	Total RWEAs	Total own funds requirements
1	**RWEAs at previous period end**	**2,732**	**3,427**	**1,934**		**516**	**8,609**	**689**	**9,029**	**722**
1a	Regulatory adjustment	2,123	2,547	981			5,651	452	5,986	479
1b	RWEAs at the previous quarter-end (end of the day)	609	880	953		516	2,958	237	3,043	243
2	Movement in risk levels	-287	63	398			174	14	-568	-45
3	Model updates/changes					294	294	24	483	39
4	Methodology and policy									
5	Acquisitions and disposals									
6	Foreign exchange movements									
7	Other									
8a	RWEAs at the end of the disclosure period (end of the day)	322	943	1,351		810	3,426	274	2,958	237
8b	Regulatory adjustment	2,186	3,442	395			6,023	482	5,651	452
8	**RWEAs at the end of the disclosure period**	**2,508**	**4,385**	**1,746**		**810**	**9,449**	**756**	**8,609**	**689**

1 It is required to fill in Rows 1a/1b and 8a/8b when the RWA/capital requirement for any of the columns (VaR, SVaR, IRC) is the 60-day average (for VaR and SVaR) or the 12-week average measure (for IRC) and not the RWA/capital requirement at the end of the period. According to regulatory guidelines the values in rows 1a/8b are calculated as differences between values in rows 1 and 1b and 8 and 8a, respectively.
2 Movement in risk levels: Changes due to position changes between end-of-day values for two reporting periods in question.

Key changes

The ING Bank Market RWA under Internal Model Approach increased from EUR 8.6 billion in 2022 to EUR 9.5 billion in 2023.

Interest rate risk in the banking book (IRRBB)

EU IRRBB1 - Interest rate risks of non-trading book activities

					2023
		Changes of the economic value of equity		Changes of the net interest income*	
	Supervisory shock scenarios	**Current period**	**Last period**	**Current period**	**Last period**
1	Parallel up	-3,482	-3,600	236	142
2	Parallel down	621	630	-239	-142
3	Steepener	-193	308		
4	Flattener	-919	-1,400		
5	Short rates up	-1,608	-2,106		
6	Short rates down	723	751		

EU IRRBB1 - Interest rate risks of non-trading book activities

					2022
		Changes of the economic value of equity		Changes of the net interest income*	
	Supervisory shock scenarios	**Current period**	**Last period**	**Current period**	**Last period**
1	Parallel up	-3,848	-2,738	142	166
2	Parallel down	764	55	-142	-162
3	Steepener	315	185		
4	Flattener	-1,473	-1,107		
5	Short rates up	-2,251	-1,636		
6	Short rates down	827	614		

* Change of the Net Interest Income (NII) measures the impact of changing interest rates on net interest income (before tax) of the banking book. This excludes credit spread sensitivity and fees. The reported figures reflect the outcome of ramped interest rate shocks (1-in-10 year scenario: ≈ +/- 110bps) based on dynamic balance sheet assumption with a time horizon of one year. This is in line with ING's internal management view, given that the Regulatory Technical Standards on Supervisory Outlier Tests (RTS) has not entered into force yet.

Table EU IRRBBA - Qualitative information on interest rate risks of non-trading book activities			
(a)	A description of how the institution defines IRRBB for purposes of risk control and measurement.	Interest rate risk in the banking book is defined as the exposure of a bank's earnings, capital, and market value to adverse movements in interest rates originated from positions in the banking book. ING uses risk measures based on both an earnings perspective and a value perspective. The following (sub-)risk types are considered for the measurement of the interest rate risk in the banking book: Gap Risk, Customer Behaviour Risk, Tenor Basis Risk, Currency Diversion Risk, Vega Optionality Risk and IFRS P&L Volatility. Next to this, ING measures Credit spread Risk, Equity Investment Risk, FX Risk and Market Risk Economic Capital for the banking book. ING recognises the importance of sound market risk management and bases its market risk management framework on the need to identify, assess, control, and manage market risks. The approach consists of a cycle of five recurring activities: risk identification, risk assessment, risk control, risk monitoring and risk reporting. >> Risk identification is a joint effort of the first and second lines of defence. The goal of risk identification is to detect potential new risks and any changes in known risks. >> Identified risks are assessed and measured by means of various risk metrics to determine the importance of the risk to ING and subsequently to identify the control measures needed. >> Risk control measures used by ING include policies, procedures, minimum standards, limit frameworks, management buffers to cover for uncertainties and stress tests. >> Risk monitoring occurs to check if the implemented risk controls are executed, complied with across the organisation, and are effective. >> Market risk management results and findings are reported to the necessary governing departments and approval bodies.	Article 448.1 (e), first paragraph
(b)	A description of the institution's overall IRRBB management and mitigation strategies.	The IRRBB strategy links the overarching ING business strategy to the acceptable level for IRRBB, expressed in the Risk Appetite Statements. The Risk Appetite Statements are translated into metrics and limits to enable allocation, implementation, and monitoring. The IRRBB risk appetite is set or updated at least annually and must be based on strategic objectives, identified IRRBB risks and regulatory requirements. The limits are defined at the consolidated level and across the different risk categories and cascaded down into the organisation. The Management Board Bank has delegated this task to Asset and Liability Committee Bank (ALCO Bank). ALCO Bank discusses and steers, monthly, the overall risk profile of all ING Bank's balance sheet and capital management risks. This includes the IRRBB metrics (on total as well as per sub-risk type) for Net Interest Income-at-Risk, Net Present Value-at-Risk, Revaluation Reserve-at-Risk, IFRS P&L volatility and Economic Value of Equity as well as the other market risk measures like Credit Spread Risk, Equity Investment Risk, for the banking book. The management of interest rate risk follows the IRRBB framework as approved by ALCO Bank. This framework describes roles, responsibilities, risk metrics, and the policies and procedures related to interest rate risk management. As a result of this framework, ING centralises interest rate risk management from commercial books (that capture the interest rate risks in the products sold to clients) to globally managed interest rate risk books within Group Treasury. The IRRBB framework distinguishes different views for the measurement of IRRBB that are applied: >> Sensitivity view: to measure all risk types, individually. The sensitivity view includes the IRRBB-specific regulatory measures and the risk measures used for internal management. >> Integrated view: all IRRBB risk types must be measured in coherence, from both an earnings perspective and/or value perspective. This includes economic capital, internal stress testing and regulatory stress testing. >> Specific (for example product specific) stress testing. ING implements hedging and risk mitigation strategies that range from the use of traditional market instruments, such as interest rate swaps, to more sophisticated hedging strategies to address a combination of risk factors arising at the portfolio level. Furthermore, ING's model risk and related control structure is based on the three model lines of defence (MLoD) approach. This approach aims to provide a sound governance framework for model risk management by defining and implementing three different management layers with distinct roles and oversight responsibilities. In this structure, models used in the IRRBB domain, globally or locally, are subject to regular validations/audits by Independent Model Validation (2nd MLOD) and Corporate Audit Service (3rd MLOD).	Article 448.1 (f)

(c)	The periodicity of the calculation of the institution's IRRBB measures, and a description of the specific measures that the institution uses to gauge its sensitivity to IRRBB.	IRRBB measures: >> Net Interest Income-at-Risk measures the impact of changing interest rates on net interest income (before tax) of the banking book with a time horizon of one year (expanding to a horizon of three years). This excludes credit spread sensitivity and fees. >> Net Present Value-at-Risk measures the impact of changing interest rates on value. The NPV-at-Risk is defined as the outcome of an instantaneous increase and decrease in interest rates from applying currency-specific scenarios. >> Economic Value of Equity is a regulatory metric that measures changes in the net present value of the interest rate sensitive instruments. >> Customer Behaviour Risk measures the sensitivity of NII and NPV to modelled customer behaviour by shifting the parameters of behavioural models. >> Tenor basis risk measures the sensitivity of NII and NPV to changes in the basis spread between different swap curves where the basis spreads relative to the most liquid swap curve are shifted. >> Vega optionality risk measures the impact of changes in interest rate volatilities on the NPV. >> Currency diversion risk measures the effect on the NII and NPV of a movement of the interest rates of a currency relative to the EUR. >> IFRS P&L Volatility measures the fair value sensitivities of derivatives in the banking book. The measure provides insight in the P&L impact of fair market value changes of these instruments. >> Revaluation Reserve-at-Risk (RR-at-Risk) is defined as a specific subset of the NPV-at-Risk that is based on the accounting treatment Hold-to-Collect & Sell of the banking book positions. >> From an Economic Capital perspective, IRRBB is also measured as it is covered by Market Risk EC. This is measured and reported to ALCO Bank on a monthly basis. IRRBB metrics are calculated managed and reported on a monthly/quarterly basis.	Article 448.1 (e) (i) and (v); Article 448.2
(d)	A description of the interest rate shock and stress scenarios that the institution uses to estimate changes in the economic value and in net interest income (if applicable).	>> In total, 24 scenarios are defined for gap risk. NII-at-Risk scenarios consist of four parallel up/down scenarios (for internal and regulatory management) and six non-parallel scenarios (short rate up, short rate down, long rate up, long rate down, flattening, steepening all for internal management). In addition 2 ‘narrative’ based scenarios (global crisis and geopolitical risk) are calculated for NII-at-Risk. For NPV-at-Risk, six parallel scenarios (two up and down scenarios for internal management and up & down for regulatory management) and six non-parallel scenarios (short rate up, short rate down, long rate up, long rate down, flattening, steepening all for internal management). >> For the regulatory view, 6 scenarios are defined for Economic Value of Equity, two parallel scenarios (up and down), and four non-parallel scenarios (short rate up, short rate down, flattening, steepening). >> For both the earning and value perspective, Customer Behaviour Risk scenarios are defined and applied to mortgage and savings models: this entails stress assumptions on mortgage prepayment rates and to volume and pricing development for savings portfolios. >> Two scenarios (tightening and widening) are defined for Tenor Basis Risk to measure the sensitivity of NII and NPV each. >> For Vega Optionality, one scenario is applied in which a parallel increase of the normal volatility surface is considered to measure the sensitivity of Net Present Value. >> Two scenarios defined for Currency diversion risk are parallel increases and decreases of the swap curves for the specified dimensions.	Article 448.1 (e) (iii); Article 448.2
(e)	A description of the key modelling and parametric assumptions different from those used for disclosure of template EU IRRBB1 (if applicable).	The reported figures for NII are derived from internal measurement system. For this measure, the following key modelling and parametric assumptions are applied based on the management judgement and analysis: >> The NII-at-Risk figures are measured based on the assumption of the balance sheet development in line with the dynamic plan. >> Straight aggregation across currency is applied. >> For NII-at-Risk, it is assumed that the projections of the balance sheet development don’t change under the alternative scenarios. >> Currency specific interest rate gradual movements (1-in-10 year scenario) are applied. >> NII-at-Risk is defined as the outcome of a ramped (i.e. gradual) increase and decrease in interest rates versus a base scenario >> Post-shock interest rate floors have been implemented. >> The base case scenario for yield curve development is based on the assumption of a static yield curve.	Article 448.1 (e) (ii); Article 448.2

(f)	A high-level description of how the bank hedges its IRRBB, as well as the associated accounting treatment (if applicable).	ING uses derivatives for economic hedging purposes to manage its asset and liability portfolios and structural risk positions. The primary objective of ING's hedging activities is to manage the risks which arises from structural imbalances in the duration and other profiles of its assets and liabilities in accordance with its risk appetite. The main risks which are being hedged are interest rate risk and foreign currency exchange rate risk. These risks are primarily hedged with interest rate swaps, cross currency swaps and foreign exchange forwards/swaps. In its interest rate management ING uses [interest rate] swaps. For these swaps different hedge accounting programs are used to align the accounting classification of hedged items with the hedging derivatives. ING uses the following hedge accounting programs in relation to IRRBB: >> Fair Value Hedge Accounting: ING's fair value hedges principally consist of interest rate swaps that are used to protect against changes in the fair value of fixed-rate instruments due to movements in market interest rates. ING applies fair value hedge accounting on micro level in which one hedged item is hedged with one or multiple hedging instruments as well as on macro level whereby a portfolio of items is hedged with multiple hedging instruments. >> Cash Flow Hedge Accounting: ING's cash flow hedges mainly consist of interest rate swaps and cross-currency swaps that are used to protect against the exposure to variability in future cash flows on non-trading assets and liabilities that bear interest at variable rates or are expected to be refunded or reinvested in the future.	Article 448.1 (e) (iv); Article 448.2
(g)	A description of key modelling and parametric assumptions used for the IRRBB measures in template EU IRRBB1 (if applicable).	The key modelling and parametric assumptions used, aim at: >> Reporting Economic Value of Equity in line with the regulatory requirements. Behavioural assumptions for savings (client rate and volume modelling) and Loans/Mortgages which are modelled based on interest rate dependent or constant prepayment modelling. >> Modelling customer behaviour in relation to mortgages, loans, savings, and demand deposits, based on extensive research. Per business unit and product type, exposures are typically segmented into different portfolios based on expected client behaviour. For the segments, model parameters for example for the pass-through rate and customer behaviour are determined based on historical data and expert opinion. >> Applying behavioural modelling to its non-maturity deposits that reflects the product characteristics of the deposits, such as rate-sensitivity, volume stability and depositor type. Additionally, a distinction in modelling approach exists between transactional, rate-insensitive deposits (primarily current accounts), which are modelled using an unconditional cash flow approach and non-transactional, rate-sensitive deposits (primarily savings), where the modelled cash flows are conditional on the interest rate scenario. >> Using behavioural modelling to estimate loan prepayments. The modelling approach is based on the incentive of clients to prepay their loans. A distinction in modelling approach exists between rate-insensitive loans (primarily floating rate loans), which are modelled using an unconditional cash flow approach, and rate-sensitive loans (primarily fixed rate loans), where the modelled cash flows are conditional on the interest rate scenario. Depending on the portfolio, there can be additional prepayment drivers such as seasonal patterns and the age of the loan. >> Both asset- and liability behavioural models are reviewed at least annually.	Article 448.1 (c); Article 448.2
(h)	Explanation of the significance of the IRRBB measures and of their significant variations since previous disclosures	>> ΔEVE in absolute terms has slightly decreased over the reporting period for the BCBS scenarios, due to the increase in duration of the liabilities. It remains well within internal risk appetite and regulatory boundaries. >> Since the last disclosure, NII sensitivity remained stable and limited (less than 2% of the realized interest income over the year in the reported scenarios) in accordance with the risk strategy of the Bank. Periodical modelling updates as well as changes in the market rates environment were factored in the hedging activities aiming to ensure margin stability.	Article 448.1 (d)
(i)	Any other relevant information regarding the IRRBB measures disclosed in template EU IRRBB1 (optional)		
(1) (2)	Disclosure of the average and longest repricing maturity assigned to non-maturity deposits	The behavioural modelling outcomes of non-maturity deposits are translated into replicating portfolios, which represent the repricing maturities assigned to the non-maturity deposits. The volume-weighted average repricing maturity of non-maturity deposits in scope of behavioural modelling is 2.4 years and its duration 2.2 years. While it should be noted that the longest assigned repricing maturity depends on the characteristics of each individual segment, ING Group-wide the longest assigned repricing maturity is 15 years.	Article 448.1 (g)

Funding and liquidity risk

Funding and liquidity risk is the risk that ING or one of its subsidiaries cannot meet its financial liabilities when they come due, at reasonable cost and in a timely manner. ING ensures that long-term obligations are adequately met with a diversity of stable funding instruments under both normal and stressed conditions. For more information, please refer to the Risk management paragraph of the Annual Report.

Asset encumbrance

As part of the liquidity buffer management, ING monitors the existing asset encumbrance. Encumbered assets represent the on- and off-balance sheet assets that are pledged or used as collateral for ING's liabilities. The presented numbers for encumbered and unencumbered assets are based on the CRR (Part VIII) requirements.

In 2023, the median asset encumbrance ratio for ING Bank is 18.9%.

EU AE1 - Encumbered and unencumbered assets

2023	Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
median in EUR million		Of which notionally eligible EHQLA and HQLA		Of which notionally eligible EHQLA and HQLA		Of which EHQLA and HQLA		Of which EHQLA and HQLA
Assets of the reporting institution	**104,137**	**17,481**			**904,365**	**171,241**		
Equity instruments	10,360	6,731	10,360	6,132	5,804	1,799	5,804	1,799
Debt securities	16,878	10,764	16,848	9,752	78,918	69,546	75,843	66,708
of which: covered bonds	1,382	1,183	1,344	1,155	8,757	7,693	8,344	7,330
of which: securitisations	69	47	65	46	5,611	4,581	5,502	4,438
of which: issued by general governments	6,794	6,677	6,831	6,610	56,674	48,515	54,547	45,576
of which: issued by financial corporations	9,924	2,736	9,702	2,656	17,507	17,507	16,433	16,433
of which: issued by non-financial corporations	603	603	599	599	1,659	353	1,579	342
Other assets	76,822	276			822,922	106,130		

EU AE1 - Encumbered and unencumbered assets

2022 median in EUR million	Carrying amount of encumbered assets	Of which notionally eligible EHQLA and HQLA	Fair value of encumbered assets	Of which notionally eligible EHQLA and HQLA	Carrying amount of unencumbered assets	Of which EHQLA and HQLA	Fair value of unencumbered assets	Of which EHQLA and HQLA
Assets of the reporting institution	**161,906**	**13,404**			**852,121**	**165,502**		
Equity instruments	6,660	3,965	6,660	3,965	6,211	2,071	6,211	2,071
Debt securities	17,003	9,038	16,713	8,518	70,892	43,870	68,123	41,029
of which: covered bonds	2,677	2,136	2,528	2,069	5,088	3,875	6,424	3,773
of which: asset-backed securities	200	156	192	144	5,677	4,512	5,667	4,458
of which: issued by general governments	7,171	5,460	6,919	5,314	55,056	29,226	52,803	26,070
of which: issued by financial corporations	9,339	3,977	9,397	3,722	12,056	10,779	11,532	10,693
of which: issued by non-financial corporations	675	350	673	346	1,126	364	1,116	349
Other assets	138,243	386			773,082	118,321		

EU AE2 - Collateral received and own debt securities issued

2023 median in EUR million	Fair value of encumbered collateral received or own debt securities issued	Of which notionally eligible EHQLA and HQLA	Unencumbered Fair value of collateral received or own debt securities issued available for encumbrance	Of which EHQLA and HQLA
Collateral received by the reporting institution	**117,590**	**104,044**	**42,681**	**28,534**
Loans on demand				
Equity instruments	21,630	12,857	9,136	1,841
Debt securities	95,274	91,344	35,312	26,463
of which: covered bonds	114	114	1,212	853
of which: securitisations	10,066	10,065	188	
of which: issued by general governments	78,548	78,042	11,113	11,113
of which: issued by financial corporations	15,039	11,686	11,880	2,624
of which: issued by non-financial corporations	1,463	1,426	3,309	3,018
Loans and advances other than loans on demand				
Other collateral received				
Own debt securities issued other than own covered bonds or securitisations				
Own covered bonds and asset-backed securities issued and not yet pledged			**90,244**	
TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED	**224,734**	**121,525**		

EU AE2 - Collateral received and own debt securities issued

2022			Unencumbered	
	Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
median in EUR million		Of which notionally eligible EHQLA and HQLA		Of which EHQLA and HQLA
Collateral received by the reporting institution	**95,883**	**72,467**	**30,359**	**25,764**
Loans on demand				
Equity instruments	22,049	8,391	3,055	1,997
Debt securities	73,099	64,076	27,622	24,719
of which: covered bonds	373	91	340	42
of which: securitisations	5,412	5,412	60	
of which: issued by general governments	61,839	55,725	16,114	15,884
of which: issued by financial corporations	9,646	6,561	6,073	5,576
of which: issued by non-financial corporations	1,310	1,236	2,534	1,228
Loans and advances other than loans on demand				
Other collateral received				
Own debt securities issued other than own covered bonds or securitisations				
Own covered bonds and asset-backed securities issued and not yet pledged			**34,342**	
TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED	**257,789**	**85,871**		

EU AE3 - Sources of encumbrance

	2023		2022	
median in EUR million	Matching liabilities, contingent liabilities or securities lent	Collateral received and own debt securities issued other than covered bonds and securitisations encumbered	Matching liabilities, contingent liabilities or securities lent	Collateral received and own debt securities issued other than covered bonds and securitisations encumbered
Carrying amount of selected financial liabilities	150,288	190,968	185,486	227,563

EU AE4 - Accompanying narrative information

(a)	ING Bank manages it balance sheet prudently whereby a variety of funding sources is readily available. Given this situation, the level of encumbrance of ING Bank's balance sheet is relatively low.
	The amounts are presented as the median of the four quarter end values of the reporting year. The median is calculated as the average of the two values in the middle of the order of four quarter end values.
	Encumbered assets on ING Bank's balance sheet comprise to a large extent mortgages and other loans which are used as cover pool for covered bond programs issued by subsidiaries in the Netherlands, Belgium and Germany, as well as external securitisations and other types of collateralised deposits. Of the total encumbered assets of the Bank, EUR 76 billion are loans and advances, mostly mortgages, that serve as collateral for these type of liabilities. The cover pool assets are not considered encumbered when the securities are retained within ING Bank. The issued securitisations and especially the covered bonds have over-collateralisation, meaning that the assets in the cover pool are higher than the issuance.
(b)	Furthermore, assets are encumbered as a result of the repo- and securities lending business and cash and securities collateral posted for derivative and clearing transactions in which pledging collateral is a requirement. As part of its normal securities financing and derivatives trading activities ING enters into standard master agreements such as ISDA and Global Master Repurchase Agreements (GMRA), which contain Credit Support Annexes (CSA) or other similar clauses. Under the terms of these contracts ING could be required to provide additional collateral in the event ING is downgraded by one of the established rating agencies. Refer to the paragraph Counterparty Credit Risk.
	To optimise the usage of collateral between the entities of the Bank ING has significant intraBank encumbrance

Environmental social and governance risk

Qualitative disclosures

The purpose of the tables below is to describe, in accordance with of Article 449a of Regulation (EU) No 575/2013, in:

- table 1: the integration of environmental risks, including specific information on climate change risks and on other environmental risks, in their business strategy and processes, governance and risk management;
- table 2: the integration of social risks in their business strategy and processes, governance and risk management; and
- table 3: the integration of governance risks in their governance and risk management.

As this information is already disclosed in various places, we have opted to create a navigation map to guide the readers.

Table 1 - Qualitative information on Environmental risk

	Business strategy and processes	Sources:
(a)	Institution's business strategy to integrate environmental factors and risks, taking into account the impact of environmental factors and risks on institution's business environment, business model, strategy and financial planning	(i) "Environment, social and governance overview" part of the Annual Report 2023, (ii) "Environmental, social and governance risk" part of the "Risk management" chapter in of the Annual Report 2023, (iii) "Risk management" chapter in 2023 Climate Report and (iv) "Metrics and Targets" chapter in the 2023 Climate Report.
(b)	Objectives, targets and limits to assess and address environmental risk in short-, medium-, and long-term, and performance assessment against these objectives, targets and limits, including forward-looking information about the design of business strategy and processes	(i) Environmental and social risk (ESR) framework on ing.com, (ii) "Metrics and Targets" in the 2023 Climate Report, (iii) "Managing climate risks" section in "ESG overview" chapter of the 2023 Annual Report 2023 and (iv) Different sectors transition plan inside the "Terra approach" section in the "ESG overview" chapter of the 2023 Annual Report.
(c)	Current investment activities and (future) investment targets towards environmental objectives and EU Taxonomy-aligned activities	(i) "Strategy" chapter of the 2023 Climate Report; "Metrics and Targets" chapter in the 2023 Climate Report and (ii) "Integration of the EU Taxonomy regulation" section of the "ESG overview" chapter in the 2023 Annual Report.
(d)	Policies and procedures relating to direct and indirect engagement with new or existing counterparties on their strategies to mitigate and reduce environmental risks	Environmental and social risk (ESR) framework on ing.com, Sustainable Business. This will be covered in the ESG Risk Framework which is currently being developed.
	Governance	
(e)	Responsibilities of the management body for setting the risk framework, supervising and managing the implementation of the objectives, strategy and policies in the context of environmental risk management covering relevant transmission channels	(i) "ESG risk governance" section in the "Governance" chapter of the 2023 Climate Report and (ii) "Risk governance" section in the "Risk management" chapter of the 2023 Annual Report.
(f)	Management body's integration of short-, medium- and long-term effects of environmental factors and risks, organisational structure both within business lines and internal control functions	(i) "ESG risk governance" section in the "Governance" chapter in the 2023 Climate Report. Currently under development and will be covered by the new ESG Risk Framework.
(g)	Integration of measures to manage environmental factors and risks in internal governance arrangements, including the role of committees, the allocation of tasks and responsibilities, and the feedback loop from risk management to the management body covering relevant transmission channels	(i) "Governance" chapter of the 2023 Climate Report and (ii) "Governance" section in the "ESG overview" chapter of the 2023 Annual Report. In the future this will be covered more in-depth by the ESG Risk framework.
(h)	Lines of reporting and frequency of reporting relating to environmental risk	(i) "Governance" chapter of the 2023 Climate Report and (ii) "Steering our portfolios and engaging with clients for positive climate impact" section in the "Strategy" chapter of the 2023 Climate Report. This will be covered by the new ESG Risk framework and supporting documents.

(i)	Alignment of the remuneration policy with institution's environmental risk-related objectives	(i) "ESG-linked executive remuneration" section in the "ESG overview" chapter of the 2023 Annual Report and (ii) Capital Requirements Regulation (CRR) Remuneration Disclosure published on ing.com.
	Risk management	
(j)	Integration of short-, medium- and long-term effects of environmental factors and risks in the risk framework	Partly covered in "Our approach to managing climate risk" section in the "Risk management" chapter of the 2023 Climate Report. This will be addressed by the new ESG Risk framework and environmental scorecard.
(k)	Definitions, methodologies and international standards on which the environmental risk management framework is based	(i) "Risk management" chapter of 2023 Climate Report, (ii) "Climate and environmental risks in IFRS 9 models" section from the "Risk management" chapter of the 2023 Annual Report, (iii) "Environmental, social and governance risk" section from the "Risk management" chapter of the 2023 Annual Report and (iv) "Managing climate risk" section from the "ESG overview" chapter of the 2023 Annual Report. This will be better covered by the new ESG Risk framework and supporting documents.
(l)	Processes to identify, measure and monitor activities and exposures (and collateral where applicable) sensitive to environmental risks, covering relevant transmission channels	(i) "Engaging with, advising and financing clients for positive climate impact" section in the "Strategy" chapter of the 2023 Climate Report, (ii) "Terra: net-zero in our portfolio" section in the "Metrics and targets" chapter of the 2023 Climate Report and (iii) "Terra approach" section in the "ESG overview" chapter of the 2023 Annual Report. Partially covered also in ESR Framework on ing.com. In the future, this will be covered by the new ESG Risk framework and supporting documents. Information on double materiality will be disclosed next year AR in line with CSRD requirements.
(m)	Activities, commitments and exposures contributing to mitigate environmental risks	(i) "Terra approach" section in the "ESG overview" chapter of the 2023 Annual Report, (ii) "Our approach to managing risk" section in the "Risk management" chapter of the 2023 Climate Report and (iii) "Our climate action milestones" section in the "Executive summary" chapter of the 2023 Climate Report.
(n)	Implementation of tools for identification, measurement and management of environmental risks	(i) "Terra approach" section in the "ESG overview" chapter of the 2023 Annual Report and (ii) "Our approach to managing risk" section in the "Risk management" chapter of the 2023 Climate Report.
(o)	Results and outcome of the risk tools implemented and the estimated impact of environmental risk on capital and liquidity risk profile	Not present.
(p)	Data availability, quality and accuracy, and efforts to improve these aspects	(i) "Product scoping and climate data-matching" section in the "Metrics and targets" chapter of the 2023 Climate Report, (ii) "Data quality, limitations and difference with 2021 figures" section in the "Metrics and targets" chapter of the 2023 Climate Report, (iii) "Update of previously disclosed data" section in the "Metrics and targets" chapter of the 2023 Climate Report, (iv) "Data quality and limitations" section in the "Annex" chapter of the 2023 Climate Report, (v) Mention in the "Annex" chapter of the 2023 Climate Report in all of the sections about the different Terra sectors (subsection "Data vendors, data quality and limitation") and (vi) "Continuing to close data gaps" section in the "ESG overview" chapter of the 2023 Annual Report.
(q)	Description of limits to environmental risks (as drivers of prudential risks) that are set, and triggering escalation and exclusion in the case of breaching these limits	(i) ESR Framework on ing.com, (ii) "Client engagement" section in the "Strategy" chapter of the 2023 Climate Report and (iii) "Risk mitigation" section in the "Environmental, social and governance risk" part of the "Risk management" chapter of the 2023 Annual Report.
(r)	Description of the link (transmission channels) between environmental risks with credit risk, liquidity and funding risk, market risk, operational risk and reputational risk in the risk management framework	(i) "Risk identification" section in the "Risk management" chapter of the 2023 Climate Report and (ii) "Risk identification" section in the "Environmental, social and governance risk" part of the "Risk management" chapter of the 2023 Annual Report. Will be further covered by the new ESG Risk Framework in the future.

Table 2 - Qualitative information on Social risk

	Business strategy and processes	Sources:
(a)	Adjustment of the institution's business strategy to integrate social factors and risks taking into account the impact of social risk on the institution's business environment, business model, strategy and financial planning	(i) Human Rights section as part of the Sustainability Strategy disclosed on the ING website. Partly on "Social" section in the "ESG overview" chapter of the 2023 Annual Report.
(b)	Objectives, targets and limits to assess and address social risk in short-term, medium-term and long-term, and performance assessment against these objectives, targets and limits, including forward-looking information in the design of business strategy and processes	(i) ESR page: Part of the human rights policy: https://www.ing.com/Sustainability/Sustainable-business/Environmental-and-social-risk-ESR.htm and (ii) Human rights page: part of the assessment of saliencies, taking a risk based approach tho address the most severe human rights impacts arising from ING's activities (following the UNGP Reporting Framework).
(c)	Policies and procedures relating to direct and indirect engagement with new or existing counterparties on their strategies to mitigate and reduce socially harmful activities	ESR framework on ing.com sets the requirements for onboarding clients (ESR client assessment) and on a transactional level (ESR transaction assessment). The human rights policy in the ESR framework is overarching.
	Governance	
(d)	Responsibilities of the management body for setting the risk framework, supervising and managing the implementation of the objectives, strategy and policies in the context of social risk management covering counterparties' approaches to:	Under development. Partially covered under ESR framework (section 3) on ing.com and "Social" section in the "ESG overview" chapter of the 2023 Annual Report.
(i)	Activities towards the community and society	
(ii)	Employee relationships and labour standards	
(iii)	Customer protection and product responsibility	
(iv)	Human rights	
(e)	Integration of measures to manage social factors and risks in internal governance arrangements, including the role of committees, the allocation of tasks and responsibilities, and the feedback loop from risk management to the management body	(i) "Social" section in the "ESG overview" chapter of the 2023 Annual Report and (ii) "Governance" chapter of the 2023 Climate Report. Partially covered under "The Road Ahead' in 2022 Human Rights Report. Under development. Will be published in the next human rights report (expected publication Feb 2024).
(f)	Lines of reporting and frequency of reporting relating to social risk	(i) Shortly covered in "Social" section in the "ESG overview" chapter of the 2023 Annual Report. We publish Human rights report every 1-1,5 years. ESR framework is updated frequently: check Updating our ESR policy framework' at https://www.ing.com/Sustainability/Sustainable-business/Environmental-and-social-risk-ESR.htm.
(g)	Alignment of the remuneration policy in line with institution's social risk-related objectives	(i) "ESG-linked executive remuneration" section in the "ESG overview" chapter of the 2023 Annual Report and (ii) Capital Requirements Regulation (CRR) Remuneration Disclosure published on ing.com.
	Risk management	
(h)	Definitions, methodologies and international standards on which the social risk management framework is based	Currently under development. Partially covered under ESR framework (section 3) on ing.com. Also partly covered in the "Social" section of the "ESG overview"of the 2023 Annual Report.
(i)	Processes to identify, measure and monitor activities and exposures (and collateral where applicable) sensitive to social risk, covering relevant transmission channels	
(j)	Activities, commitments and assets contributing to mitigate social risk	
(k)	Implementation of tools for identification and management of social risk	
(l)	Description of setting limits to social risk and cases to trigger escalation and exclusion in the case of breaching these limits	(i) "Human Rights engagement tool" in 2022 Human Rights Report and (ii) ESR Client Assessment guidance (section track record - social).
(m)	Description of the link (transmission channels) between social risks with credit risk, liquidity and funding risk, market risk, operational risk and reputational risk in the risk management framework	An update will be provided in the next Human rights report. It will be described in the next human rights report (Feb 2024).

Table 3 - Qualitative information on Governance risk

	Governance	Sources:
(a)	Institution's integration in their governance arrangements of the governance performance of the counterparty, including committees of the highest governance body, committees responsible for decision-making on economic, environmental, and social topics	(i) "Governance" chapter of the 2023 Climate Report and (ii) ESR screening process (section 2 in ESR framework on ing.com).
(b)	Institution's accounting of the counterparty's highest governance body's role in non-financial reporting	Not present.
(c)	Institution's integration in governance arrangements of the governance performance of their counterparties including:	(i) ESR Client Assessment guidance and (ii) ESR screening process (section 2 in ESR framework on ing.com).
(i)	Ethical considerations	
(ii)	Strategy and risk management	
(iii)	Inclusiveness	
(iv)	Transparency	
(v)	Management of conflict of interest	
(vi)	Internal communication on critical concerns	
	Risk management	
(d)	Institution's integration in risk management arrangements the governance performance of their counterparties considering:	(i) ESR Client Assessment guidance and (ii) ESR screening process (section 2 in ESR framework on ing.com).
(i)	Ethical considerations	
(ii)	Strategy and risk management	
(iii)	Inclusiveness	
(iv)	Transparency	
(v)	Management of conflict of interest	
(vi)	Internal communication on critical concerns	

Climate change Transition risk

Transition risks refer to any negative financial and/or non-financial impact due to the effect of the transition to a net zero and more environmentally sustainable economy. The transition includes:

- Climate and environment related policy changes.
- Technological changes.
- Market sentiment and demand changes.

Templates 1, 2 and 4 as disclosed hereunder are providing information on indicators of potential climate change transition risk of the banking book of ING. For template 3, we reference to the Climate report of September 2023 noting that the scope and methodology differ from the P3 ESG ITS. ING is working on aligning its strategy with the Pillar 3 template 3 requirements.

Credit quality of exposures

The purpose of Template 1 of the Pillar 3 ESG ITS is to show information on those assets prone to risks related to the transition to a low-carbon and climate-resilient economy, i.e. transition risk. In particular, institutions must disclose information on their exposures towards non-financial corporations that operate in sectors that contribute highly to climate change and in carbon-related sectors, and on the quality of those exposures, including credit quality information on non-performing exposures, stage 2 exposures and related impairments and provisions.

In particular, institutions must disclose in this template information on the gross carrying amount of loans and advances, debt securities and equity instruments provided to non-financial corporates, other than those included in the held-for-trading or held-for-sale portfolios, classified by NACE economic sector. The sectors have been determined by EBA as the climate-relevant or carbon-intensive.

In addition, institutions must provide in column b ("Of which exposures towards companies excluded from EU Paris-aligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation") of the template a further breakdown of exposures towards fossil fuel companies, towards companies operating in other carbon-related sectors as well as towards companies excluded from EU Paris-aligned Benchmarks. For the first time, for column 'b' ING used data acquired from an external data provider (Bloomberg) for the data on companies considered to do significant harm to environmental objectives (article 12.2).

The columns referred to the greenhouse GHG were for the first time included in the report, with the exception of scope 3 emissions (columns j). Scope 3 emissions will be disclosed with the first application date being June 2024. The calculation of the GHG emissions is in line with the methodology that has been developed and used internally for ING Climate Report.

For the maturity buckets, the following assumptions have been used:

- Where the amount is repaid in installments, the exposure shall be allocated in the maturity bucket corresponding to the last installment (in line with ITS Annex II instructions).
- Where the amount is on demand such as interbank loans, the exposure shall be allocated in the shortest maturity bucket "< 5 years".
- Where an exposure has no stated maturity for reasons other than the counterparty having the choice of the repayment date, or in the case of equity holdings, the amount of this exposure shall be disclosed in the largest maturity bucket "> 20 years" in line with ITS Annex II instructions.

For any implication that these exposures may have in terms of credit, market, operational, reputational and liquidity risks, we refer to the ESG chapter (section Climate risk) of the annual report 2023. In the table below, the stage 2 ratio and NPL ratio for the exposures towards sectors that highly contribute to climate change is 12.6% and 2.8% respectively.

Template 1: Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual maturity

	2023	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
	Sector/subsector	Gross carrying amount (Mln EUR)					Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions (Mln EUR)			GHG financed emissions (scope 1, scope 2 and scope 3 emissions of the counterparty) (in tons of CO2 equivalent)							
			Of which exposures towards companies excluded from EU Paris-aligned Benchmarks in accordance with points (d) to (g) of Article 12.1 and in accordance with Article 12.2 of Climate Benchmark Standards Regulation	Of which environmentally sustainable (CCM)	Of which stage 2 exposures	Of which non-performing exposures		Of which Stage 2 exposures	Of which non-performing exposures		Of which Scope 3 financed emissions	GHG emissions (column i): gross carrying amount percentage of the portfolio derived from company-specific reporting	<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years	Average weighted maturity
1	**Exposures towards sectors that highly contribute to climate change***	**186,357**	**12,677**	**1,070**	**23,509**	**5,214**	**-2,697**	**-432**	**-2,136**	**46,628,873**		**16.12 %**	**140,272**	**31,114**	**11,557**	**3,414**	**4**
2	A - Agriculture, forestry and fishing	3,199			492	242	-86	-5	-77	4,343,694		— %	1,817	1,173	128	81	5
3	B - Mining and quarrying	7,455	2,700		1,498	319	-229	-91	-131	4,472,668		30.38 %	5,271	1,725	457	2	4
4	*B.05 - Mining of coal and lignite*	3	3							5,711		90.07 %	3				2
5	*B.06 - Extraction of crude petroleum and natural gas*	2,916	494		395	114	-88	-6	-78	3,174,437		16.18 %	2,039	767	109		4
6	*B.07 - Mining of metal ores*	1,957	1,121		707	24	-85	-65	-19	315,139		53.28 %	1,535	422			4
7	*B.08 - Other mining and quarrying*	729	162		211	117	-49	-20	-29	140,196		17.13 %	597	129	3		3
8	*B.09 - Mining support service activities*	1,851	921		185	64	-7		-5	837,185		33.14 %	1,098	407	345	1	6
9	C - Manufacturing	47,567	4,170	438	5,456	1,209	-791	-169	-581	8,823,988		36.37 %	40,463	5,376	914	815	3
10	*C.10 - Manufacture of food products*	7,567	67	3	904	226	-123	-23	-94	840,487		12.51 %	6,296	889	125	257	3
11	*C.11 - Manufacture of beverages*	1,220	512		151	10	-11	-3	-6	216,214		46.09 %	916	91	207	6	3
12	*C.12 - Manufacture of tobacco products*									35		— %					2
13	*C.13 - Manufacture of textiles*	443	5		51	41	-19	-1	-18	22,695		0.07 %	326	78	31	7	3
14	*C.14 - Manufacture of wearing apparel*	90	18		34	6	-3		-3	8,598		25.96 %	83	5	1	1	2
15	*C.15 - Manufacture of leather and related products*	62			18	1	-2	-1	-1	1,971		— %	57	4			3

16	*C.16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials*	899			313	31	-23	-5	-17	92,891	— %	497	355	25	22	5
17	*C.17 - Manufacture of pulp, paper and paperboard*	873	87		97	11	-10	-2	-7	161,426	28.77 %	510	321	39	3	4
18	*C.18 - Printing and service activities related to printing*	433	7		69	7	-6	-2	-3	22,069	0.01 %	307	109	14	3	4
19	*C.19 - Manufacture of coke oven products*	2,580	1,955	60	15	89	-41		-41	972,088	73.99 %	2,262	195		123	2
20	*C.20 - Production of chemicals*	4,479	137		894	37	-72	-45	-23	1,559,412	28.90 %	3,734	517	199	29	3
21	*C.21 - Manufacture of pharmaceutical preparations*	1,051	3		112	28	-16	-2	-13	152,608	44.27 %	958	85	6	3	3
22	*C.22 - Manufacture of rubber products*	2,439	31	9	214	28	-26	-8	-15	214,477	28.01 %	2,096	294	12	36	3
23	*C.23 - Manufacture of other non-metallic mineral products*	1,537	216		178	17	-21	-3	-16	2,071,439	31.76 %	1,342	143	41	11	3
24	*C.24 - Manufacture of basic metals*	3,634	288	279	445	38	-45	-18	-24	1,078,539	27.29 %	3,288	321	9	16	2
25	*C.25 - Manufacture of fabricated metal products, except machinery and equipment*	2,754	44	23	534	123	-62	-7	-52	302,408	19.90 %	2,099	501	56	97	4
26	*C.26 - Manufacture of computer, electronic and optical products*	5,083	190	19	124	50	-19	-2	-15	194,166	78.05 %	4,692	353	2	36	1
27	*C.27 - Manufacture of electrical equipment*	2,842	108	38	189	27	-19	-4	-13	72,082	62.90 %	2,665	157	11	10	2
28	*C.28 - Manufacture of machinery and equipment n.e.c.*	2,385	66		284	99	-52	-7	-43	81,392	24.93 %	1,780	471	61	73	4
29	*C.29 - Manufacture of motor vehicles, trailers and semi-trailers*	2,283	322	2	62	60	-26	-5	-21	35,336	50.35 %	2,230	43	5	4	2
30	*C.30 - Manufacture of other transport equipment*	656	55		116	28	-15	-8	-7	38,010	36.89 %	616	34	2	4	2
31	*C.31 - Manufacture of furniture*	404			61	73	-46	-2	-44	50,992	— %	236	123	35	10	5
32	*C.32 - Other manufacturing*	3,850	60	3	588	177	-132	-23	-105	634,075	29.53 %	3,467	286	33	64	5
33	*C.33 - Repair and installation of machinery and equipment*	6			2					577	— %	4	1	1		6
34	D - Electricity, gas, steam and air conditioning supply	18,241	1,088	590	1,534	341	-180	-15	-152	13,924,074	12.00 %	10,057	3,976	3,668	540	6
35	*D35.1 - Electric power generation, transmission and distribution*	17,171	988	589	1,528	324	-163	-15	-136	12,580,124	13.24 %	9,043	3,921	3,667	540	6
36	*D35.11 - Production of electricity*	10,903	988	70	1,400	307	-149	-15	-124	11,107,956	11.36 %	5,104	2,043	3,217	539	8
37	*D35.2 - Manufacture of gas; distribution of gaseous fuels through mains*	771	100	1	4	16	-16		-16	1,335,914	18.39 %	720	51			2
38	*D35.3 - Steam and air conditioning supply*	299			2		-1			8,036	0.01 %	295	4			3
39	E - Water supply; sewerage, waste management and remediation activities	2,629	8		154	34	-14	-3	-10	877,305	7.15 %	2,084	344	177	23	4
40	F - Construction	9,524	19	26	1,630	345	-209	-25	-173	294,339	6.74 %	6,779	1,601	861	283	4
41	*F.41 - Construction of buildings*	5,224	2		998	212	-128	-12	-112	74,547	2.53 %	3,902	525	626	171	4
42	*F.42 - Civil engineering*	1,610	14	7	336	45	-38	-5	-31	83,706	7.98 %	1,100	435	27	48	4

43	*F.43 - Specialised construction activities*	2,690	2	19	296	88	-42	-8	-30	136,085		14.36 %	1,778	640	208	64	5
44	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	36,260	3,093		4,597	1,255	-677	-54	-594	3,356,147		14.29 %	30,385	3,761	822	1,292	5
45	H - Transportation and storage	25,374	1,497	17	1,874	357	-137	-29	-94	9,765,640		9.69 %	15,842	7,271	2,173	88	5
46	*H.49 - Land transport and transport via pipelines*	6,819	293		820	210	-92	-25	-61	1,129,813		11.82 %	4,813	1,337	618	51	5
47	*H.50 - Water transport*	9,895	1,140	14	443	42	-8	-1	-5	5,807,893		8.10 %	5,597	3,547	742	10	5
48	*H.51 - Air transport*	2,038	51		210	5	-2		-1	2,594,463		20.45 %	505	1,098	434	1	7
49	*H.52 - Warehousing and support activities for transportation*	6,397	13	1	291	96	-34	-2	-25	206,776		4.23 %	4,738	1,261	374	24	4
50	*H.53 - Postal and courier activities*	225		1	110	4	-2		-2	26,695		61.08 %	189	29	5	2	3
51	I - Accommodation and food service activities	2,136	14		508	226	-111	-17	-91	73,134		5.03 %	1,443	510	116	67	5
52	L - Real estate activities**	33,971	87		5,766	886	-264	-23	-233	697,884		0.35 %	26,130	5,378	2,241	223	4
53	**Exposures towards sectors other than those that highly contribute to climate change***	**45,935**	**1,798**	**17**	**5,233**	**1,064**	**-609**	**-105**	**-458**				**32,075**	**8,353**	**4,327**	**1,181**	**5**
54	K - Financial and insurance activities																
55	Exposures to other sectors (NACE codes J, M - U)	45,935	1,798	17	5,233	1,064	-609	-105	-458				32,075	8,353	4,327	1,181	5
56	**TOTAL**	**232,292**	**14,474**	**1,087**	**28,741**	**6,278**	**-3,306**	**-536**	**-2,594**	**46,628,873**		**16.12 %**	**172,348**	**39,467**	**15,884**	**4,595**	**4**

* In accordance with the Commission Delegated Regulation EU) 2020/1818 supplementing Regulation (EU) 2016/1011 as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks -Climate Benchmark Standards Regulation - Recital 6: Sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006

** The financed emissions of L- Real estate activities include the business loans belongs to NACE L sector, and other CRE assets possibly from other NACE sectors, to be consistent with PCAF methodology on asset classifications

Loans collateralised by immovable property collateral – Energy efficiency of the collateral

The purpose of template 2 of the Pillar 3 ESG ITS shows the gross carrying amount of loans collateralised with immovable property and of repossessed real estate collaterals with a breakdown by EPC label of the collateral.

The information on the level of energy efficiency of the collaterals is key to determine the climate change transition risk faced by these exposures.

The template consists of two main sections:

- Level of energy efficiency based on Energy Performance in kWh/m² of the collateral. Loans collateralised by immovable properties non-eligible for EPC have been scoped out;
- Level of energy efficiency based on EPC labels of the collateral. Only collateral that could have an EPC label that meet the Energy Performance of Buildings Directive are reported in this section. For instance, a (piece of) land might be given as collateral but is not eligible for EPC.

In line with the ITS instructions, the Energy Performance in kwh/m² is determined based on the EPC label or estimated in the absence of the EPC label. The extent to which this data is estimated and not based on EPC labels is visible in row 5 for EU area and row 10 for non-EU area. Data quality improvement projects are ongoing locally on EPC labels and Energy Performance data availability, as well as the development of new local and central models to estimate the energy efficiency score where not available.

In countries where EPC labels are issued with a higher level than A, these have been included in the column A. Same, in countries where EPC labels are present that are lower than G, these have been added to the column G. On the collected labels, only valid labels have been considered meaning labels that have been issued by the authorized authority and not older than 10 years.

Template 2: Banking book - Climate change transition risk: Loans collateralised by immovable property - Energy efficiency of the collateral

	2023	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
	Counterparty sector	Total gross carrying amount amount (in MEUR)															
			Level of energy efficiency (EP score in kWh/m² of collateral)						Level of energy efficiency (EPC label of collateral)							Without EPC label of collateral	
			0; <= 100	> 100; <= 200	> 200; <= 300	> 300; <= 400	> 400; <= 500	> 500	A	B	C	D	E	F	G		Of which level of energy efficiency (EP score in kWh/m² of collateral) estimated
1	**Total EU area**	**366,890**	**83,059**	**117,488**	**79,211**	**40,592**	**44,237**	**2,303**	**47,265**	**35,430**	**72,500**	**25,300**	**36,007**	**26,832**	**31,168**	**92,385**	**100 %**
2	Of which Loans collateralised by commercial immovable property	67,134	4,598	17,602	10,273	18,414	15,237	1,010	6,934	2,672	3,004	1,540	1,398	857	2,043	48,686	100 %
3	Of which Loans collateralised by residential immovable property	299,753	78,460	99,885	68,936	22,178	29,001	1,293	37,437	20,454	25,558	11,630	17,569	11,607	15,055	160,443	100 %
4	Of which Collateral obtained by taking possession: residential and commercial immovable properties	3	0	1	1	0	0	0								3	100 %
5	Of which Level of energy efficiency (EP score in kWh/m² of collateral) estimated	301,509	27,106	69,899	90,349	63,453	32,855	38,051								75,194	100 %
6	**Total non-EU area**	**46,068**	**39,793**	**2,342**	**2,593**	**1,125**	**193**	**23**	**174**	**589**	**594**	**301**	**218**	**47**		**44,145**	**100 %**
7	Of which Loans collateralised by commercial immovable property	8,387	3,435	1,365	2,247	1,125	191	23	174	482	496	300	218	47		6,670	100 %
8	Of which Loans collateralised by residential immovable property	37,682	36,358	977	346	0	2	0		106	98	2				37,475	100 %
9	Of which Collateral obtained by taking possession: residential and commercial immovable properties																— %
10	Of which Level of energy efficiency (EP score in kWh/m² of collateral) estimated	41,267	4	36,407	1,725	2,067	885	176								40,170	100 %

Top 20 carbon-intensive firms in the world

The template 4 below is showing aggregated information of ING's exposures towards the top 20 carbon-intensive companies in the world. It includes information on the average maturity of the exposures, providing some insight on how these exposures may be impacted by longer-term climate change transition risks. For more information on our decarbonizing strategy for the Oil & Gas sector we refer you to the Climate report.

As required by the ITS, the information used as basis in the table below is a publicly available reputable and accurate data source. ING decided to use the most recent published list by CDP (The Carbon Majors Database - CDP Carbon Majors Report 2017) and more particularly the sample emission from 2015.

The majority of the exposure within the top 20 are outside Europe, thus the EUT criteria are not fit for these types of exposures therefore an assessment is not possible (column c).

Template 4: Banking book - Climate change transition risk: Exposures to top 20 carbon-intensive firms

	a	b	c	d	e
	Gross carrying amount (aggregate) in EUR million	Gross carrying amount towards the counterparties compared to total gross carrying amount (aggregate)	Of which environmentally sustainable (CCM)	Weighted average maturity	Number of top 20 polluting firms included
1	2,306	1.0 %		1.9	9

Climate change physical risk

'Physical risk' is defined as the risk of losses arising from any negative financial impact on the institution stemming from the current or prospective impacts of the physical effects of environmental factors on the institution's counterparties or invested assets.

Template 5 discloses hereunder provide information on the indicators of potential climate change physical of the banking book of ING.

Exposures subject to physical risk

Template 5 provides information on exposures in the banking book (including loans and advances, debt securities and equity instruments not held for trading and not held for sale) towards non-financial corporates, on loans collateralised by immovable property and on repossessed real estate collateral that are exposed to chronic and/or acute climate-related hazards, with a breakdown by NACE economic sector.

Further, the ITS mentions that a breakdown of the exposures by geography of location of the activity of the counterparty or of the collateral should be disclosed. For this June 2023 disclosures, based on a best effort basis, we used for the NACE sectors the country of residence of the counterparty to define the geographical breakdown rather than the requested location of the activity.

Determination of geographical areas

The ITS stipulates that the breakdown shall cover the geographical areas exposed to negative impact from climate change physical events. Based on this, ING decided to disclose separate templates for countries with the highest sensitivity based on gross carrying amounts, besides the consolidated template reflecting the entire ING portfolio exposed to negative impact from climate change physical events. As the NUTS classification is only defined for EU member states and knowing that ING has significant exposure outside of the EU, ING preferred to use the country breakdown for the geographical overview.

Sensitivity methodology

In absence of clear guidance whether banks should report physical risk excluding or including supporting measures (i.e. inherent or residual risks) such as insurance coverage or government schemes, and based on the discussions in the industry, we decided to disclose the inherent risk (also market practice) as information on the supporting measures is not readily available for all the physical risk factors or all exposures. Besides, residual risk would not provide the risk level of information to determine which exposures are physical at risk.

For the loans collateralized by immovable property (rows 17 and 18) and repossessed collaterals (row 19) and NACE sectors for Business Banking clients, we collected granular location data and matched it with individual climate hazards assessed with an ING tool that has been internally developed. During this process, the collaterals were assessed against 10 different climate risk hazards using their geographical location. For this exercise 2 chronic 6 acute climate hazards were assessed for immovable property, whereas for business banking clients 2 chronic 7 acute climate hazards were assessed. The climate risk hazards have been mapped and aggregated into acute and/or chronic events as required in the ITS. For each assets, the level of risk is classified between low to high. For a specific collateral, the asset is considered at risk for acute (respectively chronic) if at least one of the hazard level of risk within the acute (respectively chronic) hazards is high. Additionally, these level of risk are provided for three different time horizons, and as the ITS suggests, the maturity of the loan was used to determine which time horizon to use in the assessment.

In terms of methodology, for the NACE sectors (rows 1 to 16), we have used a combination of resources. Bloomberg data on geolocation of the physical assets was used for the WB portfolio which was fed into INGs physical risk tool to assess the physical risk scores of each of ING's corporate clients. For corporates, the internal tool was used with 2 chronic and 7 acute climate hazards assessed. For clients were the geolocation data is not available, estimations on the physical risk scores were based on the available ones, per country and subsector. Moreover, the sector L - Real Estate Activities has been removed from the table, as the assets are fully collateralised by immovable properties thus assessed in rows 17 and 18.

Consolidated table and breakdown per sensitive geographical area

This table represents the sensitivity exposure for the consolidated ING portfolio. EUR 63.1 billion of our portfolio is sensitive to physical risk with EUR 42.7 billion (68%) being sensitive to chronic climate change events. The sensitive portfolio increased compared to last year following a methodology update. Based on the sensitivity analysis of our portfolio, Belgium, Australia and The Netherlands, covering 55% of our portfolio, are the most sensitive countries to physical risk. In line with the ITS requirements, separate tables for these countries have been included.

Template 5: Banking book - Climate change physical risk: Exposures subject to physical risk

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
		Gross carrying amount (Mln EUR)												
		of which exposures sensitive to impact from climate change physical events												
Consolidated		**Breakdown by maturity bucket**					of which exposures sensitive to impact from chronic climate change events	of which exposures sensitive to impact from acute climate change events	of which exposures sensitive to impact both from chronic and acute climate change events	Of which Stage 2 exposures	Of which non-performing exposures	**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**		
		<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years	Average weighted maturity							of which Stage 2 exposures	Of which non-performing exposures

1	A - Agriculture, forestry and fishing	3,199	195	16	9		3	150	40	28	21	41	-13		-12
2	B - Mining and quarrying	7,455	1,355	459	147		4	1,444	373	143	359	84	-60	-23	-36
3	C - Manufacturing	47,567	11,521	1,646	588	17	3	9,673	2,415	1,685	1,598	316	-223	-53	-150
4	D - Electricity, gas, steam and air conditioning supply	18,241	2,913	1,297	1,388	156	7	3,996	1,307	451	554	127	-64	-6	-54
5	E - Water supply; sewerage, waste management and remediation activities	2,629	313	49	28		4	285	90	16	32	13	-3		-3
6	F - Construction	9,524	2,804	591	624	5	4	3,180	363	480	691	132	-80	-9	-66
7	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	36,260	7,654	874	601	3	2	7,318	1,596	217	1,049	324	-209	-13	-187
8	H - Transportation and storage	25,374	3,934	1,884	881		5	5,183	1,107	410	401	101	-36	-7	-25
9	I - Accommodation and food service activities	2,136	226	33	12		3	208	50	13	69	41	-22	-3	
10	J - Information and communication	33,971	2,551	446	105	7	3	2,435	545	129	321	108	-44	-4	-37
11	M - Professional, scientific and technical activities	6,680	1,302	496	567	9	6	2,246	107	20	312	60	-44	-7	-33
12	N - Administrative and support service activities	13,007	2,208	361	91		3	2,173	343	144	248	80	-40	-5	-33
13	P - Education	256	41	17	10	—	5	59	7	1	15	2	-1	—	-1
14	Q - Human health and social work activities	3,942	559	223	188	14	6	900	67	17	169	27	-14	-6	-8
15	R - Arts, entertainment and recreation	641	72	15	5	—	4	75	14	3	7	1	-1	—	—
16	S - Other service activities	610	71	15	26	—	6	100	10	2	4	1	-1	—	—
17	Loans collateralised by residential immovable property	337,434	199	293	1,451	7,785	25	2,822	2,771	4,134	623	96	-11	-2	-8
18	Loans collateralised by commercial immovable property	75,521	1,147	140	221	106	6	398	616	599	452	11	-3	-1	-2
19	Repossessed collaterals	3	—	—	—	—	0	—	—	—	—	—	—	—	—

Belgium

For Belgium, EUR 19.7 billion of our portfolio is sensitive to physical risk with EUR 18.0 billion being sensitive to chronic climate change events.

Template 5: Banking book - Climate change physical risk: Exposures subject to physical risk

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
			Gross carrying amount (Mln EUR)												
			of which exposures sensitive to impact from climate change physical events												
			Breakdown by maturity bucket					of which exposures sensitive to impact from chronic climate change events	of which exposures sensitive to impact from acute climate change events	of which exposures sensitive to impact both from chronic and acute climate change events	Of which Stage 2 exposures	Of which non-performing exposures	Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		
	Belgium		<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years	Average weighted maturity							of which Stage 2 exposures	Of which non-performing exposures
1	A - Agriculture, forestry and fishing	392	13	8	8		3	24	1	4	1				
2	B - Mining and quarrying	105	26	16	2		3	40	4	1	1				
3	C - Manufacturing	5,387	1,923	657	386	9	3	2,320	194	462	414	127	-71	-6	-63
4	D - Electricity, gas, steam and air conditioning supply	329	83	41	43		3	123	7	37	7	2	-1		-1
5	E - Water supply; sewerage, waste management and remediation activities	282	6	9	1		2	15				13	-3		-3
6	F - Construction	4,110	1,904	428	540	5	3	2,420	41	416	376	112	-63	-5	-55
7	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	5,277	2,442	609	581	1	2	3,575	48	10	449	183	-119	-7	-108
8	H - Transportation and storage	1,833	718	199	155		2	890	58	125	94	22	-9	-2	-7
9	I - Accommodation and food service activities	360	14	12	11		3	32	1	4	1	7	-3		-2
10	J - Information and communication	907	214	23	13		2	238	11	2	12	13	-6		-6
11	M - Professional, scientific and technical activities	3,419	762	471	547	9	3	1,769	17	3	157	55	-35	-4	-30
12	N - Administrative and support service activities	1,615	285	65	68		2	360	11	48	52	42	-14	-1	-12
13	P - Education	35	9	8	10		2	27			4	1			
14	Q - Human health and social work activities	733	115	123	157	10	3	402	2	1	42	4	-3	-1	-2
15	R - Arts, entertainment and recreation	224	21	5	5		2	29	2		4	1			

		b	c	d	e	f	g	h	i	j	k	l	m	n	o
16	S - Other service activities	281	49	12	24		2	81	4	1	3				
17	Loans collateralised by residential immovable property	43,974	82	109	298	115	1	519	79	6	73	22	-3	-1	-2
18	Loans collateralised by commercial immovable property	18,665	107	64	80	5	1	224	29	2	14	5	-2		-1

Australia

For Australia, EUR 9.5 billion of our portfolio is sensitive to physical risk with EUR 4.7 billion being sensitive to both acute and chronic climate change events.

Template 5: Banking book - Climate change physical risk: Exposures subject to physical risk

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
			Gross carrying amount (Mln EUR)												
			of which exposures sensitive to impact from climate change physical events												
	Australia		**Breakdown by maturity bucket**					of which exposures sensitive to impact from chronic climate change events	of which exposures sensitive to impact from acute climate change events	of which exposures sensitive to impact both from chronic and acute climate change events	Of which Stage 2 exposures	Of which non-performing exposures	**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**		
			<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years	Average weighted maturity							of which Stage 2 exposures	Of which non-performing exposures
1	B - Mining and quarrying	702	177				2	126	31	20	7				
2	C - Manufacturing	456	169	1	3		6	102	29	41	4				
3	D - Electricity, gas, steam and air conditioning supply	1,909	584	117	30		3	550	110	71	66				
4	E - Water supply; sewerage, waste management and remediation activities	21	1				11								
5	F - Construction	357	218	1	3		4	38	181	4	77				
6	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	216	66	1	8		9	54	14	8	2				
7	H - Transportation and storage	370	63	19	2		5	75	4	5		1			
8	I - Accommodation and food service activities	2					15								
9	J - Information and communication	612	78	6			3	70	11	4	8				

10	M - Professional, scientific and technical activities	36	7		5		11	8	4						
11	N - Administrative and support service activities	326	43	27	3		6	61	9	3	3				
12	Q - Human health and social work activities	289	111	8	3		5	119	3	2	36		-2	-2	
13	S - Other service activities	5			1		11		2		1				
14	Loans collateralised by residential immovable property	36,145	61	25	602	5,955	17	434	2,228	3,981	494	59	-1		-1
15	Loans collateralised by commercial immovable property	3,623	971	50	108		2	13	519	597	425	5	-1		

The Netherlands

For The Netherlands, EUR 5.3 billion of our portfolio is sensitive to physical risk with EUR 3.7 billion being sensitive to chronic climate change events.

Template 5: Banking book - Climate change physical risk: Exposures subject to physical risk

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
			Gross carrying amount (Mln EUR)												
			of which exposures sensitive to impact from climate change physical events												
	The Netherlands		**Breakdown by maturity bucket**					of which exposures sensitive to impact from chronic climate change events	of which exposures sensitive to impact from acute climate change events	of which exposures sensitive to impact both from chronic and acute climate change events	Of which Stage 2 exposures	Of which non-performing exposures	**Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions**		
			<= 5 years	> 5 year <= 10 years	> 10 year <= 20 years	> 20 years	Average weighted maturity							of which Stage 2 exposures	Of which non-performing exposures
1	A - Agriculture, forestry and fishing	1,696	13	7	1		3	14	5	1					
2	B - Mining and quarrying	673	75	35	106		7	135	61	20	41				
3	C - Manufacturing	8,294	1,615	151	6	3	2	1,214	359	202	100	36	-2	-1	-20
4	D - Electricity, gas, steam and air conditioning supply	1,618	204	47	252		6	280	192	31	20	3	-2	-2	-2
5	E - Water supply; sewerage, waste management and remediation activities	257	24	4			3	22	6	1	7				

6	F - Construction	2,101	159	56	29		2	179	49	15	19	1			-1
7	G - Wholesale and retail trade; repair of motor vehicles and motorcycles	9,195	883	102	11		2	706	260	30	110	23	-1		-12
8	H - Transportation and storage	3,015	267	136	14		4	299	96	23	15	2			
9	I - Accommodation and food service activities	1,064	61	20			2	61	16	3	42				
10	J - Information and communication	1,983	356	53			1	313	80	16	28	4	-1		-2
11	M - Professional, scientific and technical activities	1,075	69	14	6		1	71	16	3	6	1			
12	N - Administrative and support service activities	2,692	252	15	1		2	209	48	11	36	2			-2
13	P - Education	112	13	2			1	11	3	1	3				
14	Q - Human health and social work activities	1,942	81	60	14	3	2	117	34	7	55	2			-2
15	R - Arts, entertainment and recreation	295	30	4			1	26	7	1					
16	S - Other service activities	210	15	1			1	12	3	1					
17	Loans collateralised by residential immovable property	114,889			3	4	0	6		2					
18	Loans collateralised by commercial immovable property	28,139		8			0	8							

Green Assets Ratio (GAR) information

Template 6 disclosed hereunder provide information on the GAR key performance indicators. Main information on the GAR is disclosed in the ING Annual report 2023 in the ESG overview section.

While Delegated Regulation (EU) 2021/2178 requires entities to estimate and disclose the GAR twice, once based on the turnover taxonomy alignment of the counterparty (for non-financial corporates) for general purpose lending, and again based on the capital expenditure (CapEx) taxonomy alignment of the counterparty for the same general purpose lending exposures, in this template institutions shall only disclose the GAR once, based on the turnover alignment of the counterparty for the general purpose lending part only.

For the stock, GAR (climate change mitigation), GAR (climate change adaptation), GAR (climate change mitigation and climate change adaptation) shall correspond to the KPI included in columns (b), (g) and (l) respectively of Template 8, accordingly.

Summary of key performance indicators (KPIs) on the Taxonomy-aligned exposures

Template 6: Summary of key performance indicators (KPIs) on the Taxonomy-aligned exposures

	KPI (in %)			
2023	Climate change mitigation	Climate change adaptation	Total (Climate change mitigation + Climate change adaptation)	% coverage (over total assets)*
GAR stock	6.96 %	— %	6.96 %	34.42 %
GAR flow	6.91 %	— %	6.91 %	88.26 %

* % of assets covered by the KPI over banks´ total assets

Summary of assets for the calculation of GAR

Template 7 disclosed hereunder provide information on assets for the calculation of GAR (in Million EUR). Institutions shall disclose in this template information on gross carrying amount of institutions' loans and advances, debt securities and equity instruments on their banking book, with a breakdown of the information by type of counterparty, including financial corporations, non-financial corporations, households, local governments as well as real estate lending towards households, and the taxonomy eligibility and taxonomy alignment of the exposures with regard to the environmental objectives of climate change mitigation and climate change adaptation as referred to in Article 9, points (a) and (b), of Regulation (EU) 2020/852.

In particular, institutions shall include in this template information necessary for the calculation of the GAR in accordance with Delegated Regulation (EU) 2021/2178. While Delegated Regulation (EU) 2021/2178 requires institutions to estimate and disclose the GAR twice, once based on the turnover taxonomy alignment of the counterparty (for non-financial corporates) for general purpose lending, and again based on the CapEx taxonomy alignment of the counterparty for the same general purpose lending exposures, in this template institutions shall only disclose the GAR once based only on the turnover alignment of the counterparty for the general purpose lending part.

The information included in the table below relates to climate change mitigation and climate change adaptation as referred to in Article 9, points (a) and (b), of Regulation (EU) 2020/852. Main information on the GAR is disclosed in the ING Annual report 2023 in the ESG overview section.

Template 7 - Mitigating actions: Assets for the calculation of GAR

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
		Disclosure reference date T														
		Climate Change Mitigation (CCM)					Climate Change Adaptation (CCA)					TOTAL (CCM + CCA)				
Million EUR	Total gross carrying amount	Of which towards taxonomy relevant sectors (Taxonomy-eligible)					Of which towards taxonomy relevant sectors (Taxonomy-eligible)					Of which towards taxonomy relevant sectors (Taxonomy-eligible)				
			Of which environmentally sustainable (Taxonomy-aligned)					Of which environmentally sustainable (Taxonomy-aligned)					Of which environmentally sustainable (Taxonomy-aligned)			
				Of which specialised lending	Of which transitional	Of which enabling			Of which specialised lending	Of which adaptation	Of which enabling			Of which specialised lending	Of which transitional /adaptation	Of which enabling
GAR - Covered assets in both numerator and denominator																

1	Loans and advances, debt securities and equity instruments not HfT eligible for GAR calculation	356,726	337,798	53,856		298	172	3	3				337,802	53,859		298	172
2	**Financial corporations**	14,567	4,397										4,397				
3	Credit institutions	14,351	4,397										4,397				
4	Loans and advances	7,327	2,185										2,185				
5	Debt securities, including UoP	7,024	2,211										2,211				
6	Equity instruments																
7	Other financial corporations	216															
8	of which investment firms	63															
9	Loans and advances	58															
10	Debt securities, including UoP																
11	Equity instruments	5															
12	of which management companies																
13	Loans and advances																
14	Debt securities, including UoP																
15	Equity instruments																
16	of which insurance undertakings	70															
17	Loans and advances	70															
18	Debt securities, including UoP																
19	Equity instruments																
20	**Non-financial corporations (subject to NFRD disclosure obligations)**	12,423	3,713	1,087		298	172	3	3				3,716	1,091		298	172
21	Loans and advances	12,257	3,712	1,087		298	172	3	3				3,716	1,090		298	172
22	Debt securities, including UoP	163	1	1									1	1			

23	Equity instruments	3															
24	**Households**	329,617	329,617	52,728									329,617	52,728			
25	of which loans collateralised by residential immovable property	329,617	329,617	52,728									329,617	52,728			
26	of which building renovation loans																
27	of which motor vehicle loans																
28	**Local governments financing**	119	71	41									71	41			
29	Housing financing																
30	Other local governments financing	119	71	41									71	41			
31	Collateral obtained by taking possession: residential and commercial immovable	3															
32	**TOTAL GAR ASSETS**	356,729	337,799	53,856		298	172	3	3				337,802	53,859		298	172
	Assets excluded from the numerator for GAR calculation (covered in the denominator)																
33	**EU Non-financial corporations (not subject to NFRD disclosure obligations)**	145,796															
34	Loans and advances	144,763															
35	Debt securities	874															
36	Equity instruments	159															
37	**Non-EU Non-financial corporations (not subject to NFRD disclosure obligations)**	74,076															
38	Loans and advances	73,887															
39	**Debt securities**	103															
40	Equity instruments	86															
41	Derivatives	22,797															

42	On demand interbank loans	2,722
43	Cash and cash-related assets	1,587
44	Other assets (e.g. Goodwill, commodities etc.)	170,628
45	**TOTAL ASSETS IN THE DENOMINATOR**	774,335
	Other assets excluded from both the numerator and denominator for GAR calculation	
46	**Sovereigns**	77,603
47	Central banks exposure	94,792
48	Trading book	34,549
49	**TOTAL ASSETS EXCLUDED FROM NUMERATOR AND DENOMINATOR**	206,944
50	TOTAL ASSETS	981,279

Summary of assets for the calculation of GAR (%)

Template 8 disclosed hereunder provide information on the percentage of the assets compared to the total covered assets for the calculation of GAR. This information is based on Template 7 data, while exhibiting the proportion of assets funding taxonomy relevant sectors.

Template 8 - Mitigating actions: GAR % - KPIs on stock

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
		Climate Change Mitigation (CCM)					Climate Change Adaptation (CCA)					TOTAL (CCM + CCA)					
	% (compared to total covered assets in the denominator)	Proportion of eligible assets funding taxonomy relevant sectors					Proportion of eligible assets funding taxonomy relevant sectors					Proportion of eligible assets funding taxonomy relevant sectors					Proportion of total assets covered
			Of which environmentally sustainable					Of which environmentally sustainable					Of which environmentally sustainable				
				Of which specialised lending	Of which transitional	Of which enabling			Of which specialised lending	Of which adaptation	Of which enabling			Of which specialised lending	Of which transitional /adaptation	Of which enabling	
1	GAR	44 %	7 %									44 %	7 %				34 %
2	Loans and advances, debt securities and equity instruments not HfT eligible for GAR calculation	95 %	15 %									95 %	15 %				36 %
3	Financial corporations	30 %										30 %					1 %
4	Credit institutions	31 %										31 %					1 %
5	Other financial corporations																
6	of which investment firms																
7	of which management companies																
8	of which insurance undertakings																
9	Non-financial corporations subject to NFRD disclosure obligations	30 %	9 %		2 %	1 %						30 %	9 %		2 %	1 %	1 %
10	Households	100 %	16 %									100 %	16 %				34 %
11	of which loans collateralised by residential immovable property	100 %	16 %									100 %	16 %				34 %

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
12	of which building renovation loans																
13	of which motor vehicle loans																
14	Local government financing	60 %	34 %									60 %	34 %				
15	Housing financing																
16	Other local governments financing	60 %	34 %									60 %	34 %				
17	Collateral obtained by taking possession: residential and commercial immovable properties	14 %										14 %					

Template 8 - Mitigating actions: GAR % - KPIs on flows

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
	% (compared to total covered assets in the denominator)	**Climate Change Mitigation (CCM)**					**Climate Change Adaptation (CCA)**					**TOTAL (CCM + CCA)**					
		Proportion of eligible assets funding taxonomy relevant sectors					**Proportion of eligible assets funding taxonomy relevant sectors**					**Proportion of eligible assets funding taxonomy relevant sectors**					**Proportion of total assets covered**
			Of which environmentally sustainable					**Of which environmentally sustainable**					**Of which environmentally sustainable**				
				Of which specialised lending	**Of which transitional**	**Of which enabling**			**Of which specialised lending**	**Of which adaptation**	**Of which enabling**			**Of which specialised lending**	**Of which transitional /adaptation**	**Of which enabling**	
1	GAR	73 %	7 %									73 %	7 %				88 %
2	Loans and advances, debt securities and equity instruments not HfT eligible for GAR calculation	73 %	7 %									73 %	7 %				88 %
3	Financial corporations	16 %										16 %					22 %
4	Credit institutions	16 %										16 %					22 %
5	Other financial corporations																
6	of which investment firms																

7	of which management companies							
8	of which insurance undertakings							
9	Non-financial corporations subject	25 %	7 %		25 %	7 %		7 %
10	Households	100 %	9 %		100 %	9 %		59 %
11	of which loans collateralised by	100 %	9 %		100 %	9 %		59 %
12	of which building renovation loans							
13	of which motor vehicle loans							
14	Local government financing							
15	Housing financing							
16	Other local governments financing							
17	Collateral obtained by taking possession: residential and commercial immovable properties							

Summary of other climate change mitigating actions that are not covered in Regulation (EU) 2020/852

The purpose of this template is to report other climate change mitigation measures and includes exposures of institutions that are not aligned with the Taxonomy under Regulation (EU) 2020/852, but which nevertheless are supporting counterparties in the transition and adaptation process for climate change mitigation and adaptation objectives (Exposures aligned to the EU Taxonomy will be reported in templates 6 to 9 as of December 2023 and 2024 respectively).

The financial instruments included in this template, loans and bonds, contribute to the mitigation of physical and transition-based risks arising from climate change. According to the nature and characteristics of the assets included in this template, and with the current availability of information, these exposures have been considered as contributing to mitigate climate change, and it is mentioned in the table when it is transition risks and/or physical risks. As the Taxonomy's technical criteria are still being implemented, the approach is based on the best effort basis. For this publication, the exposures that were confirmed that could not meet the EUT alignment requirements due to DNSH or minimum safeguards, or that were issued based on other standards than the EUT were included.

Template 10: Other climate change mitigating actions

	Type of financial instrument	Type of counterparty	Gross carrying amount (million EUR)	Type of risk mitigated (Climate change transition risk)	Type of risk mitigated (Climate change physical risk)	Qualitative information on the nature of the mitigating actions
1	Bonds (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)	Financial corporations	1,261	Yes	No	This mainly covers Green Bonds from FI (for Financial Corporations) and SSAs & GOVs (for Other Counterparties).
2		Non-financial corporations				
3		Of which Loans collateralised by commercial immovable property				
4		Other counterparties	1,736	Yes	No	
5	Loans (e.g. green, sustainable, sustainability-linked under standards other than the EU standards)	Financial corporations	27	Yes	Yes	Sustainable loans provided by Groenbank for investments that have a "green" certificate (groenverklaring) issued by the Dutch Government.
6		Non-financial corporations	807	Yes	No	EUR 805 mln Loans that fall under the EIB scheme that can be used to fund transactions with a sustainable character. These loans are issued to initiative that positively impacts: (1) energy transition, (2) increase energy efficiency buildings, (3) Circular economy, (4) Sustainable mobility. Tranche 2019: at least 50% of the loan must have a green purpose. Tranch 2023, at least 75% of the loan must have a green purpose. EUR 2 mln Loans BMKB-Groen used for making buildings more sustainable such as purchase of solar panels or Heat Pumps.
			980	Yes	Yes	Sustainable loans provided by Groenbank for investments that have a "green" certificate (groenverklaring) issued by the Dutch Government.
7		Of which Loans collateralised by commercial immovable property	441	Yes	Yes	Sustainable loans provided by Groenbank for investments that have a "green" certificate (groenverklaring) issued by the Dutch Government.
			4,583	Yes	No	Green commercial buildings from The Netherlands with an EPC label A.
8		Households	26	Yes	Yes	Sustainable loans provided by Groenbank for investments that have a "green" certificate (groenverklaring) issued by the Dutch Government.
9		Of which building renovation loans				
10		Other counterparties	8	Yes	Yes	Sustainable loans provided by Groenbank for investments that have a "green" certificate (groenverklaring) issued by the Dutch Government.

Other risks

Non-financial risk

AMA

Article 446 of the CRR requires institutions to disclose information on the approaches for the management of operational risk that should help to understand the assessment of own funds requirements for operational risk. This information is disclosed in the 'Risk management' section of the annual report. The table below provides information on the calculation of own funds requirements for operational risk management.

EU OR1 - Operational risk own funds requirements and risk-weighted exposure amounts

Banking activities	Relevant indicator			Own funds requirements	Risk exposure amount
2023	Year-3	Year-2	Last year		
Banking activities subject to basic indicator approach (BIA)					
Banking activities subject to standardised (TSA) / alternative standardised (ASA) approaches					
Subject to TSA:					
Subject to ASA:					
Banking activities subject to advanced measurement approaches AMA	18,061	18,461	18,654	3,080	38,500

EU OR1 - Operational risk own funds requirements and risk-weighted exposure amounts

Banking activities	Relevant indicator			Own funds requirements	Risk exposure amount
2022	Year-3	Year-2	Last year		
Banking activities subject to basic indicator approach (BIA)					
Banking activities subject to standardised (TSA) / alternative standardised (ASA) approaches					
Subject to TSA:					
Subject to ASA:					
Banking activities subject to advanced measurement approaches AMA	18,384	18,061	18,461	2,800	35,000

Compliance risk

Whistleblower

ING deems it's important that ING employees, former employees, candidates, and parties with whom ING has a business relationship (such as contractors, subcontractors and suppliers) can report, anonymously or not, alleged irregularities ('Concerns') regarding accounting or auditing matters, as well as any suspected or actual criminal conduct, unethical conduct or other misconduct, including a (suspected) breach of (EU) law, within the company, in accordance with its Whistleblower Policy. ING exercises the utmost care to protect the confidentiality of such a report and the anonymity of the Whistleblower, within the limits as defined by applicable laws and regulations. ING will not discharge, demote, suspend, threaten, harass or in any other way harm a whistleblower who has reported a Concern in good faith or of any person who participates or has participated in an investigation following a reported Concern.

Concerns are recorded in accordance with specific categories, as represented in the table below. The overview is limited to concerns reported through the dedicated whistleblower channels as alternative to standard reporting and escalation channels. The Concerns are reported periodically (in numbers and on content) via the Chief Compliance Officer up to the level of the Supervisory Board.

Whistleblower category of concerns

Number of cases reported	2023
Aggression and Violence	4
Anti-trust / Competition law	1
Breach of confidentiality and data privacy related to client / employee	9
Bribery / Corruption	4
Bullying	22
Conflicts of Interest	9
Discrimination	4
Financial Economic Crime	0
Fraud / Theft	7
Harassment	6
Market abuse / Insider trading	0
Other undesirable Behaviour	38
Other: (i) Breach of any external Law or Regulation or (ii) Breach of any ING Policy	17
Retaliation	1
Sexual Harassment	1
Unfair Customer Treatment	4
Work pressure / Unrealistic targets	22
Total	**149**

Whistleblower category of concerns

Number of cases reported	2022
Aggression and Violence	7
Anti-trust / Competition law	0
Breach of confidentiality and data privacy related to client / employee	7
Bribery / Corruption	1
Bullying	17
Conflicts of Interest	8
Discrimination	11
Financial Economic Crime	1
Fraud / Theft	6
Harassment	0
Market abuse / Insider trading	1
Other undesirable Behaviour	22
Other: (i) Breach of any external Law or Regulation or (ii) Breach of any ING Policy	7
Retaliation	4
Sexual Harassment	5
Unfair Customer Treatment	1
Work pressure / Unrealistic targets	5
Total	**103**

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General information

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Certain of the statements contained herein are not historical facts, including, without limitation, certain statements made of future expectations and other forward-looking statements that are based on management's current views and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. Actual results, performance or events may differ materially from those in such statements due to a number of factors, including, without limitation: (1) changes in general economic conditions, in particular economic conditions in ING's core markets, including changes affecting currency exchange rates and the regional and global economic impact of the invasion of Russia into Ukraine and the related international response measures (2) changes affecting interest rate levels (3) any default of a major market participant and related market disruption (4) changes in performance of financial markets, including in Europe and developing markets (5) fiscal uncertainty in Europe and the United States (6) discontinuation of or changes in 'benchmark' indices (7) inflation and deflation in our principal markets (8) changes in conditions in the credit and capital markets generally, including changes in borrower and counterparty creditworthiness (9) failures of banks falling under the scope of state compensation schemes (10) non-compliance with or changes in laws and regulations, including those concerning financial services, financial economic crimes and tax laws, and the interpretation and application thereof (11) geopolitical risks, political instabilities and policies and actions of governmental and regulatory authorities, including in connection with the invasion of Russia into Ukraine and the related international response measures (12) legal and regulatory risks in certain countries with less developed legal and regulatory frameworks (13) prudential supervision and regulations, including in relation to stress tests and regulatory restrictions on dividends and distributions (also among members of the group) (14) ING's ability to meet minimum capital and other prudential regulatory requirements (15) changes in regulation of US commodities and derivatives businesses of ING and its customers (16) application of bank recovery and resolution regimes, including write-down and conversion powers in relation to our securities (17) outcome of current and future litigation, enforcement proceedings, investigations or other regulatory actions, including claims by customers or stakeholders who feel misled or treated unfairly, and other conduct issues (18) changes in tax laws and regulations and risks of non-compliance or investigation in connection with tax laws, including FATCA (19) operational and IT risks, such as system disruptions or failures, breaches of security, cyber-attacks, human error, changes in operational practices or inadequate controls including in respect of third parties with which we do business and including any risks as a result of incomplete, inaccurate, or otherwise flawed outputs from the algorithms and data sets utilized in artificial intelligence (20) risks and challenges related to cybercrime including the effects of cyberattacks and changes in legislation and regulation related to cybersecurity and data privacy, including such risks and challenges as a consequence of the use of emerging technologies, such as advanced forms of artificial intelligence and quantum computing (21) changes in general competitive factors, including ability to increase or maintain market share (22) inability to protect our intellectual property and infringement claims by third parties (23) inability of counterparties to meet financial obligations or ability to enforce rights against such counterparties (24) changes in credit ratings (25) business, operational, regulatory, reputation and other risks and challenges in connection with climate change and Environmental, Social and Governance (ESG)-related matters, including data and reporting (26) inability to attract and retain key personnel (27) future liabilities under defined benefit retirement plans (28) failure to manage business risks, including in connection with use of models, use of derivatives, or maintaining appropriate policies and guidelines (29) changes in capital and credit markets, including interbank funding, as well as customer deposits, which provide the liquidity and capital required to fund our operations, and (30) the other risks and uncertainties detailed in the most recent annual report of ING Groep N.V. (including the Risk Factors contained therein) and ING's more recent disclosures, including press releases, which are available on www.ING.com.

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