Absa Group Limited

Pillar 3 risk management report

for the reporting period ended 31 December 2020

The 2020 Pillar 3 risk management report for the reporting period ended 31 December 2020 provides the prescribed annual view of Absa Group Limited (the Group) regulatory capital and risk exposures. It complies with:

- The Basel Committee on Banking Supervision (BCBS) Pillar 3 disclosure requirements (Pillar 3 Standard).
- Regulation 43 of the Regulations relating to Banks (Regulations), issued in terms of the Banks Act, 1990 (Act No. 94 of 1990), where not superseded by the Pillar 3 disclosure requirements.

The report is supplemented with the Group's Pillar 3 additional disclosure tables.

Management and the members of the Group Risk and Capital Management Committee (GRCMC) reviewed the report. For the reporting period, the Board is satisfied that the Group's risk and capital management processes operated effectively, and the Group is adequately capitalised and funded to support the execution of its strategy.

The information in this report is unaudited.

Contents

BCBS Pillar 3 disclosure requirements of sections and tables

References to disclosure requirements have been designated by [ ]

A Additional disclosure tables Pillar 3 risk management report for the reporting period ended 31 December 2020
B Not applicable to the Group

BCBS Pillar 3 disclosure requirements of sections and tables

A Additional disclosure tables Pillar 3 risk management report for the reporting period ended 31 December 2020
B Not applicable to the Group

1. Summary of risk profile and RWA

1. Summary of risk profile and RWA

1.1 Key performance metrics

Common equity tier 1 (CET1) ratio[1]
11.2%
2019: 12.1%

Economic capital (EC) coverage[1]
1.5
2019: 1.5

Leverage ratio[1]
7.2%
2019: 7.2%

Liquidity coverage ratio (LCR)[2]
120.6%
2019: 134.4%

Net stable funding ratio (NSFR)
115.9%
2019: 112.7%

Credit loss ratio (CLR)
1.92%
2019: 0.80%

Stage 3 ratio on gross loans and advances
6.3%
2019: 4.7%

Stage 1 and stage 2 coverage ratio
1.7%
2019: 1.1%

Stage 3 coverage ratio
42.5%
2019: 43.7%

Operational risk losses
R292m
2019: R824m

Review of current reporting period

- Capital ratios were lower year-on-year due to lower earnings during H1 2020, driven by higher impairments due to the impact of the Covid-19 pandemic. Ratios improved in H2 2020, due to improved earnings generation. Capital buffers remained strong, well above minimum regulatory requirements at all times.
- Liquidity continues to remain resilient and within risk appetite.
- The Group's excess over minimum regulatory requirements for capital and liquidity increased due to relief measures provided by the South African Reserve Bank (SARB) including the removal of the 2.5% capital conservation buffer and the reduction of the minimum LCR from 100% to 80%.
- The Group continued to invest in infrastructure, process re-engineering, employee development and technology to deliver improved operational resilience.
- The Group substantially completed separation from Barclays PLC on 5 June 2020 which included the successful rebranding of the ARO subsidiaries. This significantly reduced the change and third-party risks which had been heightened over the preceding three years. The completion of the project, which included ongoing engagement with regulators and clients, was a significant achievement.
- Broad based book growth occurred in Q1 2020 per the risk appetite set in accordance with the Group strategy. Despite the gradual restoration of economic activity towards the end of 2020, credit demand remained muted in the second half of the year, with the exception of growth in Retail and Business Banking (RBB) secured lending products off the back of cumulative demand and low historically low interest rates.
- Operational risk losses decreased amid the impact of the Covid-19 pandemic. The key drivers were reduced fraud, and transaction and payment processing losses.

Priorities

The Group's operating environment is expected to continue to be extremely challenging and risk, liquidity and capital management will remain a priority, including:

- The Group will seek to grow capital towards the middle of the Board target range of 11% to 12.5%, while recommencing dividends for the 2021 financial year in line with regulatory guidance to the industry as informed by Guidance Note 3 of 2021.
- Maintain heightened focus on operational resilience and proactively identify and mitigate risks arising from the Covid-19 pandemic.
- Align risk objectives with the Group's strategy to support its customers and communities in an efficient, responsible and sustainable way.
- Manage the payment relief strategy and the substantial downside risk presented by the uncertainty in the outlook where an economic recovery will likely be slow and off a low base.
- Ensure strategic and large change projects are properly scoped, fully capacitated and closely monitored through senior oversight, including independent quality assurance.
- Improve control, efficiency and operational resilience across critical processes including collections, cybersecurity and fraud, data management, disaster recovery and financial crime.
- Engage regulatory authorities and other stakeholders on upcoming regulatory changes, to ensure the most appropriate outcomes for the banking sector and broader economy.
- Assess and evaluate quantitative and qualitative implications of implementing Basel III enhancements, including the Fundamental Review of the Trading Book (FRTB) and the proposed amendments to the Regulations relating to Banks.

[1] All numbers include unappropriated profits.

[2] The Group LCR reflects an aggregation of the Bank LCR and the LCR of the Absa Regional Operations. (ARO). For this purpose, a simple average of the relevant three month-end data points is used for ARO. For the Bank, the LCR was calculated as a simple average of 90 calendar-day LCR observations.

1. Summary of risk profile and RWA

1.2 Risks arising from the operating environment

The Group actively identifies and assesses risks arising from internal and external environments and takes a proactive stance to identifying emerging risks. The consolidated response to these risks is monitored for effective implementation.

Globally, the Covid-19 pandemic significantly increased the risks faced by financial market participants and the economy, and materially changed the economic outlook. The Group's focus remains on proactive risk and capital management to positively position the Group for the uncertain future.

For further information, refer to the 2020 Financial Results Booklet.

Current and emerging risks	Management's response
Global recession with economic uncertainty	
• Recovery from significantly reduced economic activity at risk from further waves of infections and impacted by the speed of global Covid-19 vaccine rollouts. • Increasing sovereign debt levels, and reduced debt and interest servicing capacity, increases the possibility of sovereign defaults and an emerging markets debt crisis. • Global uncertainty resulting in increased global economic pressure and risk aversion to emerging markets.	• Maintain a dynamic approach to risk appetite setting in response to a changing outlook for 2021 and beyond. • Use stress scenarios to evaluate the potential outcomes of a variety of external and internal factors. On an ongoing basis, management develops mitigating actions and assesses their effectiveness to guide decision making.
Anticipated long-term impact of sovereign interventions	
• Actions taken by government, such as lockdowns, to curb the spread of Covid-19 infections result in economic hardship, higher unemployment, increased inequality, and lower business and consumer confidence. These negative impacts are only partially mitigated by social welfare measures. • Heightened risk of social unrest due to rising fatigue from lockdowns and public anger over deteriorating economic environments.	• Actively engage governments and communities to support initiatives to address economic hardship. • Monitor developments on an ongoing basis and proactively adjust business responses to address emerging risks, including re-evaluating credit policies and operational and resilience processes.
Increased pressure on the financial services industry	
While tentative signs of recovery are visible, the effects of further infection waves could exacerbate the already heightened stress experienced by stakeholders, such as: • Customer distress resulting in increased impairments and credit risk. • Increased long and short-term insurance claims negatively impacting solvency and capital requirements. • Reduced availability of capital supply, funding and liquidity. • Elevated business risk as earnings are impacted by the negative impact of the Covid-19 pandemic on the economy.	• Monitor and manage the payment relief strategy and the substantial downside risk presented by the uncertainty in the outlook where an economic recovery will likely be slow and off a low base. • Monitor leading indicators to ensure economic risks are effectively managed through: – Active preservation of capital and liquidity. – Re-evaluation and reduction of discretionary expenditure. – Proactive management of credit portfolio risks. – Hedging of interest rate risk and foreign exchange risk as appropriate.
Heightened resilience, fraud, people and cyber risks expected for the foreseeable future	
• Increasing pressure on the health of employees, customers and suppliers as subsequent waves of the pandemic continue. • Heightened pressure on operational resilience arising from the impact of the Covid-19 pandemic. • Heightened fraud risk arising from economic pressure. • Increasing opportunistic financial crime and cybercrime, combined with rising sophistication of criminal activity, impacting customers and the Group. • Heightened risk to employee wellness from the pandemic and a prolonged work from home situation.	• Adhere to health and safety recommendations, including monitoring infections and adherence to preventive measures, to keep our premises safe for employees, customers and suppliers. • Continue development of a vaccination plan for employees and stakeholders, in line with latest information. • Maintain heightened focus on operational resilience and proactively identify and mitigate risks. • Maintain high stability of the technology estate to minimise incidents impacting customers and operational effectiveness. • Continue to invest in security platforms and further strengthen controls to secure customer information including investments in technology, data capability (including external intelligence), customer awareness campaigns and industry collaboration. • Monitor and manage the impact on employees through an expanded Group wellness programme and supporting employees in the evolution of working environments.

1. Summary of risk profile and RWA

Current and emerging risks	Management's response
Strategic, execution and business risks arising from external and internal drivers	
• Swift and significant changes in the economic and social environment impact the execution of the Group's strategy, heightening business risk. • Disruption through changing customer preferences and competitor offerings. • Potential adverse impact of large strategic change projects on business risk, change risk and people risk.	• Monitor and manage risk strategy and risk appetite based on the ongoing evaluation of the global and regional developments to identify and mitigate risks as they arise, while enabling business to pursue selective strategic opportunities. • Ongoing alignment of risk objectives with the Group's strategy to support its customers and communities in an efficient, responsible and sustainable way. • Ensure sufficient investment to continue delivering scalable digital solutions that focus on current and evolving customer needs. • Build and embed a winning brand with a focus on innovative business processes and products designed to meet unique customer needs and preferences. • Ensure strategic and large change projects are properly scoped, fully capacitated and closely monitored through senior oversight, including independent quality assurance.
Increased compliance risk due to new and emerging regulations and oversight	
• Increasing pace and evolving complexity of regulatory and statutory requirements across the Group's markets on the current business model. • Potential long-term impact on business strategy and Group performance from regulatory change.	• Maintain a forward-looking approach to evaluate, respond to and monitor regulatory and statutory change. • Ongoing engagement with regulatory authorities and other stakeholders on upcoming regulatory changes, to ensure the most appropriate outcomes for the banking sector and broader economy. • Instil a culture of sound regulatory compliance across the Group. • Develop systems with the agility to accommodate rapid change. • Understand the impact of future requirements on current business model and practices, and proactively make necessary changes.
Environmental and social risks impact the Group, its customers and operating environment	
• Ongoing and rapid climate and social change will adversely impact communities, customers and sharply heighten the Group's credit and insurance risks. • Evolving complexities in the management of social trends and the societies and political environments in which the Group operates.	• Recognising the importance and urgency of climate change, the Group has elevated sustainability risk to a principal risk in the ERMF. • Implement the United Nations Environmental Programme Finance Initiative Principles for Responsible Banking (UNEP FI PRB) as well as the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). • Continue to reduce our direct environmental footprint in line with the Group's 2030 environmental action plan and understand physical climate risk impacts. • Embed processes to encourage customers to adopt business strategies and practices which are aligned with the Group's sustainability policy. Develop financing standards for other climate sensitive industries in line with the existing coal financing standard. • Enhance credit and insurance risk models to assess the impact of climate change risk. • Continue to develop internal capabilities to utilise scenario analyses and stress testing to better estimate the impact of climate change on the Group's portfolio to inform future decision making. • Regularly assess the suitability and strategic alignment of products and customer value propositions with changing environmental and social factors and the impact on the Group's risk profile. • Maintain focus on financial inclusivity of customers, including the ongoing support of small-medium enterprises.

1. Summary of risk profile and RWA

1.3 Overview of RWA [OV1]

The following table provides the RWA per risk type and the associated minimum capital requirements. Additional disclosures for each risk type, namely credit, counterparty credit, equity investment, securitisation, traded market and operational, are included in the sections that follow.

		Group				Bank[1]			
		a		b	c	a		b	c
		31 Dec 2020 RWA Rm	31 Dec 2019 RWA Rm	30 Sep 2020 RWA Rm	31 Dec 2020 MCR[2] Rm	31 Dec 2020 RWA Rm	31 Dec 2019 RWA Rm	30 Sep 2020 RWA Rm	31 Dec 2020 MCR[2] Rm
1	Credit risk (excluding counterparty credit risk (CCR))	663 636	632 682	674 198	76 318	467 595	444 506	462 530	53 773
2	Of which: standardised approach (SA)	180 421	183 801	200 791	20 748	62	9 083	112	7
3	Of which: foundation internal ratings-based (FIRB) approach	-	-	-	-	-	-	-	-
4	Of which: supervisory slotting approach	-	-	-	-	-	-	-	-
5	Of which: advanced internal ratings-based (AIRB) approach	483 215	448 881	473 407	55 570	467 533	435 423	462 418	53 766
6	CCR	20 210	15 703	17 638	2 324	19 443	14 546	15 662	2 236
7	Of which: standardised approach for CCR (SA-CCR)[3]	20 210	15 703	17 638	2 324	19 443	14 546	15 662	2 236
8	Of which: internal model method (IMM)	-	-	-	-	-	-	-	-
9	Of which: other CCR	-	-	-	-	-	-	-	-
10	Credit valuation adjustment (CVA)	14 663	12 092	9 225	1 686	13 844	12 092	9 225	1 592
11	Equity positions under the simple risk weight approach	4 080	4 252	3 970	469	1 714	1 865	1 569	197
12	Equity investments in funds – look-through approach	7 262	7 761	7 894	835	378	367	508	44
13	Equity investments in funds – mandate-based approach	-	-	-	-	-	-	-	-
14	Equity investments in funds – fall-back approach	-	-	-	-	-	-	-	-
15	Settlement risk	762	817	789	87	704	765	717	81
16	Securitisation exposures in banking book	4 451	232	2 743	512	4 451	232	2 743	512
17	Of which: IRB ratings-based approach (SEC-IRBA)	4 451	232	2 743	512	4 451	232	2 743	512
18	Of which: securitisation external RBA (SEC-ERBA), including internal assessment approach (IAA)	-	-	-	-	-	-	-	-
19	Of which: securitisation SA (SEC-SA)	-	-	-	-	-	-	-	-
20	Traded market risk	40 110	39 231	43 429	4 612	28 944	25 874	30 933	3 329
21	Of which: SA	18 142	18 540	20 243	2 086	6 976	5 183	7 747	802
22	Of which: internal model approach (IMA)	21 968	20 691	23 186	2 526	21 968	20 691	23 186	2 527
23	Capital charge for switch between trading book and banking book	-	-	-	-	-	-	-	-
24	Operational risk	117 197	102 915	107 648	13 478	80 107	63 105	68 440	9 212
	Non-customer assets	25 483	27 331	27 604	2 931	18 637	20 381	19 767	2 143
25	Amounts below the thresholds for deduction (subject to 250% risk weight)	17 207	17 957	17 993	1 979	4 227	5 077	4 328	486
26	Floor adjustment (after application of transitional cap)[4]	-	9 433	7 998		-	13 090	5 763	
27	Total (1+6+10+11+12+13+14+15+16+20+23+24+25+26+non-customer assets)	915 061	870 406	921 129	105 232	640 044	601 900	622 185	73 605

[1] Absa Bank Limited includes subsidiary undertakings, special-purpose entities, joint ventures, associates and offshore holdings.

[2] The 2020 minimum RC requirements of 11.5% (2019: 12.5%) include the capital conservation buffer and the D-SIB add-on but exclude the bank-specific individual capital requirement (Pillar 2b add-on).

[3] SA-CCR amount is calculated using the CEM.

[4] The floor adjustment is not required for December 2020, due to the operational risk AMA modelled amount exceeding the AMA floor by R4.4bn.

2. Basis of preparation

2. Basis of preparation

2.1 Scope of consolidation

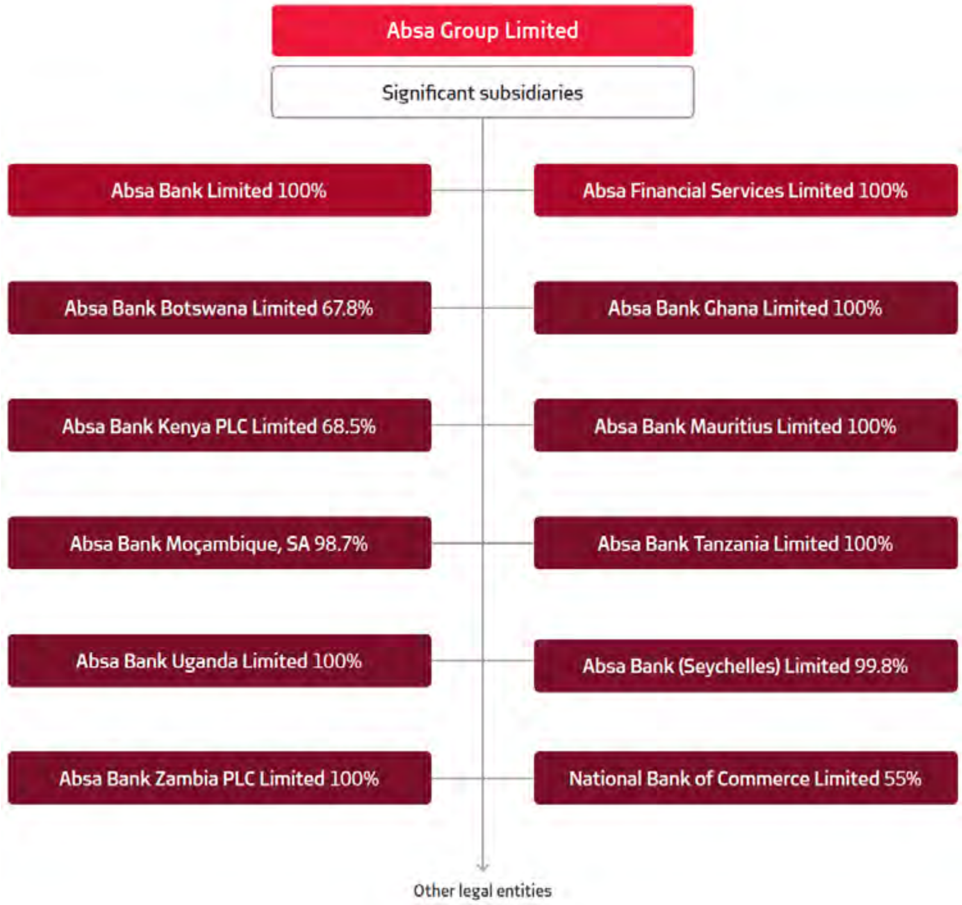
The Group's registered head office is in Johannesburg, South Africa. Absa operates in 14 countries. Significant subsidiaries are in Botswana, Ghana, Kenya, Mauritius, Mozambique, the Seychelles, South Africa, Tanzania (Absa Bank Tanzania and National Bank of Commerce), Uganda and Zambia. In addition, the Group has offices in Namibia and Nigeria, as well as insurance operations in Botswana, Kenya, Mozambique, South Africa, Tanzania and Zambia. The Group has an international presence in the United Kingdom and in the United States.

In February 2020, the Group completed the launch of the Absa brand in seven markets - Botswana, Ghana, Kenya, Mauritius, Seychelles, Tanzania, Zambia – following Uganda and Mozambique which were completed in November 2019.

The renaming of all the subsidiaries was a substantial milestone in Absa's separation from Barclays PLC which was successfully completed in 2020.

Disclosure in this report is presented on a consolidated basis for the Group. The consolidation is similar to that used for reporting to the South African Reserve Bank (SARB). Insurance entities were deconsolidated for regulatory reporting purposes.

The legal structure below outlines the Group's holdings:



2.2 Pillar 3 risk management report oversight

The purpose of the Pillar 3 risk management report is to provide a comprehensive view of the Group's RC and risk exposures. It complies with:

- The BCBS revised Pillar 3 disclosure requirements (Pillar 3 Standard).
- Regulation 43 of the Regulations relating to Banks (Regulations), issued in terms of the Banks Act, No. 94 of 1990 (Banks Act), where not superseded by the revised Pillar 3 disclosure requirements.

The information in this report is unaudited.

For the reporting period 31 December 2020 (compared with 31 December 2019), the Board is satisfied that the Group's risk and capital management processes operated effectively, that business activities were managed within the Board-approved risk appetite, and that the Group is adequately capitalised and funded to support the execution of its strategy.

2.3 Preparation, validation and sign-off

This report was prepared in line with the Board-approved public disclosure policy. The policy sets out responsibilities in the preparation, validation and sign-off of the report. The Chief Risk Officers (CROs) confirmed that all data submissions in this report are correct. The Group's risk function centrally reviewed and challenged the disclosures to ensure they are a fair representation of the risk profile. The report was validated and approved through the Group's risk governance channels which include Principal Risk Officers (PROs), the Group Chief Risk Officer (GCRO), Group Financial Director, and the Group Risk and Capital Management Committee (GRCMC).

2. Basis of preparation

2.4 Scope of application of Basel measurement

The Group applies the following RC demand measurement approaches when determining its Pillar 1 capital requirements:

Risk type	Approach used
Credit risk (South Africa)	
• Retail and wholesale credit risk	• AIRB
• CCR	• CEM[1] and AIRB
• CVA	• SA
• Securities financing	• Comprehensive approach
• Statutory reserve	• SA
• Liquid asset portfolio	• AIRB
• Equity investment risk in the banking book – listed and unlisted	• Market-based simple risk weight approach
• Investments in associates and joint ventures	• Equity investments in funds-look-through approach and pro rata consolidated methodology or the deduction approach
Credit risk (ARO)	
• All entities and credit risk types	• SA
Traded market risk	
• General position risks for trading book positions	• IMA
• Issuer-specific risks for trading book positions	• SA
Operational risk	
• Operational risk – majority of the Group's divisions	• Advanced measurement approach (AMA)
• Certain joint ventures and associates and ARO legal entities	• Basic indicator approach (BIA) or SA
Other risks	
• Non-customer assets	• SA

2.5 Accounting policies and valuation methodologies

The principal accounting policies applied are set out in the Group's most recent audited annual financial statements.

2.6 Linkages between financial statements and regulatory exposures

Where a different treatment is applied for Basel regulatory reporting compared to statutory accounting reporting, the approach is set out below:

Entity	Statutory accounting treatment	Basel III regulatory treatment
Subsidiaries engaged in insurance activities (Absa Financial Services Limited (AFS))	Consolidated	Excluded from the calculation of the capital adequacy ratio
Associates, joint ventures and participation in businesses that are financial in nature	Equity-accounted	Deducted from qualifying capital or proportionately consolidated
Associates, joint ventures and participation in businesses that are not financial in nature	Equity-accounted	Included in equity investment risk capital

[1] Current exposure method (CEM).

2. Basis of preparation

2.6.1 Differences between accounting and regulatory scope of consolidation and mapping of financial statement categories with regulatory risk categories [LI1]

The carrying values under the scope of regulatory consolidation below are based on the SARB's regulatory requirements. The financial statement carrying values reflect IFRS requirements.

	a	b	c	d	e	f			g
	2020								
			Carrying values of items						
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to credit risk framework	Subject to CCR framework	Subject to securitisation framework	Subject to market risk framework	Equity Investment Risk	Other Assets	Not subject to capital requirements or subject to deduction from capital
	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Assets									
Cash, cash balances and balances with central banks	60 682	57 597	6 484	-	-	-	-	51 209	-
Investment securities	153 504	148 799	145 516	-	-	-	3 288	-	-
Loans and advances to banks	84 538	83 485	46 139	35 590	-	35 590	-	-	-
Trading portfolio assets	213 521	213 518	65 925	98 222	-	110 431	35 243	-	-
Hedging portfolio assets	11 000	11 000	-	6 847	-	6 847	-	-	-
Other assets	20 417	19 591	-	-	-	-	-	11 630	-
Current tax assets	865	705	-	-	-	-	-	-	-
Non-current assets held for sale	144	144	-	-	-	-	-	136	-
Loans and advances to customers	929 969	929 969	844 108	37 001	-	37 001	-	-	-
Reinsurance assets	680	-	-	-	-	-	-	-	-
Investments linked to investment contracts	21 273	-	-	-	-	-	-	-	-
Investments in associates and joint ventures	1 601	1 601	-	-	-	-	1 601	-	-
Investment properties	496	258	-	-	-	-	-	258	-
Property and equipment	17 094	17 015	-	-	-	-	-	17 015	-
Goodwill and intangible assets	11 050	10 712	-	-	-	-	-	-	10 712
Deferred tax assets	4 286	4 133	-	-	-	-	-	-	4 133
Total assets	1 531 120	1 498 527	1 108 172	177 660	-	189 869	40 132	80 248	14 845

2. Basis of preparation

	a	b	c	d	e	f			g
	2020								
			Carrying values of items						
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to credit risk framework	Subject to CCR framework	Subject to securitisation framework	Subject to market risk framework	Equity investment risk	Other Assets	Not subject to capital requirements or subject to deduction from capital
	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Liabilities									
Deposits from banks	96 106	96 106	-	-	-	-	-	-	96 106
Trading portfolio liabilities	108 976	108 976	-	74 799		108 976			-
Hedging portfolio liabilities	4 868	4 868	-	-	-	-	-	-	4 868
Other liabilities	33 905	32 688	-	-	-	-	-	-	32 688
Provisions	3 959	3 876	-	-	-	-	-	-	3 876
Current tax liabilities	290	278	-	-	-	-	-	-	278
Non-current liabilities held for sale	-	-	-	-	-	-	-	-	-
Deposits due to customers	951 894	951 894	-	-	-	-	-	-	951 894
Debt securities in issue	145 740	145 740	-	-	-	-	-	-	145 740
Liabilities under investment contracts	27 533	3 262	-	-	-	-	-	-	3 262
Policyholder liabilities under insurance contracts	4 198	2 164	-	-	-	-	-	-	2 164
Borrowed funds	20 761	20 761	-	-	-	-	-	-	20 761
Deferred tax liabilities	587	293	-	-	-	-	-	-	293
Total liabilities	1 398 817	1 370 906	-	74 799	-	108 976	-	-	1 261 930

Column b: The regulatory scope of consolidation excludes balances related to the Group's insurance entities. The financial statements include these balances.

Columns c to g: The carrying value under regulatory scope of consolidation does not equal the sum of the amounts subject to the different risk framework due to:

- Derivative financial instruments (contained in trading portfolio assets, trading portfolio liabilities and hedging portfolio assets) are subject to RC for both CCR and market risk.
- Reverse repos to non-banks included in loans and advances to customers are subject to RC under the credit and CCR frameworks.
- Reverse repos to banks are included in loans and advances to banks and are subject to RC under the credit and CCR frameworks.

2. Basis of preparation

2.6.2 Main sources of differences between regulatory exposure amounts and carrying values in financial statements [LI2]

		a				b	c
	2020						
		Items subject to					
	Total	Credit risk framework	Securitisation framework	CCR framework	Market risk framework	Equity investment risk	Other assets
	Rm	Rm	Rm	Rm	Rm	Rm	Rm
1 Asset carrying value amount under scope of regulatory consolidation (as per template LI1)	1 483 681	1 108 172	-	177 660	189 869	40 132	80 248
2 Liabilities carrying value amount under regulatory scope of consolidation (as per template LI1)	108 976	-	-	74 799	108 976	-	-
3 **Total net amount under regulatory scope of consolidation**	**1 374 705**	**1 108 172**	**-**	**102 861**	**80 893**	**40 132**	**80 248**
4 Off-balance sheet amounts	-	354 237	-	-	-	-	-
5 Differences in valuations	-	25 764	-	(35 259)	-	(37 378)	-
6 Differences due to consideration of provisions	-	(36 830)	-	-	-	-	-
7 Credit conversion factor (CCF)	-	(124 420)	-	-	-	-	-
8 Significant investments not subject to RWA	-	-	-	-	-	-	-
9 **Exposure amounts considered for regulatory purposes**	**1 374 705**	**1 326 923**	**-**	**67 602**	**80 893**	**2 754**	**80 248**

The most important drivers of the difference between the carrying value and exposures considered for regulatory purposes are: [LIA]

- Line 4: Pre-CCF off-balance sheet exposures that contribute to the regulatory credit risk framework.
- Line 5: Differences in valuations under the credit risk framework relate to differences in treatment between risk and finance due to eliminations and grossing up of transactions, including netting and valuation effects under the CCR framework as well as valuation effects under the CCR framework.
- Line 6: Differences due to consideration of provisions relate to impairments under the AIRB approach deducted from credit risk framework in table LI1.

The exposure amounts considered for regulatory purposes in table LI2 above correspond to the exposure reported in the following tables:

- Credit risk framework total corresponds to the sum of exposure at default (EAD) post-CRM and CCF in table CR6 on page 41 and exposures post-CCF and CRM in table CR4 on page 37.
- Securitisation framework total corresponds to the sum of securitisation exposures where the Group acted as originator and sponsor in table SEC1 on page 58.
- CCR framework total corresponds to the sum of EAD post-CRM under the different approaches in table CCR1 on page 53.

Equity investment risk total corresponds to the sum of exposure amount in table CR10 on page 61.

2. Basis of preparation

2.6.3 Prudent valuation adjustments (PVA) [PV1]

The total PVA adjustment for 2020 amounted to R725m (2019: R208m), of which R662m related to the South African operation and R63m to ARO.

The Group has a robust independent valuation control framework responsible for ensuring positions held at fair value are valued at exit price as evidenced by independent market data and according to IFRS. PVA is considered the excess of valuation adjustments required to achieve the identified prudent value over and above any adjustments applied under IFRS and recognised in CET1 capital.

On 3 September 2020, the Prudential Authority (PA) issued Directive D5/2020 providing additional guidance on the requirements for calculating PVA under the core approach along with the methodology to assess whether a bank meets the requirements for the calculation of PVA under the simplified approach.

	2020		
	Full PVA Rm	Trading book Rm	Banking book Rm
Absa Bank	659 195	307 021	352 174
Absa Group	3 115	-	3 115
Absa Regional Operations	62 569	14 183	48 386
Africa WIMI	1 454	-	1 454
Mozambique	1 652	67	1 585
Botswana	3 188	412	2 776
Ghana	13 865	5 565	8 300
Kenya	17 220	5 156	12 064
Mauritius Offshore	6 196	28	6 168
Mauritius Onshore	5 275	1 208	4 067
NBC	2 689	331	2 358
Nigeria	9	-	9
Seychelles	-	-	-
Tanzania	2 117	351	1 766
Uganda	5 947	943	5 004
Zambia	2 957	122	2 835
Total PVA	724 879	321 204	403 675

2.6.4 Asset encumbrance [ENC]

The table below depicts the carrying amount of encumbered and unencumbered assets:

	a	b	c	d
	2020			
	Encumbered assets Rm	Central bank facilities Rm	Unencumbered assets Rm	Total Rm
Assets				
Investment securities	2 740	4 074	141 985	148 799
Loans and advances to banks and customers	37 989	-	975 465	1 013 454
Trading portfolio assets	15 244	-	198 274	213 518
Other assets	-	-	122 756	122 756
Total assets	55 973	4 074	1 438 480	1 498 527

Encumbered assets are assets that the Bank is restricted or prevented from liquidating, selling, transferring or assigning due to legal, regulatory, contractual or other limitations.

3. Risk management overview

3. Risk management overview

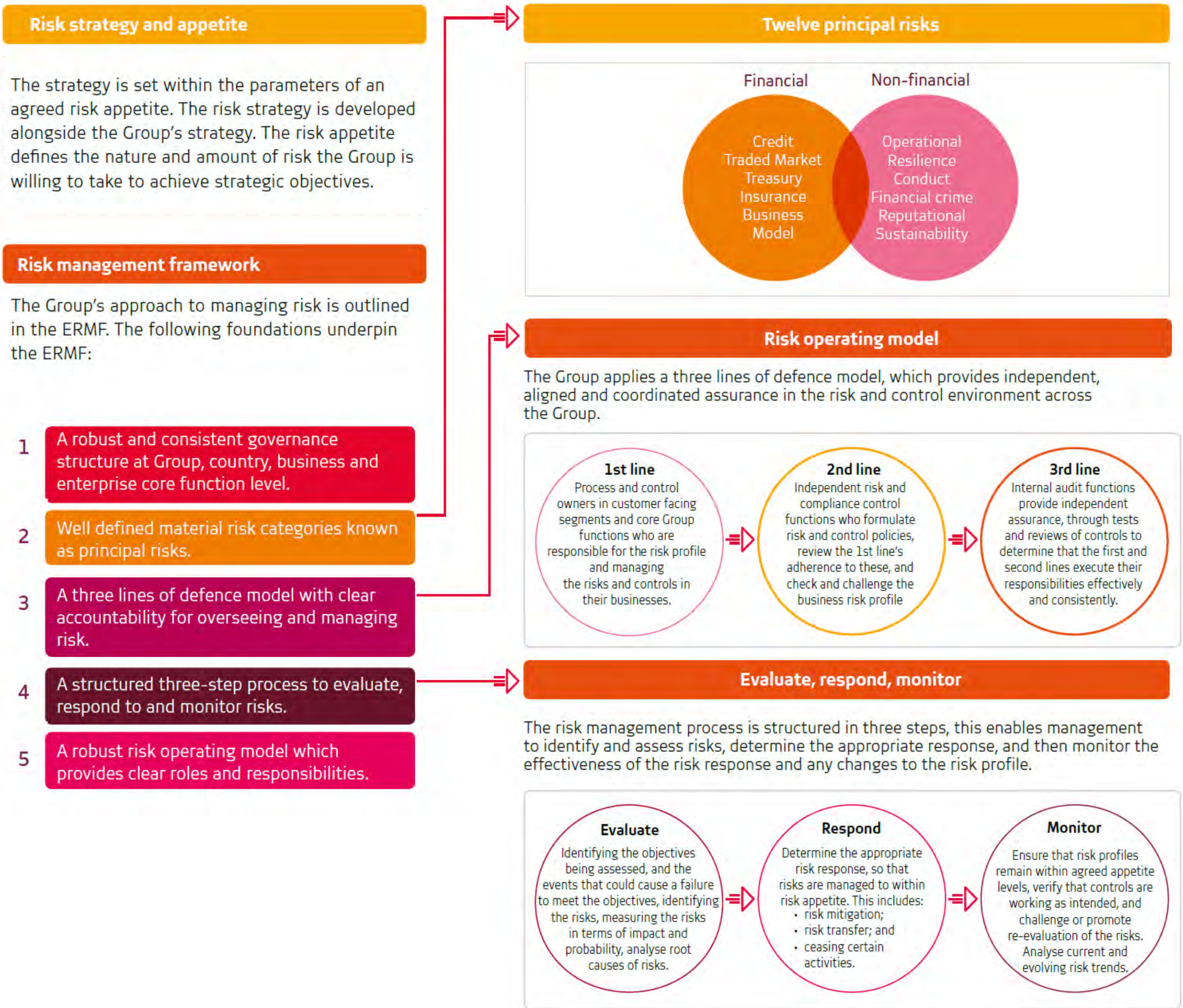
3.1 Risk management approach [OVA]

The Group actively identifies and assesses risks arising from internal and external environments and takes a proactive approach to identifying emerging risks. The consolidated response to these risks is monitored for effective implementation:

- An integrated and dynamic governance structure at Group, country, and business and core function levels, promoting a sound risk culture.
- Well-defined material risk categories, known as principal risks, for complete risk coverage.
- A combined assurance model with clear accountability for managing and overseeing the effective execution of assurance throughout the Group.
- Comprehensive and structured processes for evaluating, responding to and monitoring risks.
- An efficient risk culture stipulating an effective risk operating model and appropriate risk practices, tools and techniques to support the Group's strategy.

3.2 Enterprise Risk Management Framework (ERMF)

The following graphic is a visual representation of the ERMF:



The role of risk management is to evaluate, respond to and monitor risks in the execution of the Group's strategy. The Group's strategy is supported by an effective ERMF. The Group's risk function performs conformance reviews; checks and challenges the risk profile; and retains independence in analysis and decision-making, underpinned by regular reporting to the Executive Committee and the Board. The GCRO assumes responsibility for the ERMF.

The ERMF:

- Outlines the approach to the management of risk and provides the basis for setting frameworks and policies, and establishing appropriate risk practices throughout the Group;
- Defines the risk management process and sets out the activities, tools, techniques and the operating model to ensure material risks can be identified and managed;

3. Risk management overview

- Ensures appropriate responses are in place to protect the Group and its stakeholders; and
- Sets out principal risks and assigns clear ownership and accountability for these risks.

The principal risks as defined in the ERMF are credit, traded market, treasury, insurance, business, model, operational, resilience, conduct, financial crime, reputational and sustainability. Risks are defined in recognition of their significance to the Group's strategic ambitions.

3.3 Strategy and risk appetite

3.3.1 Strategy, business model and risk appetite

The Group creates, grows and protects wealth through its banking, insurance and wealth businesses by implementing the Group's business strategy. The strategy focuses on opportunities for growth and considers the matters believed to be material to long-term sustainability. It is the key driver of risk and return and should be achieved within risk appetite.

The risk strategy is developed alongside the Group's business strategy and forms an integral part of the integrated planning process. Within the risk strategy, risk appetite defines the nature and amount of risk that the Group is willing to take to meet its strategic objectives. This forms part of the strategic planning process to ensure the business strategy is achievable within risk appetite, and risk information is considered in the organisation's decision-making and planning process.

The Group's risk appetite:

- Specifies the level of risk the Group is willing to take.
- Considers all principal and material risks individually and, where appropriate, in aggregate.
- Consistently measures, monitors and communicates the level of risk for different risk types, expressed in qualitative and quantitative terms.
- Describes agreed parameters for the Group's performance under varying levels of financial stress relating to earnings, capital adequacy, leverage and liquidity ratios.
- Is considered in key decision-making processes, including business planning, mergers and acquisitions, new product approvals and business change initiatives.

The Group's risk appetite is stated qualitatively in terms of risk principles and risk preferences, and refers to the types of risk the Group actively seeks as well as those it accepts and avoids. In addition, the maximum amount of risk that the Group is prepared to accept to achieve its business objectives is defined using a range of quantitative metrics relating to capital adequacy, earnings volatility, liquidity and leverage. These are cascaded to the level of principal risk, legal entity and business unit.

Group quantitative risk appetite metrics	Description
CET1 adequacy ratio (%)	The Group aims to have sufficient capital supply to remain within risk appetite and above minimum regulatory CET1 capital adequacy ratio post -management actions following a severe yet plausible stress.
Tier 1 adequacy ratio (%)	The Group aims to have sufficient capital supply to remain within risk appetite and above minimum regulatory tier 1 capital adequacy ratio post-management actions following a severe yet plausible stress.
Total capital adequacy ratio (%)	The Group aims to have sufficient capital supply to remain within risk appetite and above minimum regulatory total capital adequacy ratio post-management actions following a severe yet plausible stress.
Economic capital coverage (multiple)	The Group aims to have sufficient capital supply to remain within risk appetite and maintain an investment-grade credit rating post-management actions following a severe yet plausible stress.
CLR (%)	The Group aims to maintain credit losses in its portfolios within risk appetite following a severe yet plausible stress.
Earnings-at-risk (EaR) (%)	With 90% confidence, the reduction in the Group's pre-tax earnings will not exceed 80% following a severe stress event.
Leverage ratio (%)	The Group aims to remain within risk appetite and above regulatory minimum leverage ratio post-management actions following a severe yet plausible stress.
LCR (%)	The Group has sufficient high-quality liquid assets (HQLA) to survive a significant stress over a 30-day period.
NSFR (%)	The Group maintains a stable funding profile where available stable funding (ASF) is adequate to meet its required stable funding (RSF).

3. Risk management overview

Group qualitative risk appetite statement

The Group's qualitative risk appetite statement provides a high-level perspective on what the Group considers the most important risk themes impacting its aggregate risk profile. It provides guiding principles on the risk that the Group actively seeks, risks that arise because of being in business and risks that should be avoided.

Risk theme	Qualitative statement
Business and strategy	• Focus risk-taking on activities and business engagements that are core to the business strategy. This includes products, customer segments and geographies as they relate to the Group's deposit taking, lending, transacting, trading, advisory, insurance and investment businesses. • Pursue risk-taking through activities that the Group understands and has the requisite skills and capabilities to manage. Continue to enhance the Group's skills and capabilities in line with emerging opportunities, trends and changing markets. • Minimise strategic drift in pursuing business objectives by proactively monitoring and timeously responding to material deviations from planned outcomes. This risk appetite statement takes cognisance of the continuous change in the business environment and emerging opportunities. Maintain alignment to strategy while ensuring that the strategy remains supportive of the Group's growth objectives, risk preferences and stakeholder value creation.
People and leadership	• Recruit, develop and train an appropriate level of skilled and capable human capital in line with an effective operating model design for resourcing, supporting systems, diversity and performance. • Align remuneration to support the delivery of strategic objectives and the efficient usage of financial resources in accordance with approved risk appetite. • The Group has no tolerance for any form of discrimination or prejudicial treatment based on age, culture, race, gender and disability, including harassment of any kind. • Leadership to set an example for a high-performing and values-based culture. • The Group has no tolerance for fraud by its employees and considers it unacceptable behaviour.
Data and technology	• Maintain robust systems and recovery capabilities to minimise disruptions to operations due to incidents relating to technology infrastructure, third-party service providers, fraud, financial crime, cybersecurity and data protection. • Protect the Group's infrastructure and customer assets as it pursues its digital strategy while maintaining robust and value-adding data management and processing capabilities. • Evaluate the technology landscape on a continuous basis to ensure the Group has a forward-looking view of existing and emerging market trends to which it must respond.
Capital adequacy	• Maintain capital adequacy at levels that enable the Group to continue doing business under severe yet plausible stress conditions within the Board-approved risk appetite. • Maintain capital levels above minimum regulatory requirements under a very severe stress event. • Allocate capital optimally to generate appropriate returns and ensure the Group does not unduly hold capital in excess of the approved risk appetite.
Funding and liquidity	• Maintain a healthy liquidity position by holding adequate but not excessive buffers of HQLA above minimum regulatory requirements. • Maintain the tenor composition of assets and liabilities at levels that ensure the sustainability of the Group's funding structure under business as usual and stressed conditions.
Concentrations	• Always maintain a well-diversified portfolio, while being cognisant of structural constraints that exist in specific markets in which the Group operates. Manage structural concentrations within approved risk appetite. • Conduct risk-taking activities in a manner that optimises concentrations in industries, sectors, products, counterparties, maturity, funding base, countries, types of collateral and credit protection providers.
Earnings volatility	• Maintain diversified sources of earnings through an economic cycle to ensure sustainable shareholder value creation. • Manage risk-taking activities within the Board-approved risk appetite for earnings volatility under business as usual and stressed conditions.
Conduct, legal and reputation	• Minimise the risk of our customers being harmed, or the integrity and stability of the market. • Regularly assess our customer engagement model to ensure we deliver on our customer-centric principles. • Always uphold a satisfactory level of employee conduct and ethical behaviour when executing activities on the Group's behalf. • Always comply with regulatory requirements and other laws to which the Group and its subsidiaries are bound. • Maintain business activities and processes that uphold the Group's reputation, brand and franchise value.
Environmental	• Continuous assessment of the suitability of the Group's products and customer value propositions against changing environmental factors, while continuing to fulfil its role of growing the economy in a sustainable and responsible manner.

Additional qualitative statements and risk appetite metrics relevant for the risk types, legal entities and business units are defined to align strategy execution and support the Group's defined risk appetite.

3. Risk management overview

3.3.2 Stress testing

Stress testing and scenario analyses are key elements of the Group's integrated planning and risk management processes. Through the use of stress testing and scenario analyses, the Group is able to assess the performance and resilience of its business in the expected economic environment. The Group is also able to evaluate the potential impact of adverse economic conditions, using and applying the information in the process of setting risk appetite.

Stress testing is conducted across all banking legal entities, business units, risk types and at Group level. This is supported by a framework, policies and procedures, adhering to internal and external stakeholder requirements. These are benchmarked against global best practice.

Management and the Board review stress testing results. The results inform several internal and regulatory reports, including the Group's internal capital adequacy assessment process (ICAAP) and the recovery plan. Additionally, the Group performs *ad hoc* stress tests for internal and regulatory purposes to inform strategic and risk decisions and assist the regulator in testing the resilience of the South African financial system. These are based on stress scenarios at varying degrees of severity and applying various projection techniques.

Over the reporting period, the Group's stress testing programme primarily focused on identifying and measuring multiple probable downside risks and scenarios relating to the short-term and long-term effects of the Covid-19 pandemic on the performance and resilience of the Group's operations. This entailed analysing possible adverse impacts across financial and non-financial risks, as well identifying a suite of executable management actions suited for each scenario path.

The Group performs the following stress tests:

Type of exercise	Purpose	Scenario type	Approach	Frequency
Internal enterprise-wide stress testing	Evaluates the impact of changing market variables on business decisions (e.g. financial, capital and funding implications).	Based on a range of plausible macroeconomic scenarios ranging from mild to severe stresses.	Largely bottom-up approaches, with specific risks being tested through top-down approaches.	At least annually
Supervisory stress testing	Evaluates the impact of regulator determined scenarios on key regulatory measures (e.g. capital, liquidity and operational targets and metrics).	Based on macroeconomic scenarios provided by regulatory authorities.	The approach taken varies based on regulatory scenarios. However, it is largely a top-down approach focusing mainly on an asset class, legal entity or Group-wide stress assessment.	As directed by the Regulator
Risk type and *ad hoc* stress testing	Typically evaluates sensitivity of a specific risk type, combination of risk types, business line, portfolio or legal entity to a single shock or multiple shocks.	Based on a combination of internally determined use case scenarios ranging from mild to severe stress scenarios and idiosyncratic risks.	Largely top-down approaches used.	*Ad hoc*
Reverse and business model stress testing	Assists the Group in understanding key risks and scenarios that may put business strategies and the Group's ability to remain a going concern at risk, as well as understanding the effectiveness and credibility of proposed recovery actions.	Based on extremely severe stress scenarios that would result in the bank reaching a 'point of failure' without implementing any recovery actions.	Largely top-down approaches used.	Annually

3.4 Risk process

The risk management process follows a three-step approach, namely evaluate, respond and monitor (the E-R-M process). This enables management to identify and assess risks, determine the appropriate risk response, and then monitor the effectiveness of the risk response and any changes to the risk profile. The analysis is used to promote an efficient and effective approach to risk management.

This three-step risk management process:

- Can be applied to every objective at every level across the Group.
- Is embedded into business decision-making processes.
- Guides the Group's response to changes in the external or internal environment.
- Involves all colleagues and all three lines of defence.

The three-step E-R-M process is employed as follows:

Risk management process	
Evaluate	• Communicating and consulting with appropriate external and internal stakeholders in and throughout all steps of the risk management process. Communication seeks to promote awareness and understanding of risk, and consultation involves obtaining feedback and information to support decision-making. • Defining the scope, context and criteria, customising the risk management process and enabling effective risk assessment (identification, analysis or evaluation) and risk treatment. • Clearly identifying the objective(s) being assessed, and the events or circumstances that could cause a delay or failure to meet the objective(s) in full, including the external environment (e.g. economy or competitive landscape), internal environment (people, process or infrastructure), and touchpoints between the Group and its customers, suppliers, regulators and other stakeholders. • Using appropriate tools for identifying risks such as interviews, surveys, self-assessments, workshops, audit findings, industry benchmarking, review of prior loss events, critical path analysis, and challenging assumptions and dependencies by developing contrary views and positions and using expert judgement. • Calibrating and measuring risks in terms of impact, probability and speed of onset (where the use of models must adhere to set principles). • Categorising risks (preventive, strategic or external) and matching them to an appropriate risk management model/system. Assessing risks based on inherent and residual risks.

3. Risk management overview

Risk management process	
	• Analysing the root causes of identified events and circumstances, the underlying sources of risk, and the cause -and -effect relationships. • Investigating the relationships and interactions between risks, compounding effects, correlations, concentrations and aggregations. • Ranking risks and taking an overall portfolio view of them to determine priorities.
Respond	• Determining the appropriate risk treatment, which is an iterative process of formulating and selecting risk treatment options, planning and implementing, assessing the effectiveness, deciding whether the remaining risk is acceptable, and taking further action if needed. • Embedding controls into the business activity/process and automating controls wherever possible, e.g. as they may apply to preventive risks. Considering the implications of control failures, and whether secondary or latent controls should be deployed in the case of material risks. • Debating/discussing strategic risks to determine cause and effect with appropriate responses. • Reviewing and redesigning stress/scenario testing in response to the development of new/unanticipated external risks. • Complying with all relevant laws and regulations and focusing on priority risks first. • Looking for a response that might mitigate more than one risk and extend or replicate existing controls if appropriate. Considering any unintended consequences, e.g. mitigating actions taken to control one risk could introduce other risks or undermine existing controls. • Significant risk events undergo an independent root cause analysis.
Monitor	• Establishing monitoring and review processes to assure and improve design, implementation and outcomes. • Establishing recording and reporting processes to provide information for decision-making and improve management activities. • Focusing on progress towards objectives, using key performance indicators (KPIs) to identify objectives that require further attention. • Analysing current and evolving risk profiles and risk trends, using key risk indicators (KRIs) to understand changes in the risk environment, proactive monitoring of new risks that might impact objectives (e.g. horizon scanning and scenario analyses), and monitoring changes in risk materiality, frequency and impact, and the appropriateness of existing responses. New risk evaluations should be initiated if necessary. • Ensuring risks are maintained within set limits (refer to the risk appetite section on page 18), and that this remains appropriate as circumstances and objectives evolve. • Checking that controls are functioning as intended and remain fit for purpose: track performance using key control indicators (KCIs), monitoring first-line activities to ensure these are operating within mandates, ensuring policies are routinely updated and standards have been implemented, and ensuring appropriate resources are being deployed. Monitoring includes assurance, control testing and conformance reviews. • Applying a combined assurance model to optimise overall assurance in the risk and control environment. • Where a risk event materialises assessing root causes, identifying possible control failures, identifying potential behavioural failures, considering whether better knowledge would have improved decision-making, and identifying what lessons could be learned for future assessments and management of risks. Control issues must be assigned clear ownership and timelines for resolution. • KPIs, KRIs and KCIs must adhere to set principles.

3.5 Risk architecture

3.5.1 Risk culture

The Board takes the lead in establishing the 'tone at the top' by promoting risk awareness in a sound risk culture. Executive leadership ensures a sound risk culture supports the Group's ability to operate consistently within its risk appetite, identify any desirable changes to the risk culture and ensure it takes steps to address those changes.

The purpose of risk management is the creation and protection of value. It improves performance, encourages innovation and supports the achievement of the Group's strategy.

Principles of effective risk management culture:

- Integrated – risk management is an integral part of all the Group's activities.
- Structured and comprehensive – a structured and comprehensive approach to risk management contributes to consistent and comparable results.
- Customised – the risk management framework and process are customised and proportionate to the Group's external and internal context related to its objectives.
- Inclusive – appropriate and timely involvement of stakeholders enables their knowledge, views and perceptions to be considered. This results in improved awareness and informed risk management.
- Dynamic – risks can emerge, change or disappear as the Group's external and internal context changes. Risk management anticipates, detects, acknowledges and responds to those changes and events appropriately and timeously.
- Best available information – the inputs to risk management are based on historical and current information, as well as on future expectations. Risk management explicitly considers any limitations and uncertainties associated with such information and expectations. Information should be timeous, clear, and available to relevant stakeholders.
- Human and cultural factors – human behaviour and culture significantly influence all aspects of risk management at each level and stage. The Group strives for ethical behaviour underpinned by the Absa Values.
- Continuous improvement – risk management is improved through ongoing learning and experience.

3. Risk management overview

3.5.2 The three lines of defence

The Group applies a three lines of defence model to govern risk across all businesses and functions. The ERMF assigns specific responsibilities to each line of defence.

All employees are responsible for ensuring the Group operates within its risk appetite. These responsibilities are defined in terms of the employee's role in the three lines of defence.

<table>
<tr><th colspan="3">Three lines of defence</th></tr>
<tr><th>1st line of defence</th><th>2nd line of defence</th><th>3rd line of defence</th></tr>
<tr><th>Business units</th><th>Risk and compliance functions</th><th>Internal audit</th></tr>
<tr><td>• Develop and implement standards and procedures.
• Propose and agree risk appetite and supporting limits with the second line of defence.
• Identify and manage risks in business activities in line with the approved appetite and agreed limits.
• Implement and maintain controls.</td><td>• Framework and policy development and conformance.
• Independent review and challenge of business units' risk appetite, underlying limits and profiles.
• Operate as centres of excellence for specified risk types.
• Analyse and monitor risk information
• Establish and operate proper governance.</td><td>• Internal audit provides independent assurance to the Board and executive management over the effectiveness of governance, risk management and control over current, systemic and evolving risks.</td></tr>
<tr><td colspan="3">All three lines of defence support coordinated, effective and efficient combined assurance.</td></tr>
</table>

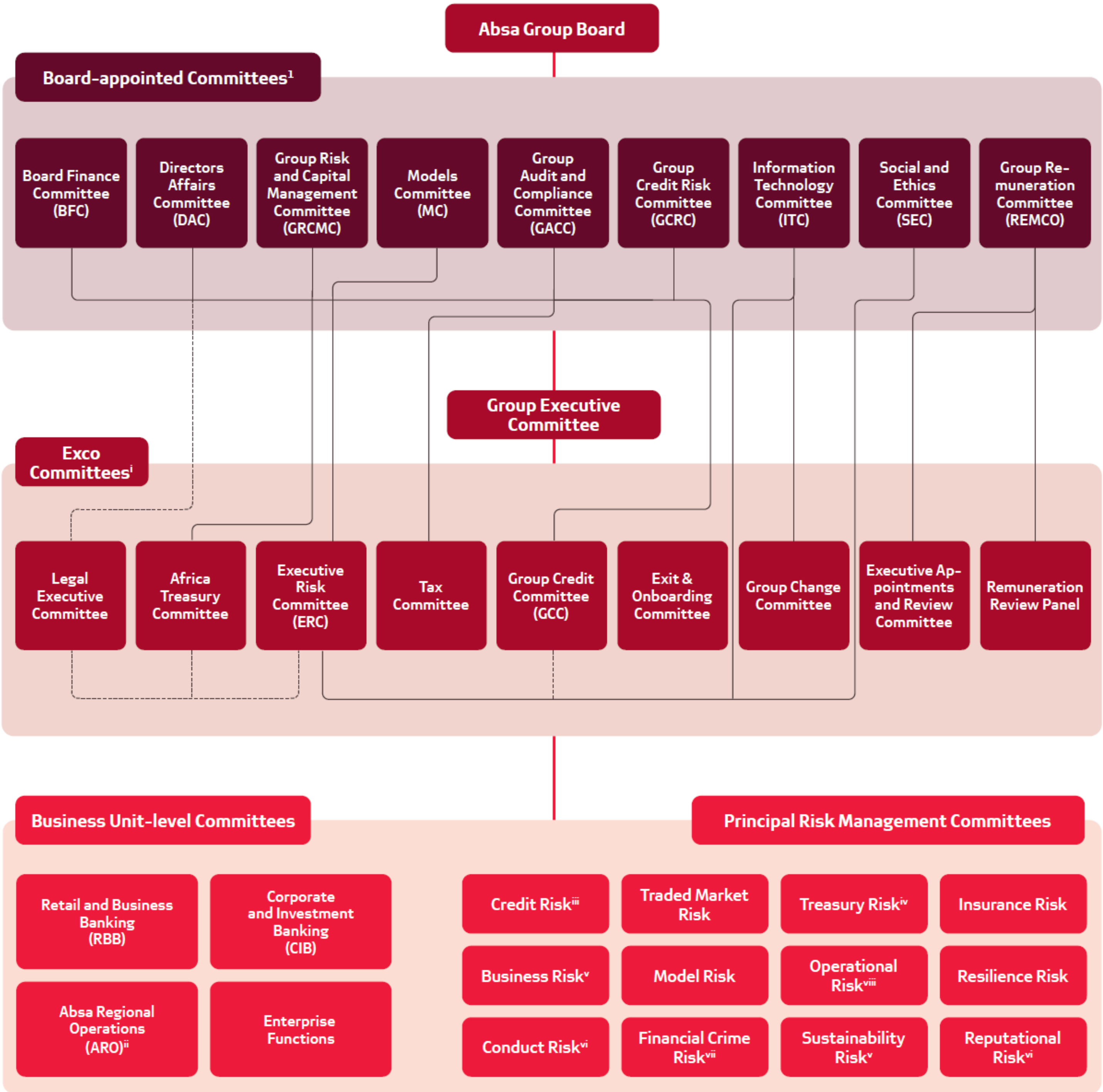
Regardless of their function, all teams who manage processes in the Group are responsible for designing, implementing, remediating, monitoring and testing the controls for those processes.

3. Risk management overview

3.5.3 Governance

The Group Board is supported by several committees at Board, executive, business and function levels. The diagram below depicts the risk-related committees. ARO risk governance structures are compatible with the Group and comply with in-country regulations.

Risk governance structure



—— Direct reporting line
------ Indirect reporting line

i Including non-risk Exco committees: Regulatory Investigations Oversight Committee and Group Investment Committee.
ii Including in country Exco committees: Country Management Committee (CMC).
iii Credit risk, managed the through business unit credit committees, Group ERC and Group Credit Committee (GCC).
iv Treasury risk, managed through Africa Treasury Committee (ATC).
v Sustainability risk and business risk, managed through Group ERC.
vi Conduct risk and reputational risk, managed through Market Conduct Steerco.
vii Financial crime risk, managed through Financial Crime Oversight Committee (FCOC).
viii Operational risk, GRCMC is responsible for risk management matters and GACC is responsible for control environment matters.

3. Risk management overview

The main risk-related responsibilities of the Board-appointed committees are as follows:

Committees	Key risk focus areas	Principal risk covered
GRCMC	Risk, risk appetite, all elements of the ERMF, capital, funding and liquidity management.	• Credit risk • Traded market risk • Treasury risk • Insurance risk • Business risk • Model risk • Operational risk • Resilience risk • Conduct risk • Financial crime risk • Reputational risk • Sustainability risk
Models Committee (MC)	Approval of material models and model governance oversight.	• Model risk
Group Audit and Compliance Committee (GACC) (includes Disclosure Committee)	Internal controls, compliance, internal and external audit, accounting and external reporting.	• Operational risk • Financial crime risk
Group Credit Risk Committee (GCRC)	Approval of large single-name exposures and material country risk limits, credit portfolio oversight, consideration and management of emerging risks and material concentrations.	• Credit risk
Information Technology Committee (ITC)	IT systems, data, architecture and innovation, resilience and return on investment.	• Resilience risk
Social and Ethics Committee (SEC)	Conduct, sustainability, stakeholder management, corporate citizenship, ethics, labour, diversity and inclusion, and general human resources and talent management matters.	• Conduct risk • Sustainability risk • Operational risk
Group Remuneration Committee (RemCo)	Remuneration and incentive arrangements, policy and disclosures, executive appointments and succession.	• Operational risk
Directors Affairs Committee (DAC)	Assists in corporate governance including composition of Board, the induction and director training; effectiveness evaluation of the Board, and considering matters of regulatory and reputational risk	• Reputational risk

3.5.4 Combined assurance

The Group adheres to the combined assurance model, as outlined in Principle 15 of the King IV Report on Corporate Governance™ for South Africa 2016[1]. Combined assurance is a coordinated activity that aligns and integrates assurance work across the Group's three lines of defence. It includes external assurance providers, maintaining segregation of duties, and the efficient and effective management of the Group's control environment. This ensures optimal coverage over the material risks that the Group is exposed to. Combined assurance is integrated to daily business decisions and activities.

Each business is expected to:

- Drive the coordination of assurance activities across the three lines of defence by implementing effective governance and oversight processes.
- Demonstrate adequate risk and control coverage over critical processes, material control issue remediation and strategic change initiatives as requested by senior management, Board and regulatory requests.
- Demonstrate appropriate remedial responses to the identification of unacceptable residual risk exposure and control issues.

Combined assurance coverage, plans and reports are monitored at business and functional levels, and the ERC and the GACC report these to Exco and Board respectively.

3.5.5 Frameworks, policies and standards

The Group's policy hierarchy delivers a consistent approach across the Group:

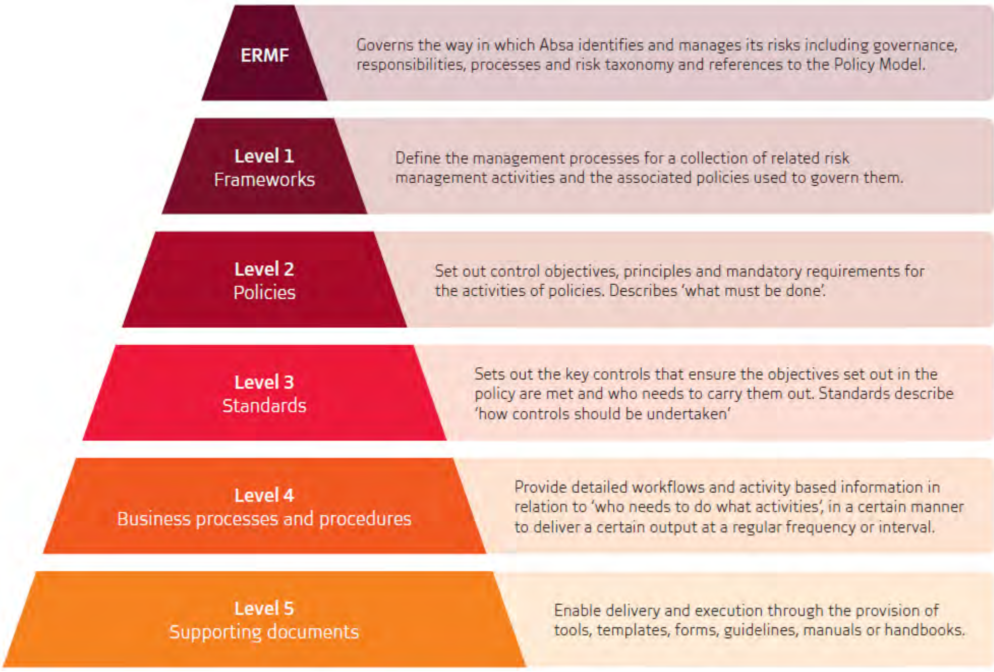
- Defining and implementing Group-wide frameworks, policies and standards.
- Limiting variation from Group minimum requirements and policy to circumstances where specific jurisdictional legal or regulatory requirements apply.
- Mandating alignment of governance documentation to the requirements and definitions of the hierarchy.

This drives consistency and efficiency, and enables enhanced aggregation, risk oversight across the businesses and improved line of sight to all levels of management.

[1] Copyright and trademarks are owned by the Institute of Directors in South Africa NPC and all of its rights are reserved.

3. Risk management overview

The hierarchy has five tiers, with each level cascading from the level above. The degree of granularity and specific requirements increases as the levels descend.



- ERMF and **frameworks** include risk appetite and stress testing, as well as the 12 principal risks. These describe the high-level Group-wide approach for a specific risk and are mandatory for each of the principal risks identified in the ERMF. Frameworks also outline the risk and policy taxonomy that enables proper management and governance of the principal risk.
- **Policies** set out the control objectives, principles and other core requirements for the organisation's activities. Policies explain what businesses, functions and legal entities need to do, rather than how they need to do it.
- **Standards** set out the key controls that ensure policy objectives are met, and people responsible for them. Standards describe how the policy objectives will be met in a particular entity, business or function.

Ownership and approval

All frameworks and policies are owned by Group and standards are owned by the business unit or function responsible for performing the described activity.

The Board or mandated Board sub-committee approve the principal risk frameworks. Policies are approved either by committees or individuals, as determined by the PRO.

Frameworks, policies and standards are subject to at least an annual review.

3.5.6 Data

3.5.6.1 Risk data

Internal and external data is utilised in meeting regulatory requirements and the management of risk. The Group enters into selected data and analytics partnerships with third parties to enhance and heighten its understanding of customers. Internal data is owned and managed by the respective business units with regular assessment of data quality via their respective risk governance structures. All key datasets are subject to the requirements of the Group's data and records management policies and standards.

3.5.6.2 Risk reporting

The objective of risk reporting is to provide timeous, accurate, comprehensive and useful information to the Board and senior management to facilitate informed decision-making. Board and senior management risk committees determine their requirements in terms of content and frequency of reporting under both normal and stressed conditions. Risk reporting processes flow from the business unit and relevant risk committees to the ERC and thereafter to Board committees. The content and level of aggregation are adjusted to suit the needs of each committee. Risk reports typically contain the following key information:

- Monitoring and management of the risk profile and key risk metrics per risk type against risk appetite and forecasts, including trend analysis.
- Monitoring of emerging risks and changes in the environment with an assessment of the potential impact on the Group.
- Results of stress testing exercises to assess the adequacy of financial resources and the Group's sensitivity to stresses.
- An assessment of the risk governance profile, including an assessment of the degree to which risk frameworks and policies are implemented throughout the Bank and assurance activities.

3.5.6.3 Risk data aggregation and risk reporting (RDARR)

The BCBS published the regulations (BCBS 239) pertaining to the principles for RDARR in 2013. The Group's risk data aggregation capabilities and risk reporting practices are aligned with the principles of BCBS 239.

3. Risk management overview

3.5.7 Models

Model risk is a principal risk to be managed under the ERMF, with specific guidelines set out in the Model Risk Management Framework, model risk appetite statement, Group model risk policy (GMRP) and relevant standards covering model ownership, development, approval, implementation, monitoring and validation.

3.5.8 Technology

IT is an essential enabler for enterprise risk management practices. Technology solutions present ongoing opportunities to create, sustain and deliver value to the business. The technology solutions include:

- Data collection and analysis
- Risk analysis and modelling
- Risk assessment, control and monitoring
- Risk reporting and insights

The risk technology capabilities are focused on integration of technologies such as Big Data analytics, cloud computing, enterprise risk management applications and parallel processing platforms. Greater advantage has been gained from capturing, extracting, transforming and using legacy databases to perform risk assessments, stress tests and risk scenario analyses. The IT evolutions have a significant impact on the way the organisation tracks and manages risks.

3.6 Principal risks

The ERMF includes risks taken by the Group that are foreseeable and material enough to merit establishing specific Group-wide control frameworks. These are grouped into 12 principal risks[1] that account for the vast majority of the total risk faced by the Group.

- Financial principal risks
  - Credit risk
  - Traded market risk
  - Treasury risk
  - Insurance risk[1]
  - Business risk[1]
  - Model risk
- Non-financial principal risks
  - Operational risk
  - Resilience risk
  - Conduct risk[1]
  - Financial crime risk
  - Reputational risk[1]
  - Sustainability risk[1]

The Board annually reviews and approves the ERMF on recommendation by the GRCMC. In its latest design review, the ERMF was amended to define financial crime, reputational and sustainability risks as principal risks in recognition of their significance to the Group's strategic ambitions. The addition of sustainability risk indicates the Group’s commitment to manage environmental, social and climate change risks.

The Group Chief Executive grants authority and responsibility to the GCRO to ensure the principal risks are managed under appropriate risk control frameworks and within the Board-approved risk appetite and risk budget.

Individual events may entail more than one principal risk. For example, internal fraud by a trader may expose the Group to operational and market risks and many aspects of conduct risk.

Credit, traded market, treasury, business, insurance and model risks are collectively known as financial principal risks. The remaining risks are referred to as non-financial principal risks.

This is not an exhaustive list of risks the Group is subject to. For example, the Group is also subject to political and regulatory risks in the jurisdictions where it operates. While these may be consequential and are assessed in the Group’s planning and decision-making, they are not considered principal risks. However, these other risks are subject to this framework and oversight by risk management.

The GCRO is accountable for ensuring frameworks, policies and associated standards are developed and implemented for each of the principal risks and that they are subject to limits, monitored, reported on and escalated as required. The Chief Compliance Officer is accountable for conduct, financial crime and reputational risks.

[1] For more information on the 12 principal risks, refer to the credit, traded market, treasury, operational and model risks sections. For details on insurance, business, resilience, conduct, financial crime, reputational and sustainability risks, refer to the risk management section of the financial booklet.

4. Credit risk

4. Credit risk

Credit risk is the risk of suffering financial loss due to a borrower, counterparty to a derivative transaction, or an issuer of debt securities defaulting on its contractual obligations. [CRA]

4.1 Review of current reporting period

Key risk metrics	2020	2019
CLR (%)	1.92	0.80
Stage 3 ratio on gross loans and advances (%)	6.3	4.7
Stage 3 coverage ratio (%)	42.5	43.7
Stage 1 and stage 2 coverage ratio (%)	1.7	1.1
Total coverage ratio (%)	4.5	3.3
Performing book weighted average probability of default (PD) (%)[1]	2.4	2.4
Weighted average loss given default (LGD) (%)[1]	30.7	30.5
Total credit risk weighted assets (RWA) (Rbn)	714.3	672.7
Primary credit risk RWA (Rbn)[2]	668.1	632.9
CCR RWA (Rbn)[3]	34.9	27.8
Equity risk RWA (Rbn)	11.3	12.0

- The Covid-19 pandemic continues to affect global economic developments and has resulted in significant changes to government policies and actions, economic and financial market conditions as well as consumer behaviour. To support customers, the Group implemented various payment relief programmes. These programmes reduce or defer monthly instalments and assist with cash flow needs (the extent of the relief per portfolio is detailed in the Covid-19 section of the Financial Results Booklet). These portfolios were ring-fenced to ensure heightened credit monitoring after relief measures expire.
- Gross loans and advances to banks and customers increased to R1 058bn (2019: R1 006bn) supported by broad-based book growth in the first quarter. This changed with the advent of the Covid-19 pandemic and the slowdown in credit demand. The strategic focus shifted to supporting the Group's clients, while preserving capital and liquidity, and managing the credit risk in the existing book.
- Despite the gradual restoration of economic activity towards the end of 2020, credit demand remained muted in the second half of the year, with the exception of growth in RBB secured lending products off the back of cumulative demand and historically low interest rates. The contraction in loans and advances to banks and customers in H2 2020 was further amplified by a reduction in secured finance transactions in the markets business, paring back of risk in the ARO portfolio and an adverse foreign currency translation effect as the Rand strengthened significantly against emerging market peers.
- CLR increased to 1.92% (2019: 0.80%). This is well above the through-the-cycle (TTC) range of 75-100 basis points (bps). The impairment charge of R20.6bn (2019: R7.8bn) reflects:
  - A material judgemental adjustment raised in terms of IFRS 9 for the deterioration of forward-looking macroeconomic variables.
  - The impact of elevated stage 2 exposures due to increased arrears and a significant increase in credit risk.
  - An increase in specific impairments due to growth in non-performing loans as the impact of the Covid-19 pandemic on the economy weighed on consumers. This was supplemented by the impairment of single-name exposures.
- The total coverage ratio was higher at 4.5% (2019: 3.3%) reflecting the adjustment for the deterioration of the forward-looking macroeconomic variables and an unfavourable change in staging mix due to growth in stage 2 and stage 3 credit exposures.
- The stage 3 ratio on gross loans and advances increased to 6.3% (2019: 4.7%). The prolonged lockdown and expiry of various payment relief programmes resulted in increased delinquencies and higher non-performing loans.
- Primary credit risk RWAs[2] increased to R668.1bn (2019: R632.9bn) mainly driven by:
  - A deteriorating portfolio construct due to increased delinquencies and a deterioration in asset quality, particularly in relation to small and medium enterprises and specific wholesale sectors.
  - Asset growth stemming from high-quality liquid assets (HQLA), uncommitted money market placements and secured lending products.
  - An increase in irrevocable debt facilities extended to corporate clients. However, utilisation remained low as the liquidity position of these counterparties improved following the easing of Covid-19-related restrictions.

  This was partially offset by:
  - The foreign currency translation effect as the Rand strengthened significantly against emerging market peers.
  - A favourable change in asset composition driven by growth in HQLA and loans and advances to banks.
  - The sale of the Edcon card book.
- CCR RWAs increased to R34.9bn (2019: R27.8bn) mainly due to mark-to-market gains recognised on foreign exchange derivatives.

[1] The percentages include only portfolios subject to the internal ratings-based (IRB) approaches.
[2] Primary credit risk RWA includes credit risk (excluding counterparty credit risk (CCR)) and securitisation exposures in the banking book
[3] CCR RWA includes credit valuation adjustment (CVA).

4. Credit risk

4.2 Priorities

- Proactive management of the downside risk presented by an uncertain outlook and a slow recovery with the objective of bringing the CLR to within the TTC range of 75-100bps in the medium term.
- Proactive management of sectors and companies in distress because of the economic downturn.
- Evolution of the payment relief strategy to support clients on a bespoke basis, tailored to their unique situation.
- Maintain a diversified credit portfolio in terms of key concentration dimensions, such as individual counterparties, geographies, industries, products and collateral, in accordance with the Group's strategy and risk appetite.
- Talent development and succession planning – ensuring a fully capacitated and suitably skilled credit team.
- Focus on regulatory change, specifically the rollout of a standardised CCR capital approach and Basel III enhancements to capital rules for credit risk.
- Enhanced collections capabilities to effectively manage the back-book risk.

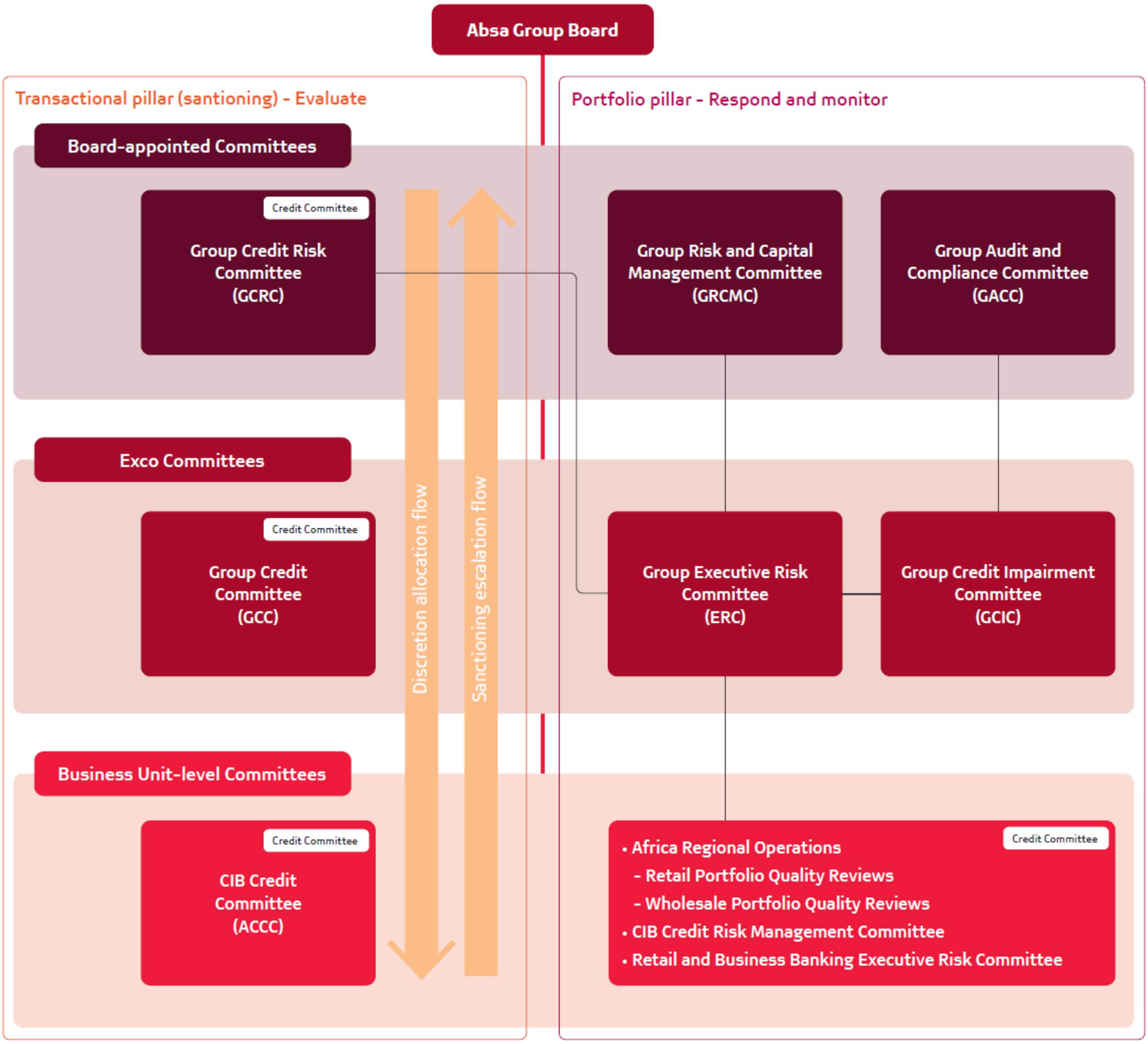
4.3 General information about credit risk

4.3.1 Risk identification and risk management

Credit risk is managed as a principal risk in accordance with the ERMF and the Credit Risk Management Framework (CRMF) and its associated policies. The risk management process is structured into three elements, being evaluate, respond and monitor. This enables management to identify and assess risks, determine the appropriate risk response, and then monitor the effectiveness of the risk response and any changes to the risk profile. This process is used to promote an efficient and effective approach to risk management.

4.3.2 Governance

The credit risk management and control function consists of committees at Board, executive management and business unit levels. The key committees involved in the governance of credit risk are depicted below:



4. Credit risk

- **Credit oversight:** The GCRC is the primary Board committee responsible for credit risk oversight covering an evaluation of the overall health of the credit portfolio, emerging risks and material concentrations in the credit portfolios. The business unit committees:
  - Provide strategic risk management leadership and act as second line functions of independent oversight and monitoring of credit risk as it relates to the specific business unit.
  - Oversee the credit risk profile to ensure it remains within the approved risk appetite.
  - Consider actions for business unit conformance reviews and controls testing results, outstanding audit items, regulatory issues, and risk events relating to credit risk.
- **Sanctioning:** The GCRC is the ultimate credit sanctioning authority in the Group, responsible for the approval of single-name exposures that exceed 10% of the Group's qualifying capital and reserves (large exposures), irrespective of risk grade or material country risk limits. The GCC is a Group Executive sub-committee mandated to opine on credit applications in respect of aggregate total financing limits up to 10% of the Group's qualifying capital and reserves irrespective of risk grade.
- **Risk oversight:** The ERC is accountable for the oversight of the enterprise-wide risk profile of the Bank. It considers and agrees risk appetite, stress testing scenarios, limits and triggers, and makes appropriate recommendations to the Board and Board sub-committees for review and/or approval. It is also responsible for the review and reporting of risk appetite consumption against forecasts, the Absa strategy and the risk appetite limits as approved by the Board.

4.3.3 Reporting

The PRO is responsible for the following Board-level reporting:

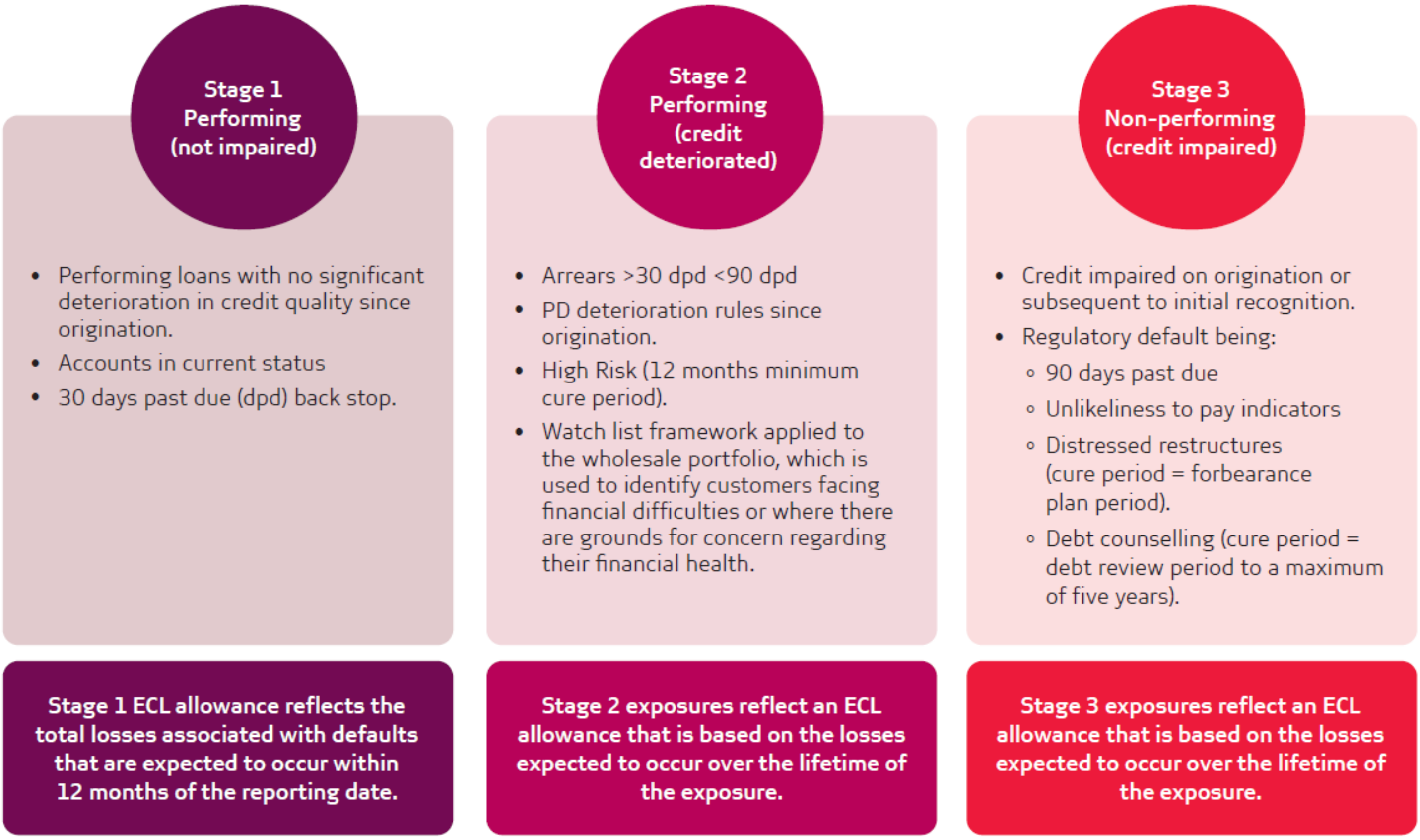
- Table an overview of the Bank's credit portfolio at senior management and Board sub-committees (Group ERC and GCRC) levels, which should include an evaluation of the overall health of the credit portfolio, emerging risks and material concentrations in the credit portfolios. Reporting provides key insights into developing industry, sector and product trends and incorporate agreed management actions to modify behaviour and strategy in accordance with specific findings.
- Provide a comprehensive impairment update to the GACC.
- The GCRO presents the Group's credit risk profile to the GCRC.

Monitoring and reporting is performed at a Group and business area level and includes the following:

- Current state of the credit portfolio as measured through the relevant metrics, and changes to the credit risk position with reference to an outlook based on a relevant forecast horizon;
- Risk appetite utilisation above the limit and/or trigger level on a current or forecast basis for all key risk metrics; and
- Management actions in response to any emerging issues, developments and breaches of risk appetite triggers and limits.

4.3.4 Credit quality of assets

Various regulatory and accounting terms are used to refer to assets that are not performing as expected at the time of origination. The diagram below depicts these terms.



4. Credit risk

The age analysis of credit exposures [CRB(i)]

The following tables provide the age analysis of the Group's loans and advances, debt securities and off-balance sheet items. In the tables defaulted exposures represent stage 3 exposures, non-defaulted exposures are the sum of stage 1 and stage 2 gross loans and advances, and allowances/impairments are total expected credit loss allowances.

Credit quality of assets [CR1]

	a	b	c	d
	2020			
	Gross carrying values of			Net values
	Defaulted exposures Rm	Non-defaulted exposures Rm	Allowances/impairments Rm	(a+b-c) Rm
1 Loans	66 487	990 663	43 696	1 013 454
2 Debt Securities	-	148 799	-	148 799
3 Off-balance sheet exposures	-	233 911	-	233 911
4 Total	66 487	1 373 373	43 696	1 396 164

	a	b	c	d
	2019			
	Gross carrying values of			Net values
	Defaulted exposures Rm	Non-defaulted exposures Rm	Allowances/impairments Rm	(a+b-c) Rm
1 Loans	46 994	960 352	29 761	977 585
2 Debt Securities	-	116 975	-	116 975
3 Off-balance sheet exposures	-	241 412	-	241 412
4 Total	46 994	1 318 739	29 761	1 335 972

Assets are classified as defaulted when the Group considers that the obligor is unlikely to pay its credit obligations without recourse by the Group to actions such as realising security. Elements that indicate unlikeliness to pay include:

- The Group consents to a distressed restructuring/forbearance of the credit obligation where this is likely to result in a diminished financial obligation caused by the material forgiveness of principal, interest or fees;
- The customer is under debt review, business rescue or similar protection;
- Advice is received of customer insolvency or death; or
- The obligor is 90 days or more past due on any credit obligation to the Group.

In addition, within the retail portfolios:

- All accounts of forbearance are treated as being in default, regardless of whether the restructure led to a diminished financial obligation or not; and
- The Group requires an exposure to reflect at least 12 consecutive months of performance to be considered to have been cured from stage 3. This probation period applies to all exposures, including those that may have been classified as defaulted for reasons other than forbearance and debt review (e.g. owing to the fact that they become more than 90dpd).

The table below depicts the statutory non-performing loans (NPLs) and debt securities and the main drivers of the change. [CR2]

	a		
	31 Dec 2020	30 Jun 2020	31 Dec 2019
	Defaulted exposures Rm	Defaulted exposures Rm	Defaulted exposures Rm
1 Defaulted loans and debt securities at end of the previous reporting period	61 474	46 994	47 167
2 Loans and debt securities that have defaulted since the last reporting period	14 793	21 241	23 327
3 Returned to non-defaulted status	(2 577)	(3 350)	(7 417)
4 Amounts written off	(4 654)	(2 761)	(8 932)
5 Other changes	(2 549)	(650)	(7 151)
6 Defaulted loans and debt securities at end of the reporting period	66 487	61 474	46 994

Growth in default exposures reflects increased customer pressure due to the impact of the Covid-19 pandemic on the economy. The prolonged lockdown and expiry of various payment relief programmes resulted in increased delinquencies and higher non-performing loans.

The Group has an established framework and related processes to govern its approach to credit risk management and any resultant impairment of financial assets. Refer to note 1.2.1 of the consolidated and separate annual financial statements for the reporting period ended 31 December 2020 for further detail.

4. Credit risk

Restructured exposures (impaired versus not impaired) [CRB(ii)]

	2020			2019		
	Gross carrying values of			Gross carrying values of		
	Total Rm	Impaired[1] Rm	Not Impaired Rm	Total Rm	Impaired[1] Rm	Not Impaired Rm
Total restructured exposures	222 043	11 920	210 123	14 862	11 733	3 129

A loan restructure (modification) is a permanent change to one or more of the loan terms. Enforcing or adopting terms that were present in the original terms of the facility is not a modification. The treatment of a renegotiation or modification of the contractual cash flows of a financial asset depend on whether the modification is done for commercial reasons or because of financial difficulty of the borrower.

Contractual modifications on commercial terms are treated as a new transaction resulting in derecognition of the original financial asset and the recognition of a 'new' financial asset. Any difference between the carrying amount of the derecognised asset and the fair value of the new asset is recognised in profit or loss.

When the Group modifies the contractual conditions due to financial difficulties of the borrower, the asset is not derecognised unless the terms of the contract are substantively changed (such as the inclusion of an equity participation or a substantial change in counterparty). If the asset is not substantially modified, the gross carrying amount of the financial asset is recalculated to be the present value of the modified cash flows discounted at the original effective interest rate and any gain or loss is recognised in profit or loss as part of the total impairment loss.

The growth in restructured exposures mainly relates to the implementation of payment relief programmes across segments from March 2020 for eligible customers, allowing customers requiring short-term financial relief, to reduce or defer their monthly instalments to assist with cash flow needs. In anticipation of credit-risk induced pressure on banks' capital, temporary dispensation has been provided by the Prudential Authority at the South African Reserve Bank in relation to relief initiatives where those measures are regarded as short-term liquidity solutions. This dispensation provides that these restructures are not classified as distressed restructures for regulatory purposes, provided that the customers remain up to date once their relief period ends. Once payment relief ends, the Group's existing credit policies continue to apply.

Refer to the impact of Covid-19 section in the Financial Results Booklet for more information.

Exposures by geography [CRB(iii)]

	2020			
	Total exposure Rm	Non-performing loans Rm	Specific impairments Rm	Write-Offs Rm
South Africa	1 153 919	59 312	24 493	6 305
Other African countries	296 149	7 175	3 752	1 110
Europe	29 175	-	-	-
North America	9 254	-	-	-
Asia	17 040	-	-	-
South America	392	-	-	-
Other	6 918	-	-	-
Total	1 512 847	66 487	28 245	7 415

[1] Regulatory definition of impaired.

4. Credit risk

	2019			
	Total exposure Rm	Non-performing loans Rm	Specific impairments Rm	Write-Offs Rm
South Africa	1 131 047	41 387	17 267	7 597
Other African countries	264 080	5 607	3 248	1 335
Europe	24 942	-	-	-
North America	7 547	-	-	-
Asia	5 644	-	-	-
South America	615	-	-	-
Other	5 552	-	-	-
Total	1 439 427	46 994	20 515	8 932

Exposures by industry [CRB(iv)]

	2020		
	Total exposure Rm	NPLs Rm	Specific impairments Rm
Agriculture, hunting, forestry and fishing	54 593	1 865	496
Business services	72 072	3 444	2 084
Community, social and personal services	105 379	101	28
Construction	17 643	1 900	522
Electricity, gas and water supply	41 055	537	25
Financial intermediation and insurance	182 865	597	152
Manufacturing	88 851	2 351	512
Mining and quarrying	33 257	1 035	74
Other	89 608	261	69
Private households	556 916	47 814	22 224
Real estate	108 241	2 309	892
Transport, storage and communication	53 345	1 844	455
Wholesale and retail trade, repair of specified items, hotels and restaurants	109 022	2 429	712
Total	1 512 847	66 487	28 245

4. Credit risk

	2019		
	Total exposure Rm	NPLs Rm	Specific impairments Rm
Agriculture, hunting, forestry and fishing	48 810	1 622	708
Business services	97 455	3 319	1 449
Community, social and personal services	82 994	74	32
Construction	18 285	751	328
Electricity, gas and water supply	36 503	9	4
Financial intermediation and insurance	139 512	182	79
Manufacturing	89 909	1 551	677
Mining and quarrying	36 125	73	32
Other	91 728	355	155
Private households	541 674	35 284	15 403
Real estate	102 955	1 619	707
Transport, storage and communication	47 387	639	279
Wholesale and retail trade, repair of specified items, hotels and restaurants	106 090	1 516	662
Total	1 439 427	46 994	20 515

Exposures by Basel asset class and maturity [CRB(v)]

	2020				
	Total exposure Rm	Current to 6 months Rm	6 months to 1 year Rm	1 year to 5 years Rm	More than 5 years Rm
Banks	94 778	51 013	15 943	24 200	3 622
Corporate	413 988	100 995	43 438	231 339	38 216
Local governments and municipalities	10 250	2 423	12	1 949	5 866
Public sector entities (PSEs)	23 987	7 059	2 337	8 443	6 148
Retail –- other	145 620	12 305	3 863	106 803	22 649
Retail mortgages (including any home equity line of credit)	317 935	31 698	995	24 371	260 871
Retail revolving credit	95 899	64 873	4 555	23 347	3 124
Securities firms	6 527	771	1 757	3 995	4
SME Corporate	170 777	78 972	14 315	53 622	23 868
SME Retail	27 378	15 728	1 203	5 247	5 200
Sovereign (including central government and central bank)	151 859	33 339	12 708	48 282	57 530
Specialised lending –- income producing real estate	28 319	11 220	1 910	13 611	1 578
Specialised lending –- project finance (PF)	25 530	1 186	734	9 971	13 639
Total	1 512 847	411 582	103 770	555 180	442 315

4. Credit risk

	2019				
	Total exposure Rm	Current to 6 months Rm	6 months to 1 year Rm	1 year to 5 years Rm	More than 5 years Rm
Banks	61 438	38 475	2 679	19 715	569
Corporate	426 949	105 682	32 612	261 694	26 961
Local governments and municipalities	11 109	2 156	9	3 652	5 292
Public sector entities (PSEs)	26 754	7 601	1 118	9 463	8 572
Retail – other	135 477	12 724	3 297	83 353	36 103
Retail mortgages (including any home equity line of credit)	300 599	32 519	1 020	18 362	248 698
Retail revolving credit	108 959	80 116	5 001	23 842	-
Securities firms	8 044	1 084	228	6 729	3
SME Corporate	160 092	83 563	12 572	45 107	18 850
SME Retail	24 824	14 911	539	4 704	4 670
Sovereign (including central government and central bank)	122 500	35 881	18 960	33 283	34 376
Specialised lending – income producing real estate	24 403	11 613	1 770	9 132	1 888
Specialised lending – project finance (PF)	28 279	1 434	1 817	15 106	9 922
Total	1 439 427	427 759	81 622	534 142	395 904

4.3.5 Measuring and the management of credit concentrations

Credit risk is accountable for the management of concentrations, or pools of exposures, whose collective performance could negatively affect the Group even if each individual transaction in a pool is soundly underwritten. When exposures in a pool are sensitive to certain economic or business correlations, that sensitivity, if triggered, may cause the sum of the transactions to perform as if it were a single, large exposure.

Credit concentration risk is managed from the following perspectives:

- **Large exposures and maximum exposure guidelines:** Reviews of large exposures to a single counterparty or group of counterparties are carried out in accordance with regulatory requirements. In addition to the regulatory requirements, a framework of internally derived maximum exposure guidelines informs risk appetite guideline levels to single counterparties or groups of counterparties.
- **Mandate and scale:** Mandate and scales are selected on the basis that they isolate segments of high loss volatilities (i.e. where loss rates increase disproportionately relative to the remainder of the portfolio in a stress environment) or where concentrations are considered significant.
- **Country risk:** Country risk is the risk of incurring a loss due to an obligor's cross-border obligations as a consequence of the implementation of capital controls (transfer risk) and/or as a result of a country event (e.g. adverse political and legal changes), or due to macroeconomic (jurisdiction risk) or environmental factors.

4.4 Credit risk mitigation (CRM) [CRC]

CRM is used to reduce the credit risk associated with an exposure, and consequently to reduce potential losses in the event of obligor default or other specified credit events. Collateral is applied internally to mitigate underwriting risk where appropriate, and externally for RWA and RC purposes, where eligible.

Risk mitigants are classified as either funded or unfunded collateral. Funded collateral includes financial collateral (i.e. cash/deposits), physical collateral (i.e. fixed property) and other such receivables. Unfunded collateral includes guarantees, set-off (where legally enforceable), risk participations and other.

Collateral is a secondary consideration for the protection of the Group's lending activities as and when applicable to the specific type of lending under consideration. The main underwriting consideration remains an assessment of the primary exit from the exposure based on a cash flow analysis.

Generally, one or more forms of CRM are used in the credit approval process. The use and approach to CRM varies by product type, portfolio, customer and business strategy. Minimum requirements are prescribed in policies and standards, and cover, inter alia, valuations, haircuts and any required volatility adjustments, conditions or restrictions, legal certainty, correlations, concentrations and other.

4.4.1 Valuation of collateral

The Group uses several approaches for the valuation of collateral that is not in a defaulted state, including physical inspection, an automated valuation model (AVM), desktop valuations, statistical indexing and price volatility modelling. Valuations are regularly refreshed, with the frequency of valuation reviews based on the specific collateral type.

Once an asset becomes non-performing, the following is triggered:

- In the wholesale portfolio, collateral valuations are updated and impairment risk assessed. These valuations and capital at risk are regularly reviewed to ensure impairments remain adequate.
- In the retail portfolio, mortgage asset valuations are updated using an AVM, and an indexing methodology is used for instalment sale assets. High-value property assets are valued through a physical valuation. Valuations are updated at least six-monthly.

The banking book collateral management process focuses on the efficient handling and processing of a large number of cases in the retail portfolio and the lower end of the corporate sector, therefore heavily relying on the Group's collateral and document management systems. For larger wholesale exposures and capital market transactions, collateral is jointly managed between the credit and legal functions as transactions and associated legal agreements are often bespoke in nature. All security structures and legal covenants are reviewed at least annually to ensure they comply with the credit risk requirement.

4. Credit risk

4.4.2 Types of guarantor and credit derivative counterparties

In the commercial, corporate and financial sector, reliance is often placed on a third-party guarantor, which may be a parent company to the borrower, a major shareholder or a bank. Similarly, credit derivative transactions are sometimes used to hedge specific parts of any single-name risk in the wholesale portfolio. For these transactions, the most common counterparties or issuers are banks, non-bank financial institutions, large corporates and governments. The creditworthiness of the guarantor or derivative counterparty/issuer is assessed as part of the credit approval process and the value of such a guarantee or derivative contract is recorded against the guarantor/issuer's credit limits.

Overview of CRM techniques employed by the Group [CR3]

The following table depicts the extent to which the Group uses collateral and financial guarantees to secure exposures and reduce capital requirements:

		a	b	c	d	e
		2020				
		Exposures unsecured: carrying amount Rm	Exposures secured by collateral Rm	Exposures secured by collateral of which secured amount Rm	Exposures secured by financial guarantees Rm	Exposures secured by financial guarantee, of which secured amount Rm
1	Loans	502 479	510 975	510 975	21 230	19 107
2	Debt securities	148 799	-	-	-	-
3	**Total**	**651 278**	**510 975**	**510 975**	**21 230**	**19 107**
4	Of which defaulted	32 326	34 161	-	-	-

		a	b	c	d	e
		2019[1]				
		Exposures unsecured: carrying amount Rm	Exposures secured by collateral Rm	Exposures secured by collateral of which secured amount Rm	Exposures secured by financial guarantees Rm	Exposures secured by financial guarantee, of which secured amount Rm
1	Loans	472 498	505 087	505 087	18 732	16 859
2	Debt securities	116 975	-	-	-	-
3	Total	589 473	505 087	505 087	18 732	16 859
4	Of which defaulted	21 900	25 094	-	-	-

4.5 Credit risk under the SA [CRD]

The Group uses the SA for its ARO banking book portfolios (both wholesale and retail). Due to the relative scarcity of data, the ARO portfolios are not currently on the IRB migration plan.

Standard and Poor's and Moody's ratings are used by the Group as input into standardised capital formulas for the Group, corporate and sovereign asset classes. Rating agencies have limited coverage in ARO. Where more than one rating is available, the more conservative rating is applied. Issuer ratings are generally used. Obligors that are not rated externally are classified as unrated for RC purposes.

[1] The table has been restated from that previously published on 31 December 2019 and 30 June 2020 due to a change in assumptions used to determine the value of collateralised loans.

4. Credit risk

The following table provides an analysis, per Basel asset class, of the exposure and impact of CRM under the SA. In the ARO portfolio, there are limited amounts of eligible collateral available for use in regulatory calculations:

SA – credit risk exposure and CRM effects [CR4]

		a	b	c	d	e	f
		2020					
		Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and RWA density	
		On-balance sheet amount Rm	Off-balance sheet amount Rm	On-balance sheet amount Rm	Off-balance sheet amount Rm	RWA Rm	RWA density %
1	Corporate	31 575	21 837	31 095	10 689	44 460	106
2	SME Corporate	31 623	17 124	30 481	9 472	42 741	107
3	PSEs	2 999	1 235	2 435	497	1 525	52
4	Local governments and municipalities	-	-	-	-	-	-
5	Sovereign (including central government and central bank)	58 871	1 370	58 790	604	47 420	80
6	Banks	41 676	3 960	39 876	2 015	11 277	27
7	Securities firms	-	-	-	-	-	-
8	Residential mortgages (including any home equity line of credit)	10 185	-	9 962	-	4 133	41
9	Retail – revolving credit	1 942	2 133	1 788	1 065	2 160	76
10	Retail – other	31 367	37	30 202	14	22 673	75
11	SME retail	697	682	682	151	644	77
12	Total	210 935	48 378	205 311	24 507	177 033	77

		a	b	c	d	e	f
		2019					
		Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and RWA density	
		On-balance sheet amount Rm	Off-balance sheet amount Rm	On-balance sheet amount Rm	Off-balance sheet amount Rm	RWA Rm	RWA density %
1	Corporate	32 377	21 143	32 241	10 701	46 670	109
2	SME Corporate	36 058	12 945	34 807	8 347	44 894	104
3	PSEs	3 957	1 561	3 950	950	2 655	54
4	Local governments and municipalities	-	-	-	-	-	-
5	Sovereign (including central government and central bank)	51 549	1 295	51 548	564	39 937	77
6	Banks	28 662	1 722	28 646	1 237	7 671	26
7	Securities firms	-	-	-	-	-	-
8	Residential mortgages (including any home equity line of credit)	9 567	-	9 384	-	3 933	42
9	Retail – revolving credit	6 775	11 958	6 153	3 146	6 964	75
10	Retail – other	30 049	22	29 023	10	21 788	75
11	SME retail	754	3	737	1	593	80
12	Total	199 748	50 649	196 489	24 956	175 105	79

4. Credit risk

The following table provides an analysis, per Basel asset class, of the risk weights applied to standardised exposures:

SA – exposures by asset classes and risk weights [CR5]

		2020										
		a	b	c	d	e	f	g	h	i	j	k
		Risk weight										Total credit exposures amount (post CCF and post-CRM)
		0%	>0% - 10%	>10% - 20%	>20 % - 35%	>35% - 50%	>50 % - 75%	>75 % - 100 %	>100% - 150%	>150 %	Others	
	Asset classes											
1	Corporate	-	-	838	-	93	-	34 070	6 784	-	-	41 785
2	SME Corporate	31	-	1	-	436	-	33 411	6 075	-	-	39 954
3	PSEs	-	-	-	-	2 814	-	117	-	-	-	2 931
4	Local governments and municipalities	-	-	-	-	-	-	-	-	-	-	-
5	Sovereign (including central government and central bank)	7 065	-	3 860	-	9 171	-	33 769	5 529	-	-	59 394
6	Banks	19 859	-	12 266	-	2 347	-	6 959	461	-	-	41 892
7	Securities firms	-	-	-	-	-	-	-	-	-	-	-
8	Residential mortgages (including any home equity line of credit)	-	-	-	662	9 100	95	105	-	-	-	9 962
9	Retail – revolving credit	-	-	-	-	44	2 703	98	8	-	-	2 853
10	Retail – other	-	-	-	-	251	29 755	162	46	-	-	30 214
11	SME retail	-	-	-	-	4	588	236	5	-	-	833
12	Total	26 955	-	16 965	662	24 260	33 141	108 927	18 908	-	-	229 818

4. Credit risk

		a	b	c	d	e	f	g	h	i	j	k
		2019										
		Risk weight										Total credit exposures amount (post CCF and post-CRM)
		0%	>0% - 10%	>10% - 20%	>20 % - 35%	>35% - 50%	>50 % - 75%	>75 % - 100 %	>100% - 150%	>150 %	Others	
	Asset classes											
1	Corporate	-	-	-	-	6	-	35 473	7 462	-	-	42 941
2	SME Corporate	1 356	-	29	-	573	-	34 381	6 814	-	-	43 153
3	PSEs	-	-	-	-	4 695	-	-	205	-	-	4 900
4	Local governments and municipalities	-	-	-	-	-	-	-	-	-	-	-
5	Sovereign (including central government and central bank)	8 792	-	3 913	-	5 794	-	28 326	5 288	-	-	52 113
6	Banks	9 737	-	13 291	-	3 893	-	2 753	209	-	-	29 883
7	Securities firms	-	-	-	-	-	-	-	-	-	-	-
8	Residential mortgages (including any home equity line of credit)	-	-	-	-	8 986	98	301	-	-	-	9 385
9	Retail – revolving credit	-	-	-	-	57	9 092	141	8	-	-	9 298
10	Retail – other	-	-	-	-	219	28 692	45	77	-	-	29 033
11	SME retail	-	-	-	-	6	655	36	42	-	-	739
12	Total	19 885	-	17 233	-	24 229	38 537	101 456	20 105	-	-	221 445

4.6 Credit risk under the IRB approach [CRE]

Refer to the model risk section (section 8) for further details on credit risk under the IRB approach.

The principal objective of credit modelling is to produce the most accurate possible quantitative assessment of the Group's credit risk at a counterparty and portfolio level. Integral to this is the calculation of internal credit parameters used for credit risk management purposes and in the calculation of RC, EC and impairment requirements. The key credit parameters used in this process are EAD, PD, LGD, maturity (M) and asset correlation.

Key risk parameters used in credit risk measurement

EAD	PD	LGD	M	Correlation
Exposure at default	Probability of default	Loss-given default	Maturity	Correlation
An estimate of the level of credit exposure, should the obligor default occur during the next (rolling) 12-month period.	Represents the likelihood that an individual obligor/facility will default during the next (rolling) 12-month period.	Represents an estimate of the percentage of EAD that will not be recovered, should the obligor/facility default occur during the next (rolling) 12-month period.	Remaining time until the effective maturity date of the loan or other credit facility.	Measures to what extent the risks in the various industry sector and regions in the loan portfolio are related to common factors.
These parameters can be calculated to represent different views of the credit cycle, which are used in different applications:				
	Through-the-cycle (TTC): reflecting the predicted default frequency in an average 12-month period across the credit cycle. **Point-in-time (PIT):** reflecting the predicted default frequency contingent on the macroeconomic environment.	**Downturn (DT):** reflecting behaviour observed under stressed economic conditions. **Long run (LR):** reflecting business-as-usual measures or behaviour under benign/average conditions.		

4. Credit risk

Internal and vendor-supplied credit models are used to estimate the key credit parameters of EAD, PD, LGD and asset correlation. The Group uses different modelling methodologies, ranging from pure statistical models and cash flow models to expert-based models, taking into account quantitative and qualitative risk drivers.

To provide a common measure of default risk across the Group, an internal default grade scale is used. This scale is mapped to a scale of default probabilities for regulatory reporting purposes and to external agency ratings for benchmarking purposes.

The application of the key risk parameters in credit risk measurement and decision-making is set out in the following tables:

Application of key risk parameters in credit risk measurement

<table>
<tr><th>EAD</th><th>PD</th><th>LGD</th><th>M</th><th>Correlation</th></tr>
<tr><td>Exposure at default</td><td>Probability of default</td><td>Loss given default</td><td>Maturity</td><td>Correlation</td></tr>
<tr><td colspan="3">**EL:** The EL calculation is determined making use of EAD, TTC PD and depending on being a DT EL or LR EL will make use of either the DT LGD or LR LGD respectively.
Impairment parameters: The impairment calculation makes use of EAD considering all contractual terms over the lifetime of the instrument, PD reflecting the current and future economic cycles to the extent relevant to the remaining life of the loan calculated at a PIT and a current or forward looking LGD reflecting impact of economic scenarios.</td><td></td><td></td></tr>
<tr><td colspan="4">**RC parameters:** The RC calculation makes use of EAD, TTC PD, DT LGD and contractual maturity.</td><td></td></tr>
<tr><td colspan="5">**EC parameters:** The EC calculation makes use of EAD, TTC PD, LR LGD, contractual maturity as well as asset correlation, including PD-LGD correlation.</td></tr>
</table>

Application of key risk parameters in credit risk decision-making

Credit approval	PD models are used in the approval process in both retail and wholesale portfolios. In high-volume retail portfolios, application and behaviour scorecards are frequently used as decision-making tools. In wholesale and certain retail home loan portfolios, PD models are used to direct applications to an appropriate credit sanctioning level.
Risk reward and pricing	PD, EAD and LGD metrics are used to assess the profitability of deals and portfolios and to allow for risk-adjusted pricing and strategy decisions.
Risk appetite setting and monitoring	RC and EC (including measures of earnings volatility) are used in the Group's risk appetite framework. Measures of stressed losses and capital utilisation are used in the setting of concentration risk limits.
Risk profile reporting	Credit risk reports to Board and senior management use model outputs to describe the Group's credit risk profile.

4. Credit risk

The following tables provide a detailed breakdown, per Basel asset class, of the drivers of the Group's capital requirements under the AIRB approach:

Credit risk exposures by portfolio and PD range [CR6]

	a	b	c	d	e	f	g	h	i	j	k	l
	2020											
PD scale	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre CCF Rm	Average CCF %	EAD post CRM and post-CCF Rm	Average PD[1] %	Number of obligors #	Average LGD %	Average maturity %	RWA Rm	RWA density[2] %	EL Rm	Pro-visions Rm
Corporate												
0.00 to <0.15	67 866	42 466	24	84 590	0.11	243	33	1.63	15 085	18	29	69
0.15 to <0.25	23 196	11 798	33	29 427	0.23	132	29	1.97	8 213	28	19	64
0.25 to <0.50	58 815	35 369	29	77 545	0.36	425	30	2.04	29 288	38	83	174
0.50 to <0.75	16 226	13 162	50	22 040	0.57	220	35	2.23	12 825	58	44	67
0.75 to <2.50	49 456	20 378	47	51 031	1.52	2 677	35	1.88	40 406	79	273	404
2.50 to <10.00	10 822	5 075	32	12 870	5.41	314	35	1.82	15 473	120	248	520
10.00 to <100.00	1 043	605	71	1 324	22.53	94	37	1.44	2 445	185	105	108
100.00 (Default)	3 416	882	46	3 639	100.0	49	33	1.64	3 720	102	1 087	1 087
Sub-total	**230 840**	**129 735**	**33**	**282 466**	**2.11**	**4 154**	**32**	**1.88**	**127 455**	**45**	**1 888**	**2 493**
Specialised lending												
0.00 to <0.15	1 524	181	54	1 665	0.15	71	21	3.58	309	19	1	12
0.15 to <0.25	11 539	2 269	8	12 184	0.23	89	27	4.41	5 058	42	7	16
0.25 to <0.50	7 472	1 473	25	7 842	0.35	124	22	3.96	2 947	38	6	14
0.50 to <0.75	2 221	484	6	2 262	0.59	51	24	2.96	974	43	3	4
0.75 to <2.50	13 705	7 222	8	16 261	1.46	839	25	2.84	9 416	58	58	92
2.50 to <10.00	1 573	635	54	1 933	6.01	77	37	2.84	2 632	136	44	76
10.00 to <100.00	957	11	62	970	19.64	42	25	1.81	1 257	130	47	122
100.00 (Default)	2 573	7	-	2 586	100.0	35	29	2.96	2 029	78	679	679
Sub-total	**41 564**	**12 282**	**13**	**45 703**	**7.0**	**1 328**	**25**	**3.47**	**24 622**	**54**	**845**	**1 015**
SME Corporate												
0.00 to <0.15	2 116	830	46	2 880	0.07	942	44	3.19	325	11	1	5
0.15 to <0.25	3 148	1 662	24	3 810	0.23	669	32	2.69	1 122	29	3	13
0.25 to <0.50	10 462	4 523	65	13 166	0.42	2 842	35	2.84	5 783	44	19	70
0.50 to <0.75	10 323	2 606	77	12 647	0.64	2 002	35	2.88	6 739	53	28	83
0.75 to <2.50	48 238	14 208	68	59 801	1.65	35 795	37	2.97	45 659	76	381	547
2.50 to <10.00	12 876	2 987	75	15 800	5.44	3 485	40	2.76	18 251	116	349	383
10.00 to <100.00	3 014	440	85	3 485	28.01	1 232	39	3.02	6 311	181	367	312
100.00 (Default)	4 385	211	16	4 439	100.0	836	43	2.70	3 888	88	2 100	2 100
Sub-total	**94 562**	**27 467**	**66**	**116 028**	**6.38**	**47 803**	**37**	**2.90**	**88 078**	**76**	**3 248**	**3 513**
Public sector entities												
0.00 to <0.15	1 261	-	100	1 261	0.01	10	25	1.0	23	2	-	-
0.15 to <0.25	325	263	1	515	0.22	6	15	1.01	60	12	-	-
0.25 to <0.50	10 337	4 346	43	12 291	0.38	20	25	2.36	4 161	34	12	37
0.50 to <0.75	111	147	76	222	0.61	8	25	1.0	75	34	-	-
0.75 to <2.50	249	33	53	280	1.94	104	33	3.30	237	84	2	2
2.50 to <10.00	1 915	230	7	1 926	3.91	6	25	1.68	1 429	74	18	27
10.00 to <100.00	-	-	-	-	19.0	1	25	1.0	-	85	-	-
100.00 (Default)	44	492	100	308	100.0	1	25	1.82	-	-	84	84
Sub-total	**14 242**	**5 511**	**45**	**16 803**	**2.61**	**156**	**24**	**2.13**	**5 985**	**36**	**116**	**150**

[1] Total asset class average weighted PD percentage includes defaulted EADs
[2] Post-model adjustments (PMAs) not included.

4. Credit risk

	a	b	c	d	e	f	g	h	i	j	k	l
	2020											
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF	Average CCF	EAD post CRM and post-CCF	Average PD[1]	Number of obligors	Average LGD	Average maturity	RWA	RWA density[2]	EL	Pro-visions
	Rm	Rm	%	Rm	%	#	%	%	Rm	%	Rm	Rm
Local government and municipalities												
0.00 to <0.15	3 269	227	27	3 347	0.16	41	22	3.78	889	27	1	9
0.15 to <0.25	2 228	728	89	2 556	0.25	15	11	3.60	377	15	1	2
0.25 to <0.50	2 456	723	15	2 568	0.28	32	12	2.82	398	16	1	3
0.50 to <0.75	5	2	97	7	0.69	7	49	1.12	5	66	-	-
0.75 to <2.50	68	183	15	97	2.66	133	47	1.92	115	118	1	-
2.50 to <10.00	3	1	73	4	3.73	2	45	1.31	4	115	-	-
10.00 to <100.00	357	-	50	368	30.0	1	10	1.0	205	56	11	3
100.00 (Default)	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total	**8 386**	**1 864**	**45**	**8 947**	**1.47**	**231**	**16**	**3.31**	**1 993**	**22**	**15**	**17**
Sovereign (including central government and central bank)												
0.00 to <0.15	83 539	1 384	15	84 115	0.01	30	31	3.58	7 172	9	4	1
0.15 to <0.25	98	70	16	110	0.25	2	30	2.20	36	33	-	-
0.25 to <0.50	5 878	33	85	5 903	0.35	19	30	4.17	3 202	54	6	5
0.50 to <0.75	-	-	-	-	0.55	1	58	1.0	-	100	-	-
0.75 to <2.50	148	29	84	169	2.37	42	50	4.16	288	170	2	4
2.50 to <10.00	336	103	-	362	5.33	6	29	3.75	421	116	5	11
10.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total	**89 999**	**1 619**	**17**	**90 659**	**0.06**	**100**	**31**	**3.62**	**11 119**	**12**	**17**	**21**
Banks												
0.00 to <0.15	20 896	15 867	48	20 197	0.05	95	37	1.09	2 231	11	4	19
0.15 to <0.25	131	47	100	95	0.23	5	30	0.95	27	28	-	-
0.25 to <0.50	804	1 148	20	1 496	0.35	21	40	1.07	772	52	2	1
0.50 to <0.75	1	-	-	1	0.55	1	44	1.0	-	57	-	-
0.75 to <2.50	343	1 309	61	1 274	1.08	50	39	0.74	852	67	5	1
2.50 to <10.00	3 332	5 023	39	4 645	7.53	34	37	0.79	6 727	145	132	34
10.00 to <100.00	119	122	89	205	15.21	11	44	0.65	426	207	14	5
100.00 (Default)	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total	**25 626**	**23 516**	**46**	**27 913**	**1.47**	**217**	**37**	**1.02**	**11 035**	**40**	**157**	**60**
Securities firms												
0.00 to <0.15	586	2 064	73	2 034	0.05	15	39	1.47	205	10	-	-
0.15 to <0.25	1 228	477	21	396	0.24	7	44	1.02	142	36	-	1
0.25 to <0.50	510	350	48	772	0.40	11	34	1.0	279	36	1	2
0.50 to <0.75	2	1	82	3	0.60	3	43	1.01	2	58	-	-
0.75 to <2.50	984	110	22	695	1.15	34	29	2.19	451	65	2	3
2.50 to <10.00	214	1	100	215	3.79	7	35	1.0	256	120	3	5
10.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total	**3 524**	**3 003**	**60**	**4 115**	**0.51**	**77**	**36**	**1.44**	**1 335**	**32**	**6**	**11**

[1] Total asset class average weighted PD percentage includes defaulted EADs.
[2] PMAs not included.

4. Credit risk

	a	b	c	d	e	f	g	h	i	j	k	l
	2020											
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF	Average CCF	EAD post CRM and post-CCF	Average PD[1]	Number of obligors	Average LGD	Average maturity	RWA	RWA density[2]	EL	Pro-visions
	Rm	Rm	%	Rm	%	#	%	%	Rm	%	Rm	Rm
Retail mortgages (including any home equity line of credit)												
0.00 to <0.15	1 741	3 199	49	3 408	0.13	6 719	13	-	122	4	1	1
0.15 to <0.25	2 351	3 316	48	3 978	0.23	8 757	11	-	210	5	1	1
0.25 to <0.50	12 814	11 262	54	19 326	0.38	35 840	13	-	1 716	9	10	15
0.50 to <0.75	15 765	17 782	53	25 785	0.64	51 743	13	-	3 385	13	22	23
0.75 to <2.50	115 918	14 708	53	127 718	1.86	216 860	13	-	32 594	26	314	344
2.50 to <10.00	65 659	7 678	16	69 575	4.32	88 065	14	-	32 266	46	441	416
10.00 to <100.00	10 537	76	55	10 860	30.83	19 504	14	-	8 712	80	485	382
100.00 (Default)	24 848	97	-	24 849	100.0	41 194	21	-	2 605	10	6 129	6 129
Sub-total	**249 633**	**58 118**	**48**	**285 499**	**11.85**	**468 682**	**14**	**-**	**81 610**	**29**	**7 403**	**7 311**
Retail revolving credit												
0.00 to <0.15	853	7 678	52	6 629	0.11	413 683	55	-	262	4	4	11
0.15 to <0.25	820	2 803	51	2 622	0.23	148 742	59	-	194	7	4	6
0.25 to <0.50	3 196	5 609	52	6 791	0.39	350 044	58	-	769	11	15	33
0.50 to <0.75	2 284	2 381	52	3 857	0.64	176 011	58	-	645	17	14	13
0.75 to <2.50	11 868	6 590	54	16 880	1.65	738 542	56	-	5 473	32	153	388
2.50 to <10.00	18 965	16 024	63	26 068	5.44	606 286	58	-	20 250	78	820	1 936
10.00 to <100.00	3 464	346	59	4 003	28.14	202 033	56	-	5 942	148	630	1 670
100.00 (Default)	8 746	196	2	8 754	100.0	232 562	73	-	6 655	76	6 150	6 150
Sub-total	**50 196**	**41 627**	**56**	**75 604**	**15.40**	**2 867 903**	**59**	**-**	**40 190**	**53**	**7 790**	**10 207**
SME Retail												
0.00 to <0.15	1 638	1 984	82	3 815	0.06	110 433	61	-	200	5	1	109
0.15 to <0.25	492	279	96	789	0.23	4 425	41	-	152	19	1	5
0.25 to <0.50	1 434	1 129	86	2 774	0.38	37 049	60	-	777	28	6	51
0.50 to <0.75	812	253	85	1 126	0.65	5 069	55	-	438	39	4	10
0.75 to <2.50	7 179	2 615	79	10 345	1.65	58 269	50	-	5 205	50	90	78
2.50 to <10.00	3 997	1 004	91	5 169	5.77	32 480	65	-	5 031	97	195	96
10.00 to <100.00	1 514	214	90	1 783	26.69	6 494	69	-	3 179	178	329	71
100.00 (Default)	1 448	7	64	1 356	100.0	15 984	55	-	818	60	707	707
Sub-total	**18 514**	**7 485**	**83**	**27 157**	**8.55**	**270 203**	**57**	**-**	**15 800**	**58**	**1 333**	**1 127**
Retail – other												
0.00 to <0.15	1 191	705	68	3 830	0.15	17 394	27	-	319	8	1	4
0.15 to <0.25	177	198	24	304	0.20	5 623	65	-	85	28	-	-
0.25 to <0.50	2 033	226	57	2 319	0.42	21 003	40	-	646	28	4	9
0.50 to <0.75	2 458	51	66	2 535	0.66	21 513	40	-	898	35	7	1
0.75 to <2.50	24 390	1 120	62	25 595	1.82	171 224	39	-	13 004	51	168	310
2.50 to <10.00	49 453	236	66	49 686	5.85	346 853	41	-	32 852	66	1 181	1 574
10.00 to <100.00	17 043	66	18	17 086	18.91	129 603	42	-	15 903	93	1 394	1 898
100.00 (Default)	14 851	19	-	14 856	100.0	153 131	53	-	2 912	20	7 702	7 702
Sub-total	**111 596**	**2 621**	**60**	**116 211**	**18.50**	**866 344**	**42**	**-**	**66 619**	**57**	**10 457**	**11 498**
Total (all portfolios)	**938 682**	**314 848**	**44**	**1 097 105**	**8.0**	**4 527 198**	**31**	**2.00**	**475 841**	**43**	**33 275**	**37 423**

[1] Total asset class average weighted PD percentage includes defaulted EADs.

[2] PMAs not included.

4. Credit risk

	a	b	c	d	e	f	g	h	i	j	k	l
						2019						
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF	Average CCF	EAD post CRM and post-CCF	Average PD[1]	Number of obligors	Average LGD	Average maturity	RWA	RWA density[2]	EL	Pro-visions
	Rm	Rm	%	Rm	%	#	%	%	Rm	%	Rm	Rm
Corporate												
0.00 to <0.15	92 245	58 286	21	105 628	0.10	212	33	1.71	18 551	18	35	39
0.15 to <0.25	14 764	10 147	11	18 958	0.23	179	24	2.11	4 356	23	10	22
0.25 to <0.50	48 014	42 916	19	61 728	0.35	480	34	2.05	26 402	43	72	71
0.50 to <0.75	12 077	5 720	28	14 894	0.58	233	32	1.87	7 368	49	27	29
0.75 to <2.50	45 077	26 179	31	53 645	1.46	2 779	35	2.10	43 275	81	276	230
2.50 to <10.00	8 601	2 995	48	9 839	4.97	293	35	1.73	11 394	116	175	144
10.00 to <100.00	3 523	783	85	3 954	17.60	101	34	1.10	6 700	169	239	177
100.00 (Default)	1 787	315	76	1 928	100.00	40	36	1.18	1 736	90	642	642
Sub-total	226 088	147 341	23	270 574	1.61	4 317	33	1.89	119 782	44	1 476	1 354
Specialised lending												
0.00 to <0.15	1 648	1 648	1	1 920	0.15	45	24	3.17	381	20	1	4
0.15 to <0.25	11 010	3 329	5	11 871	0.22	91	25	4.37	4 551	38	7	7
0.25 to <0.50	9 479	1 580	5	9 776	0.40	115	26	3.74	4 651	48	11	18
0.50 to <0.75	2 385	466	-	2 415	0.60	59	18	3.12	822	34	3	3
0.75 to <2.50	10 933	3 169	2	11 390	1.48	850	21	3.33	5 932	52	36	31
2.50 to <10.00	2 651	1 005	-	2 680	5.27	69	33	3.52	3 236	121	47	39
10.00 to <100.00	1 478	662	-	1 782	23.02	38	22	1.79	2 109	118	93	81
100.00 (Default)	1 209	28	1	1 216	100.00	34	48	3.81	711	58	596	596
Sub-total	40 793	11 887	3	43 050	4.69	1 301	25	3.65	22 393	52	794	779
SME Corporate												
0.00 to <0.15	918	392	55	1 178	0.12	260	38	2.62	265	23	-	2
0.15 to <0.25	3 037	1 083	36	3 017	0.23	832	32	3.25	1 033	34	2	7
0.25 to <0.50	12 558	4 184	59	16 111	0.41	2 917	33	2.49	6 628	41	22	39
0.50 to <0.75	7 894	2 205	63	9 543	0.64	1 916	35	3.03	5 214	55	21	37
0.75 to <2.50	49 082	12 458	67	58 681	1.73	34 784	36	2.92	44 737	76	364	301
2.50 to <10.00	9 498	1 769	73	11 225	5.26	2 851	39	2.76	12 129	108	233	191
10.00 to <100.00	2 482	354	78	2 838	27.02	1 022	36	2.96	4 706	166	274	222
100.00 (Default)	3 092	82	51	3 144	100.00	652	38	2.79	2 480	79	1 348	1 348
Sub-total	88 561	22 527	64	105 737	5.34	45 234	36	2.85	77 192	73	2 264	2 147
Public sector entities	2 948	827	3	3 152	0.16	22	25	2.09	660	21	1	1
0.00 to <0.15	10 687	4 648	16	11 364	0.22	14	24	2.70	3 145	28	6	6
0.15 to <0.25	4	91	45	63	0.33	10	18	1.07	11	18	-	-
0.25 to <0.50	1 193	95	100	1 242	0.61	8	25	1.00	423	34	2	1
0.50 to <0.75	164	8	85	175	2.67	97	56	4.84	276	157	3	2
0.75 to <2.50	474	97	207	536	3.96	10	22	0.82	335	62	5	4
2.50 to <10.00	-	-	-	-	-	-	-	-	-	-	-	-
10.00 to <100.00	-	-	-	-	-	-	-	-	-	-	-	-
100.00 (Default)	15 470	5 766	19	16 532	0.39	161	25	2.41	4 850	29	17	14
Sub-total	2 948	827	3	3 152	0.16	22	25	2.09	660	21	1	1

[1] Total asset class average weighted PD percentage includes defaulted EADs
[2] Post-model adjustments (PMAs) not included.

4. Credit risk

	a	b	c	d	e	f	g	h	i	j	k	l
	2019											
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF	Average CCF	EAD post CRM and post-CCF	Average PD[1]	Number of obligors	Average LGD	Average maturity	RWA	RWA density[2]	EL	Pro-visions
	Rm	Rm	%	Rm	%	#	%	%	Rm	%	Rm	Rm
Local government and municipalities	5 084	1 971	37	5 490	0.15	33	15	3.42	807	15	1	4
0.00 to <0.15	1 864	923	1	2 469	0.25	11	11	3.33	345	14	1	1
0.15 to <0.25	23	489	1	30	0.38	9	45	1.28	15	48	–	–
0.25 to <0.50	–	–	100	–	0.62	2	45	1.00	–	–	–	–
0.50 to <0.75	497	256	27	582	2.72	163	44	3.73	823	141	7	5
0.75 to <2.50	–	1	100	1	5.41	2	45	1.00	1	142	–	4
2.50 to <10.00	–	–	–	–	–	–	–	–	–	–	–	–
10.00 to <100.00	–	–	–	–	–	–	–	–	–	–	–	–
100.00 (Default)	7 468	3 640	22	8 572	0.35	220	16	3.41	1 991	23	9	14
Sub-total	5 084	1 971	37	5 490	0.15	33	15	3.42	807	15	1	4
Sovereign (including central government and central bank)	63 473	3 256	19	65 049	0.01	42	30	3.22	4 610	7	2	2
0.00 to <0.15	280	60	35	303	0.24	7	38	2.91	137	45	–	1
0.15 to <0.25	1 790	16	100	1 801	0.28	20	30	3.35	761	42	1	5
0.25 to <0.50	–	20	78	15	0.72	5	30	1.00	7	44	–	–
0.50 to <0.75	145	–	100	145	2.59	19	54	4.98	286	196	2	2
0.75 to <2.50	361	255	–	393	5.50	8	27	4.07	440	112	6	6
2.50 to <10.00	–	–	–	–	–	–	–	–	–	–	–	–
10.00 to <100.00	–	–	–	–	–	–	–	–	–	–	–	–
100.00 (Default)	66 049	3 607	19	67 706	0.06	101	30	3.23	6 241	9	11	16
Sub-total	63 473	3 256	19	65 049	0.01	42	30	3.22	4 610	7	2	2
Banks												
0.00 to <0.15	12 118	12 097	66	14 055	0.03	87	33	1.03	889	6	1	3
0.15 to <0.25	241	530	100	694	0.23	7	27	1.02	188	27	–	1
0.25 to <0.50	251	455	22	328	0.39	12	41	1.02	154	47	1	1
0.50 to <0.75	11	1	100	13	0.55	2	44	0.97	9	72	–	–
0.75 to <2.50	185	689	91	654	1.84	49	42	0.89	577	88	5	2
2.50 to <10.00	2 603	1 765	99	4 012	6.81	41	38	0.83	5 379	134	104	36
10.00 to <100.00	35	74	106	76	23.51	8	44	0.88	174	228	8	2
100.00 (Default)	–	–	–	–	–	–	–	–	–	–	–	–
Sub-total	15 444	15 611	71	19 832	1.57	206	34	0.99	7 370	37	119	45
Securities firms												
0.00 to <0.15	946	2 364	65	1 994	0.04	22	19	1.12	109	5	–	–
0.15 to <0.25	2 241	234	43	2 291	0.24	10	30	1.72	650	28	2	2
0.25 to <0.50	21	1 513	6	91	0.29	11	24	1.00	20	22	–	–
0.50 to <0.75	6	–	59	6	0.60	7	38	3.04	5	71	–	–
0.75 to <2.50	595	119	22	615	0.95	33	30	1.00	344	56	2	1
2.50 to <10.00	3	2	87	4	4.00	5	58	1.03	7	166	–	–
10.00 to <100.00	–	–	–	–	–	–	–	–	–	–	–	–
100.00 (Default)	–	–	–	–	–	–	–	–	–	–	–	–
Sub-total	3 812	4 232	41	5 001	0.26	88	26	1.38	1 135	23	4	3

[1] Total asset class average weighted PD percentage includes defaulted EADs.

[2] PMAs not included.

4. Credit risk

	a	b	c	d	e	f	g	h	i	j	k	l
						2019						
PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF	Average CCF	EAD post CRM and post-CCF	Average PD[1]	Number of obligors	Average LGD	Average maturity	RWA	RWA density[2]	EL	Pro-visions
	Rm	Rm	%	Rm	%	#	%	%	Rm	%	Rm	Rm
Retail mortgages (including any home equity line of credit)												
0.00 to <0.15	1 004	1 444	52	1 822	0.11	3 249	14	-	67	4	-	-
0.15 to <0.25	2 075	3 451	48	3 760	0.23	8 298	11	-	193	5	1	1
0.25 to <0.50	10 165	10 688	54	16 304	0.37	30 394	14	-	1 451	9	8	6
0.50 to <0.75	14 292	14 669	54	22 812	0.63	43 665	14	-	3 042	13	20	4
0.75 to <2.50	114 464	18 274	52	127 775	1.82	234 387	13	-	30 809	24	293	174
2.50 to <10.00	67 225	4 890	81	71 148	4.46	100 584	14	-	31 929	45	444	183
10.00 to <100.00	8 421	49	58	8 682	30.95	17 205	14	-	6 591	76	358	139
100.00 (Default)	20 363	86	-	20 363	100.00	35 476	21	-	2 763	14	4 852	4 852
0.00 to <0.15	1 004	1 444	52	1 822	0.11	3 249	14	-	67	4	-	-
Sub-total	238 009	53 551	55	272 666	10.55	473 258	14	-	76 845	28	5 976	5 359
Retail revolving credit												
0.00 to <0.15	643	7 044	52	5 962	0.10	414 308	57	-	220	4	3	6
0.15 to <0.25	733	2 459	52	2 395	0.23	147 904	58	-	177	7	3	3
0.25 to <0.50	2 751	4 789	52	5 835	0.39	305 214	58	-	662	11	13	20
0.50 to <0.75	2 072	2 231	53	3 598	0.64	193 198	57	-	591	16	13	9
0.75 to <2.50	11 397	6 607	57	16 356	1.65	791 293	56	-	5 340	33	152	270
2.50 to <10.00	20 621	17 367	63	28 199	5.32	654 071	58	-	21 446	76	862	1 556
10.00 to <100.00	3 432	379	58	4 013	26.90	229 299	56	-	5 885	147	600	1 072
100.00 (Default)	7 028	141	-	7 028	100.00	201 895	74	-	3 975	57	4 900	4 900
0.00 to <0.15	48 677	41 017	57	73 386	13.54	2 937 182	59	-	38 296	52	6 546	7 836
Sub-total												
SME Retail												
0.00 to <0.15	236	1 298	77	1 772	0.06	98 740	73	-	120	7	1	146
0.15 to <0.25	327	252	67	516	0.22	10 322	31	-	70	14	-	1
0.25 to <0.50	886	1 154	85	2 213	0.39	43 792	61	-	599	27	5	67
0.50 to <0.75	1 092	553	88	1 749	0.63	11 312	52	-	671	38	6	11
0.75 to <2.50	9 117	2 886	80	12 602	1.60	62 884	50	-	6 441	51	107	86
2.50 to <10.00	3 488	563	96	4 211	5.66	18 200	70	-	4 372	104	169	71
10.00 to <100.00	1 054	116	86	1 206	26.48	5 042	66	-	2 043	169	207	53
100.00 (Default)	1 037	7	48	964	100.00	12 223	54	-	371	39	521	521
Sub-total	17 237	6 829	82	25 233	6.91	262 515	57	-	14 687	58	1 016	956
Retail – other												
0.00 to <0.15	1 348	959	72	4 226	0.15	19 916	25	-	354	8	2	2
0.15 to <0.25	201	185	32	336	0.22	5 492	62	-	96	29	-	-
0.25 to <0.50	1 667	183	69	1 920	0.45	17 977	41	-	563	29	4	2
0.50 to <0.75	3 337	83	32	3 428	0.66	29 778	38	-	1 158	34	9	2
0.75 to <2.50	26 102	1 115	60	27 268	1.95	174 902	38	-	13 641	50	199	148
2.50 to <10.00	47 074	115	34	47 164	5.20	395 420	41	-	31 908	68	1 088	846
10.00 to <100.00	13 554	41	12	13 584	20.74	135 636	45	-	13 907	102	1 288	980
100.00 (Default)	9 417	24	28	9 425	100.00	108 282	51	-	6 002	64	3 965	4 238
Sub-total	102 700	2 705	60	107 351	14.22	887 403	41	-	67 629	63	6 555	6 218
Total (all portfolios)	870 308	318 713	39	1 015 640	6.71	4 611 986	31	2.39	438 411	43	24 787	24 741

[1] Total asset class average weighted PD percentage includes defaulted EADs.
[2] PMAs not included.

4. Credit risk

Effect on RWA of credit derivatives used as CRM techniques [CR7]

The bank makes limited use of credit derivatives to mitigate credit risk in the banking book.

		a	b	a	b
		2020		2019	
		Pre-credit derivatives RWA Rm	Actual RWA Rm	Pre-credit derivatives RWA Rm	Actual RWA Rm
1	Corporate	127 561	127 455	120 075	119 783
2	Specialised lending	24 622	24 622	22 393	22 393
3	SME Corporate	88 078	88 078	77 193	77 193
4	PSEs	5 985	5 985	4 850	4 850
5	Local government and municipalities	1 993	1 993	1 990	1 990
6	Sovereign (including central government and central bank)	11 119	11 119	6 240	6 240
7	Banks	11 035	11 035	7 371	7 371
8	Securities firms	1 335	1 335	1 134	1 134
9	Retail mortgages (including any home equity line of credit)	81 610	81 610	76 844	76 844
10	Retail revolving credit	40 190	40 190	38 296	38 296
11	SME Retail	15 800	15 800	14 687	14 687
12	Retail - other	66 619	66 619	67 629	67 628
13	Total	475 947	475 841	438 702	438 409

RWA flow statements of credit risk exposures under IRB [CR8]

		a	a
		31 Dec 2020	30 Sep 2020
		RWA amounts Rm	RWA amounts Rm
1	RWA as at end of previous quarter	473 407	466 596
2	Asset size	(2 285)	12 777
3	Asset quality	15 659	(4 046)
4	Model updates	193	
5	Methodology and policy	-	
6	Acquisitions and disposals	-	(954)
7	Foreign exchange movements	(3 759)	(966)
8	Other	-	
9	RWA as at end of reporting period	483 215	473 407

4. Credit risk

IRB: Backtesting of PD per portfolio [CR9]

The tables below provide backtesting results to validate the reliability of the Bank's IRB PD models. In particular, the tables compare the long-run average PD used in AIRB capital calculations with the realised default rate observed over a five-year period, per Basel asset class. The average historical default rate is calculated as the number of defaults in a given year, divided by the number of obligors that were performing at the start of that year (averaged over five years).

	a	b	c	d	e	f	g
	2020						
				Number of obligors			
PD range	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of previous year #	End of the year #	Defaulted obligors in the year #	Average historical annual default rate %
Corporate							
0 to <0.15	AAA, AA, A, BBB+	0.11	-	-	-	-	0.10
0.15 to <0.25	BBB, BBB-	0.23	0.28	179	132	-	0.10
0.25 to <0.50	BBB-, BB+	0.36	0.37	480	425	2	0.03
0.50 to <0.75	BB+, BB	0.57	0.59	233	220	-	0.14
0.75 to <2.50	BB, BB-, B+	1.52	1.33	2 779	2 677	6	0.11
2.50 to <10.00	B+, B, B-	5.41	3.49	293	314	9	0.25
10.00to <100.0	CCC/C	22.53	35.37	-	-	6	0.83
100.00 (Default)	100.00 (Default)	100.00	100.00	40	49	-	1.63
0 to < 100.0	AAA to CCC/C	1.61	1.32	4 004	3 817	23	0.11
Specialised lending							
0 to <0.15	AAA, AA, A, BBB+	0.15	-	-	-	-	-
0.15 to <0.25	BBB, BBB-	0.23	0.11	91	89	-	-
0.25 to <0.50	BBB-, BB+	0.35	0.21	115	124	1	-
0.50 to <0.75	BB+, BB	0.59	0.36	59	51	-	0.07
0.75 to <2.50	BB, BB-, B+	1.46	0.60	850	839	-	0.13
2.50 to <10.00	B+, B, B-	6.01	26.84	69	77	1	0.51
10.00to <100.0	CCC/C	19.64	1.47	-	-	2	9.38
100.00 (Default)	100.00 (Default)	100.00	100.00	34	35	-	0.23
0 to < 100.0	AAA to CCC/C	1.51	2.22	1 218	1 215	4	0.13
SME Corporate							
0 to <0.15	AAA, AA, A, BBB+	0.07	-	-	-	-	0.13
0.15 to <0.25	BBB, BBB-	0.23	0.12	832	669	1	0.10
0.25 to <0.50	BBB-, BB+	0.42	0.21	2 917	2 842	9	0.16
0.50 to <0.75	BB+, BB	0.64	0.33	1 916	2 002	42	0.22
0.75 to <2.50	BB, BB-, B+	1.65	0.60	34 784	35 795	30	0.31
2.50 to <10.00	B+, B, B-	5.44	27.25	2 851	3 485	65	0.27
10.00to <100.0	CCC/C	28.01	1.34	-	-	124	1.55
100.00 (Default)	100.00 (Default)	100.00	100.00	652	836	-	0.15
0 to < 100.0	AAA to CCC/C	1.80	2.63	43 952	45 629	271	0.29
Sovereigns							
0 to <0.15	AAA, AA, A, BBB+	0.01	-	-	-	-	-
0.15 to <0.25	BBB, BBB-	0.25	0.01	7	2	-	-
0.25 to <0.50	BBB-, BB+	0.35	0.22	20	19	-	-
0.50 to <0.75	BB+, BB	0.55	0.33	5	1	-	-
0.75 to <2.50	BB, BB-, B+	2.37	0.67	19	42	-	-
2.50 to <10.00	B+, B, B-	5.33	10.37	8	6	-	-
10.00to <100.0	CCC/C	10.00	10.00	-	-	-	-
0 to < 100.0	AAA to CCC/C	1.99	1.35	59	70	-	-

4. Credit risk

	a	b	c	d	e	f	g
	2020						
				Number of obligors			
PD range	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of previous year #	End of the year #	Defaulted obligors in the year #	Average historical annual default rate %
Banks							
0 to <0.15	AAA, AA, A, BBB+	0.05	-	-	-	-	-
0.15 to <0.25	BBB, BBB-	0.23	0.21	7	5	-	-
0.25 to <0.50	BBB-, BB+	0.35	0.29	12	21	-	-
0.50 to <0.75	BB+, BB	0.55	0.53	2	1	-	-
0.75 to <2.50	BB, BB-, B+	1.08	1.11	49	50	-	-
2.50 to <10.00	B+, B, B-	7.53	5.79	41	34	-	-
10.00to <100.0	CCC/C	15.21	22.31	-	-	-	0.21
100.00 (Default)	100.00 (Default)	100.00	100.00	-	-	-	4.20
0 to < 100.0	AAA to CCC/C	2.87	2.34	111	111	-	0.55
Retail mortgages							
0 to <0.25	AAA, AA, A, BBB+,BBB, BBB-	-	0.27	11 547	15 476	11	-
0.25 to <0.50	BBB-, BB+	0.38	0.37	30 394	35 840	53	0.03
0.50 to <0.75	BB+, BB	0.64	0.64	43 665	51 743	125	0.05
0.75 to <2.50	BB, BB-, B+	1.86	1.54	234 387	216 860	2 167	0.21
2.50 to <10.00	B+, B, B-	4.32	3.76	100 584	88 065	5 664	0.53
10.00to <100.0	CCC/C	30.83	30.42	-	19 504	5 738	-
100.00 (Default)	100.00 (Default)	100.00	100.00	35 476	41 194	-	0.04
0 to < 100.0	AAA to CCC/C	3.35	3.06	456 053	468 682	13 758	0.22
Retail revolving credit							
0 to <0.25	AAA, AA, A, BBB+	-	0.27	562 212	562 425	2 874	-
0.25 to <0.50	BBB-, BB+	0.39	0.37	305 214	350 044	3 032	0.15
0.50 to <0.75	BB+, BB	0.64	0.61	193 198	176 011	1 578	0.25
0.75 to <2.50	BB, BB-, B+	1.65	1.42	791 293	738 542	12 720	0.56
2.50 to <10.00	B+, B, B-	5.44	5.11	654 071	606 286	43 479	1.95
10.00to <100.0	CCC/C	28.14	22.58	-	202 033	65 425	-
100.00 (Default)	100.00 (Default)	100.00	100.00	201 895	232 562	-	0.05
0 to < 100.0	AAA to CCC/C	3.97	3.45	2 707 883	2 867 903	129 108	0.64
SME retail							
0 to <0.0.25	AAA, AA, A, BBB+, BBB, BBB-	-	-	-	114 858	-	0.02
0.25 to <0.50	BBB-, BB+	0.38	0.21	43 792	37 049	7 421	1.38
0.50 to <0.75	BB+, BB	0.65	0.34	11 312	5 069	561	1.46
0.75 to <2.50	BB, BB-, B+	1.65	0.61	62 884	58 269	4 743	0.95
2.50 to <10.00	B+, B, B-	2.77	26.09	18 200	32 480	3 789	1.71
10.00to <100.0	CCC/C	26.69	1.38	-	6 494	715	-
100.00 (Default)	100.00 (Default)	100.00	100.00	12 223	15 984	-	0.15
0 to < 100.0	AAA to CCC/C	1.87	3.55	148 411	270 203	17 229	0.67

4. Credit risk

	a	b	c	d	e	f	g
	2020						
				Number of obligors			
PD range	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of previous year #	End of the year #	Defaulted obligors in the year #	Average historical annual default rate %
Retail - other							
0 to <0.50	AAA to BB+	-	0.73	43 385	44 020	719	0.21
0.50 to <0.75	BB+, BB	0.66	1.0	29 778	21 513	533	0.21
0.75 to <2.50	BB, BB-, B+	1.82	2.24	174 902	171 224	4 548	0.38
2.50 to <10.00	B+, B, B-	5.85	27.23	395 420	346 853	28 517	1.00
10.00to <100.0	CCC/C	18.91	22.35	-	129 603	45 369	-
100.00 (Default)	100.00 (Default)	100.0	100.0	108 282	153 131	-	0.04
0 to < 100.0	**AAA to CCC/C**	**6.74**	**17.92**	**751 767**	**866 344**	**79 686**	**0.60**

	a	b	c	d	e	f	g
	2020						
				Number of obligors			
PD range	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of previous year #	End of the year #	Defaulted obligors in the year #	Average historical annual default rate %
Corporate							
0 to <0.15	AAA, AA, A, BBB+	0.10	0.00	349	-	-	0.49
0.15 to <0.25	BBB, BBB-	0.23	0.37	131	179	-	0.48
0.25 to <0.50	BBB-, BB+	0.35	0.37	380	480	1	0.13
0.50 to <0.75	BB+, BB	0.58	0.61	201	233	-	0.69
0.75 to <2.50	BB, BB-, B+	1.46	1.35	1 705	2 779	7	0.54
2.50 to <10.00	B+, B, B-	4.97	3.54	275	293	7	1.21
10.00to <100.0	CCC/C	17.60	35.05	68	-	4	3.97
100.00 (Default)	100.00 (Default)	100.00	100.00	27	40	-	7.74
0 to < 100.0	AAA to CCC/C	0.89	1.30	3 136	4 004	19	0.54
Specialised lending							
0 to <0.15	AAA, AA, A, BBB+	0.15	0.00	46	-	-	-
0.15 to <0.25	BBB, BBB-	0.22	0.21	84	91	-	-
0.25 to <0.50	BBB-, BB+	0.40	0.35	135	115	2	-
0.50 to <0.75	BB+, BB	0.60	0.60	76	59	1	0.34
0.75 to <2.50	BB, BB-, B+	1.48	1.47	827	850	1	0.65
2.50 to <10.00	B+, B, B-	5.27	3.10	67	69	5	2.41
10.00to <100.0	CCC/C	23.02	23.05	18	-	1	45.60
100.00 (Default)	100.00 (Default)	100.00	100.00	36	34	-	1.11
0 to < 100.0	AAA to CCC/C	1.88	1.32	1 289	1 218	10	0.62

4. Credit risk

	a	b	c	d	e	f	g
				2020			
				Number of obligors			
	External rating equivalent	Weighted average PD	Arithmetic average PD by obligors	End of previous year	End of the year	Defaulted obligors in the year	Average historical annual default rate
PD range		%	%	#	#	#	%
SME Corporate							
0 to <0.15	AAA, AA, A, BBB+	0.12	0.00	139	-	-	0.60
0.15 to <0.25	BBB, BBB-	0.23	0.22	272	832	1	0.47
0.25 to <0.50	BBB-, BB+	0.41	0.37	2 634	2 917	19	0.80
0.50 to <0.75	BB+, BB	0.64	0.60	1 718	1 916	12	1.04
0.75 to <2.50	BB, BB-, B+	1.73	1.40	34 218	34 784	93	1.50
2.50 to <10.00	B+, B, B-	5.26	6.15	3 032	2 851	206	1.30
10.00to <100.0	CCC/C	27.02	25.13	789	-	74	7.47
100.00 (Default)	100.00 (Default)	100.00	100.00	678	652	-	0.71
0 to < 100.0	AAA to CCC/C	2.44	1.58	43 480	43 952	405	1.40
Sovereigns							
0 to <0.15	AAA, AA, A, BBB+	0.01	0.00	29	-	-	-
0.15 to <0.25	BBB, BBB-	0.24	0.22	9	7	-	-
0.25 to <0.50	BBB-, BB+	0.28	0.39	7	20	-	-
0.50 to <0.75	BB+, BB	0.72	0.70	1	5	-	-
0.75 to <2.50	BB, BB-, B+	2.59	1.73	11	19	-	-
2.50 to <10.00	B+, B, B-	5.50	3.30	2	8	-	-
10.00to <100.0	CCC/C	10.00	10.00	-	-	-	-
0 to < 100.0	AAA to CCC/C	0.06	1.22	59	59	-	-
Banks							
0 to <0.15	AAA, AA, A, BBB+	0.03	0.00	94	-	-	-
0.15 to <0.25	BBB, BBB-	0.23	0.18	16	7	-	-
0.25 to <0.50	BBB-, BB+	0.39	0.30	6	12	-	-
0.50 to <0.75	BB+, BB	0.55	0.60	6	2	-	-
0.75 to <2.50	BB, BB-, B+	1.84	1.44	42	49	-	-
2.50 to <10.00	B+, B, B-	6.81	4.64	26	41	-	-
10.00to <100.0	CCC/C	23.51	15.00	5	-	-	1.00
100.00 (Default)	100.00 (Default)	100.00	100.00	1	-	-	20.00
0 to < 100.0	AAA to CCC/C	0.99	2.41	196	111	-	-
Retail mortgages							
0 to <0.25	AAA, AA, A, BBB+,BBB, BBB-	0.00	0.29	12 467	11 547	16	0.08
0.25 to <0.50	BBB-, BB+	0.37	0.37	32 806	30 394	37	0.13
0.50 to <0.75	BB+, BB	0.63	0.65	48 424	43 665	93	0.23
0.75 to <2.50	BB, BB-, B+	1.82	1.60	229 628	234 387	1 593	1.00
2.50 to <10.00	B+, B, B-	4.46	3.71	98 549	100 584	3 285	2.57
10.00to <100.0	CCC/C	30.95	29.14	19 588	17 205	4 290	17.30
100.00 (Default)	100.00 (Default)	100.00	100.00	36579	35476	-	-
0 to < 100.0	AAA to CCC/C	3.33	2.95	478 041	473 258	9 314	1.84

4. Credit risk

	a	b	c	d	e	f	g
				2020			
				Number of obligors			
PD range	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of previous year #	End of the year #	Defaulted obligors in the year #	Average historical annual default rate %
Retail revolving credit							
0 to <0.25	AAA, AA, A, BBB+	0.00	0.28	520 847	562 212	2 181	0.27
0.25 to <0.50	BBB-, BB+	0.39	0.36	319 704	305 214	2 782	0.74
0.50 to <0.75	BB+, BB	0.64	0.61	175 089	193 198	2 420	1.23
0.75 to <2.50	BB, BB-, B+	1.65	1.44	773 107	791 293	17 240	2.72
2.50 to <10.00	B+, B, B-	5.32	5.11	646 264	654 071	62 829	9.43
10.00to <100.0	CCC/C	26.90	23.16	222 514	229 299	68 271	19.87
100.00 (Default)	100.00 (Default)	100.00	100.00	201428	201895	-	-
0 to < 100.0	AAA to CCC/C	4.38	3.72	2 858 953	2 937 182	155 723	4.93
SME retail							
0 to <0.0.25	AAA, AA, A, BBB+, BBB, BBB-	0.00	0.00	97 962	109 062	-	-
0.25 to <0.50	BBB-, BB+	0.39	0.34	30 856	43 792	4 726	6.86
0.50 to <0.75	BB+, BB	0.63	0.61	3 565	11 312	431	6.97
0.75 to <2.50	BB, BB-, B+	1.60	1.52	76 384	62 884	3 254	4.40
2.50 to <10.00	B+, B, B-	5.66	3.70	23 539	18 200	2 488	8.33
10.00to <100.0	CCC/C	26.48	24.78	5 335	5 042	532	15.99
100.00 (Default)	100.00 (Default)	100.00	100.00	5775	12223	-	0.26
0 to < 100.0	AAA to CCC/C	3.22	1.24	243 416	262 515	11 431	3.55
Retail - other							
0 to <0.50	AAA to BB+						
0.50 to <0.75	BB+, BB	0.00	0.22	43 724	43 385	397	1.00
0.75 to <2.50	BB, BB-, B+	0.66	0.59	25 281	29 778	334	1.02
2.50 to <10.00	B+, B, B-	1.95	1.57	180 923	174 902	2 945	1.84
10.00to <100.0	CCC/C	5.20	5.05	368 634	395 420	17 020	4.86
100.00 (Default)	100.00 (Default)	20.74	20.02	132 031	135 636	38 095	16.23
0 to < 100.0	AAA to CCC/C	100.00	100.00	100836	108282	-	-

4.7 Counterparty credit risk (CCR) [CCRA]

CCR arises from the risk of losses due to a counterparty defaulting before meeting all their financial and contractual obligations on bilateral derivatives or securities financing transactions (SFTs). This includes failure to pay a regular cash flow, make a specific payment or deliver an asset. The credit risk relating to a derivative or SFT changes due to movement in underlying market variables. The loss to the Group is the cost of replacing or closing out the contract.

- **CCR measurement:** The Group uses two principal CCR exposure measures, namely CEM and potential future exposure (PFE). Both of these exposure measures are measured at least daily. PFEs are measured at a 98% confidence level. The SA-CCR will replace the CEM with effect from 1 January 2021.
- **Limit approval:** The principle of 'no limit, no trade' is strictly applied and all limits are to be approved by the risk sanctioning unit. All CCR limits are considered uncommitted and are revocable at any time. Break clauses are used to establish early termination rights.
- **Risk mitigants:** Cash and/or financial securities can be accepted to offset the exposure to trading positions which lead to CCR.
- **Exposure monitoring:** CCR activities are monitored through the management of limit excesses and failed trades.
- **Stress testing:** Stress testing is used to assess exposures to obligors or obligor groups and potential Bank losses under stress scenarios. Stress scenarios range from extreme but plausible events to less extreme but more probable stressed market conditions.

Wrong way risk (incorporated in the CCR profile) arises when there is adverse (positive) correlation between the obligor's PD and the Group's exposure to the obligor. Right way risk arises when an obligor's exposure is negatively correlated with the PD.

4. Credit risk

The table below provides a view of the Group's regulatory CCR exposure, effectiveness of CRM techniques and RWA consumption. The table excludes CVA charges (table [CCR2]) and exposures cleared through central counterparties (CCPs) (table [CCR8]).

Analysis of CCR exposure by approach [CCR1]

		a	b	c	d	e	f
		2020					
		Replacement cost Rm	PFE Rm	Effective expected positive exposure (EEPE) Rm	Alpha used for computing regulatory EAD Rm	EAD post-CRM Rm	RWA Rm
1	CEM (for derivatives)	36 003	23 173		1.4	44 471	14 286
2	IMM (for derivatives and SFTs)			-	-	-	-
3	Simple approach for CRM (for SFTs)					-	-
4	Comprehensive approach for CRM (for SFTs)					8 385	3 581
5	VaR for SFTs					-	-
6	**Total**						**17 867**

		a	b	c	d	e	f
		2019					
		Replacement cost Rm	PFE Rm	Effective expected positive exposure (EEPE) Rm	Alpha used for computing regulatory EAD Rm	EAD post-CRM Rm	RWA Rm
1	CEM (for derivatives)	22 626	21 153		1.40	35 305	12 570
2	IMM (for derivatives and SFTs)			-	-	-	-
3	Simple approach for CRM (for SFTs)					-	-
4	Comprehensive approach for CRM (for SFTs)					5 359	1 800
5	VaR for SFTs					-	-
6	Total						14 370

CVA accounts for the risk of mark-to-market losses on over-the-counter (OTC) derivatives due to credit quality fluctuations on the derivative counterparty. A CVA capital charge is required under Basel III rules. The Group uses the SA for the calculation of CVA capital.

CVA capital charge [CCR2]

		a	b	a	b
		2020		2019	
		EAD post-CRM Rm	RWA Rm	EAD post-CRM Rm	RWA Rm
	Total portfolios subject to the Advanced CVA capital charge				
1	i. VaR component (including the 3×multiplier)		-		-
2	ii. sVaR component (including the 3×multiplier)		-		-
3	All portfolios subject to the Standardised CVA capital charge	44 471	14 663	32 829	12 092
4	**Total subject to the CVA capital charge**	**44 471**	**14 663**	32 829	12 092

4. Credit risk

The table below provides a view of all relevant parameters used for the calculation of CCR capital requirements under the Group's AIRB models. The table excludes CVA charges and exposures cleared through a CCP.

IRB – CCR exposures by portfolio and PD scale [CCR4]

	a	b	c	d	e	f	g
	2020						
PD scale	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average Maturity Yrs	RWA Rm	RWA density %
Corporate/SME Corporate							
0. 00 to <0.15	6 963	0.07	37	30	1.50	920	13
0.15 to <0.25	3 733	0.23	34	27	3.22	1 261	34
0.25 to <0.50	3 872	0.34	97	29	1.79	1 317	34
0.50 to <0.75	10 978	0.61	35	26	1.30	4 106	37
0.75 to <2.50	1 118	1.60	333	40	1.20	919	82
2.50 to <10.00	485	5.15	37	39	1.14	597	123
10.00 to <100.00	185	18.03	7	11	1.00	104	56
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	27 334	0.62	580	28	1.68	9 224	34
Banks/Securities firms							
0. 00 to <0.15	17 711	0.04	32	40	1.49	2 963	17
0.15 to <0.25	86	0.21	8	44	2.61	51	59
0.25 to <0.50	3 255	0.37	22	42	1.49	1 456	45
0.50 to <0.75	-	0.74	1	44	1.0	-	66
0.75 to <2.50	1 142	1.54	37	44	1.11	1 036	91
2.50 to <10.00	1 483	7.91	14	43	0.76	2 372	160
10.00 to <100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	23 677	0.65	114	41	1.30	7 878	33
Total (all portfolios)	51 011	0.64	694	34	1.50	17 102	34

4. Credit risk

	a	b	c	d	e	f	g
	2019						
PD scale	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average Maturity Yrs	RWA Rm	RWA density %
Corporate/SME Corporate							
0.00 to <0.15	3 179	0.10	56	37	1.52	622	20
0.15 to <0.25	1 469	0.23	38	28	3.88	587	40
0.25 to <0.50	2 346	0.38	98	37	2.07	1 164	50
0.50 to <0.75	9 220	0.61	22	25	1.54	3 551	39
0.75 to <2.50	1 785	1.44	304	41	1.64	1 499	84
2.50 to <10.00	152	5.71	41	39	1.89	203	134
10.00 to <100.00	36	24.52	11	33	1.03	64	178
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	18 187	0.63	570	31	1.81	7 690	42
Banks/Securities firms							
0.00 to <0.15	16 570	0.07	38	41	1.18	3 064	18
0.15 to <0.25	79	0.23	11	34	2.15	38	48
0.25 to <0.50	1 284	0.37	15	37	1.72	605	47
0.50 to <0.75	217	0.60	4	44	0.62	119	55
0.75 to <2.50	1 371	2.01	29	44	0.62	1 278	93
2.50 to <10.00	481	5.34	18	28	0.66	417	87
10.00 to <100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	20 002	0.35	115	41	1.16	5 521	28
Total (all portfolios)	38 189	0.48	685	36	1.47	13 211	35

The table below provides a breakdown of the types of collateral posted or received by the Group to support or reduce the CCR exposure related to derivatives and SFTs, including transactions cleared through a CCP. The Group relies mainly on cash and government bonds as collateral for derivative and securities financing contracts. The value of collateral used in each leg of SFTs is depicted on a gross basis.

Composition of collateral for CCR exposure [CCR5]

	a	b	c	d	e	f
	2020					
	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
	Segregated Rm	Unsegregated Rm	Segregated Rm	Unsegregated Rm	Rm	Rm
Cash – domestic currency	-	6 424	-	740	49 907	54 764
Cash – other currencies	-	4 497	-	7 979	2 637	20 375
Domestic sovereign debt	-	-	-	-	55 965	44 887
Other sovereign debt	-	-	-	-	288	2
Government agency debt	-	-	-	-	-	-
Corporate bonds	-	2 574	-	1 456	24 187	2 051
Equity securities	-	-	-	-	-	-
Other collateral	-	-	-	-	-	-
Total	-	13 495	-	10 175	132 984	122 079

4. Credit risk

	a	b	c	d	e	f
	2019					
	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
	Segregated	Unsegregated	Segregated	Unsegregated		
	Rm	Rm	Rm	Rm	Rm	Rm
Cash – domestic currency	-	4 390	-	1 264	56 507	51 873
Cash – other currencies	-	2 196	-	4 137	6 289	18 132
Domestic sovereign debt	-	-	-	-	51 240	53 003
Other sovereign debt	-	-	-	-	102	-
Government agency debt	-	-	-	-	-	-
Corporate bonds	-	2 006	-	983	25 023	5 566
Equity securities	-	-	-	-	-	-
Other collateral	-	-	-	-	-	-
Total	-	8 592	-	6 384	139 161	128 574

The table below illustrates the extent of the Group's exposures to credit derivative transactions in the trading book broken down between protection bought and protection sold positions.

Credit derivatives exposures [CCR6]

	a	b	a	b
	2020		2019	
	Protection bought	Protection sold	Protection bought	Protection sold
	Rm	Rm	Rm	Rm
Notionals				
Single-name credit default swaps	4 714	2 425	5 581	3 342
Index credit default swaps	-	-	-	-
Total return swaps	15 859	15 492	13 772	10 813
Credit options	-	-	-	-
Other credit derivatives	-	-	1 401	-
Total notionals	**20 573**	**17 917**	20 754	14 155
Fair values				
Positive fair value (asset)	424	688	2 434	202
Negative fair value (liability)	(447)	(299)	(259)	(547)

4. Credit risk

The table below provides a comprehensive picture of the Group's exposure to qualifying CCPs. The Group has no exposure to non-qualifying CCPs. The table includes exposures due to operations, margins posted and contributions to default funds.

Exposures to CCPs [CCR8]

		a	b	a	b
		2020		2019	
		EAD post-CRM Rm	RWA Rm	EAD post-CRM Rm	RWA
1	Exposures to qualifying central counterparty (QCCPs) (total)		2 343		1 333
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	–	–	–	–
3	i. OTC derivatives	–	–	–	–
4	ii. Exchange-traded derivatives	9 467	2 219	5 355	1 308
5	iii. SFTs	–	–	–	–
6	iv. Netting sets where cross-product netting has been approved	–	–	–	–
7	Segregated initial margin	–		–	
8	Non-segregated initial margin	5 224	118	579	19
9	Pre-funded default fund contributions	55	6	55	6
10	Unfunded default fund contributions	–	–	–	–
11	Exposures to non-QCCPs (total)		–		–
12	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	–	–	–	–
13	i. OTC derivatives	–	–	–	–
14	ii. Exchange-traded derivatives	–	–	–	–
15	iii. SFTs	–	–	–	–
16	iv. Netting sets where cross-product netting has been approved	–	–	–	–
17	Segregated initial margin	–		–	
18	Non-segregated initial margin	–	–	–	–
19	Pre-funded default fund contributions	–	–	–	–
20	Unfunded default fund contributions	–	–	–	–

4. Credit risk

4.8 Securitisation [SECA]

Securitisation is the financial practice of pooling various types of contractual debt such as residential and commercial mortgages, vehicle loans, or credit card debt obligations and selling their related cash flows to third party investors as securities in the form of note or bond issuances. Risk arises from the extent of credit enhancement provided to absorb losses from defaults on the underlying loans to support the required rating.

The Group currently does not undertake any securitisation transactions apart from the SARB committed liquidity facility (CLF) which is a non-market securitisation transaction. Under this facility, home loans are sold into a special purpose vehicle structure, notes are issued to Absa Bank to fund this acquisition, and the senior notes are ceded to the SARB as collateral for the CLF.

Securitisation exposures in the banking book [SEC1]

		a	b	c	e	f	g
		2020					
		Bank acts as originator			Bank acts as sponsor		
		Traditional Rm	Synthetic Rm	Sub-total Rm	Traditional Rm	Synthetic Rm	Sub-total Rm
1	Retail (total)	-	-	-	930	-	930
2	Residential mortgage	-	-	-	930	-	930
6	Wholesale (total)	-	-	-	-	-	-

		a	b	c	e	f	g
		2019[1]					
		Bank acts as originator			Bank acts as sponsor		
		Traditional Rm	Synthetic Rm	Sub-total Rm	Traditional Rm	Synthetic Rm	Sub-total Rm
1	Retail (total)	-	-	-	219	-	219
2	Residential mortgage	-	-	-	219	-	219
6	Wholesale (total)	-	-	-	-	-	-

[1] The data in this table has been restated from that previously published on 31 December 2019 and 30 June 2020 to correct for an error in the measurement of a note held in a securitisation.

4. Credit risk

Securitisation exposures in the banking book and associated RC requirements – bank acting as originator or as sponsor [SEC3]

		a	b	c	d	e
		2020 Exposure values (by risk-weight (RW) bands)				
		≤20% RW Rm	>20% to 50% RW Rm	50% to 100% RW Rm	>100% to <1 250% RW Rm	1 250% RW Rm
1	Total exposures	-	-	-	930	-
2	Traditional securitisation	-	-	-	930	-
3	Of which securitisation	-	-	-	930	-
4	Of which retail underlying	-	-	-	930	-
5	Of which wholesale	-	-	-	-	-
6	Of which re-securitisation	-	-	-	-	-
7	Of which senior	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-
9	Synthetic securitisation	-	-	-	-	-
10	Of which securitisation	-	-	-	-	-
11	Of which retail underlying	-	-	-	-	-
12	Of which wholesale	-	-	-	-	-
13	Of which re-securitisation	-	-	-	-	-
14	Of which senior	-	-	-	-	-
15	Of which non-senior	-	-	-	-	-

		a	b	c	d	e
		2019[1] Exposure values (by risk-weight (RW) bands)				
		≤20% RW Rm	>20% to 50% RW Rm	50% to 100% RW Rm	>100% to <1 250% RW Rm	1 250% RW Rm
1	Total exposures	-	-	883	110	-
2	Traditional securitisation	-	-	883	110	-
3	Of which securitisation	-	-	883	110	-
4	Of which retail underlying	-	-	883	110	-
5	Of which wholesale	-	-	-	-	-
6	Of which re-securitisation	-	-	-	-	-
7	Of which senior	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-
9	Synthetic securitisation	-	-	-	-	-
10	Of which securitisation	-	-	-	-	-
11	Of which retail underlying	-	-	-	-	-
12	Of which wholesale	-	-	-	-	-
13	Of which re-securitisation	-	-	-	-	-
14	Of which senior	-	-	-	-	-
15	Of which non-senior	-	-	-	-	-

[1] The data in this table has been restated from that previously published on 31 December 2019 to correct for an error in the measurement and classification of a note held in a securitisation. In addition, the table has been restated from that previously published on 30 June 2020 to correct for an error in the measurement of a note held in a securitisation.

4. Credit risk

f	g	h	i	j	k	l	m	n	o	p	q
2020											
Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap			
IRB RBA[1] (incl. IAA[2])	IRB SFA[3]	SA[4]/SSFA[5]	1 250%	IRB RBA (incl. IAA)	IRB SFA	SA/SSFA	1 250%	IRB RBA (incl. IAA)	IRB SFA	SA/SSFA	1 250%
Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
930	-	-	-	4 451	-	-	-	356	-	-	-
930	-	-	-	4 451	-	-	-	356	-	-	-
930	-	-	-	4 451	-	-	-	356	-	-	-
930	-	-	-	4 451	-	-	-	356	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

f	g	h	i	j	k	l	m	n	o	p	q
2019[6]											
Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap			
IRB RBA[1] (incl. IAA[2])	IRB SFA[3]	SA[4]/SSFA[5]	1 250%	IRB RBA (incl. IAA)	IRB SFA	SA/SSFA	1 250%	IRB RBA (incl. IAA)	IRB SFA	SA/SSFA	1 250%
Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
993	-	-	-	1 228	-	-	-	98	-	-	-
993	-	-	-	1 228	-	-	-	98	-	-	-
993	-	-	-	1 228	-	-	-	98	-	-	-
993	-	-	-	1 228	-	-	-	98	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

[1] RBA: ratings based approach
[2] IAA: Internal assessment approach
[3] SFA: supervisory formula approach
[4] SA: standardised approach
[5] SSFA: simplified supervisory formula approach
[6] The data in this table has been restated from that previously published on 31 December 2019 to correct for an error in the measurement and classification of a note held in a securitisation. In addition, the table has been restated from that previously published on 30 June 2020 to correct for an error in the measurement of a note held in a securitisation.

4. Credit risk

4.9 Equity investment risk

Equity investment risk refers to the risk of adverse changes in the value of listed and unlisted equity investments. These investments are longer-term investments held in the banking book for non-trading purposes.

The Group's governance of equity investments is based on the following fundamental principles:

- A formal approval governance process.
- Key functional specialists reviewing investment proposals.
- Adequate monitoring and control after the investment decision has been implemented.
- Implementation of best practice standards based on current market trends, hurdle rates and benchmarks.

Criteria considered for transactions cover a comprehensive set of financial, commercial, legal and technical (where required) considerations. The performance of these investments is monitored relative to the portfolio's objectives.

The Group uses the simple risk-weight regulatory approach for the calculation of RC on its equity investment portfolio.

Equities under the simple risk-weight method [CR10]

	2020				
	On-balance sheet amount Rm	Off-balance sheet amount Rm	Risk weight %	Exposure amount Rm	RWA Rm
Exchange-traded equity exposures	322		300	322	1 025
Private equity exposures	2 433		400	2 432	10 317
Total	2 755			2 754	11 342

	2019				
	On-balance sheet amount Rm	Off-balance sheet amount Rm	Risk weight %	Exposure amount Rm	RWA Rm
Exchange-traded equity exposures	595		300	595	1 891
Private equity exposures	2 387		400	2 387	10 122
Total	2 982			2 982	12 013

5. Traded market risk

5. Traded market risk

Traded market risk is the risk of the Group's earnings or capital being adversely impacted due to changes in the level or volatility of prices affecting the positions in its active trading activities across the Group. This includes but is not limited to changes in interest rates, credit spreads, commodity prices, equity prices and foreign exchange levels.

5.1 Review of current reporting period

Key risk metrics	2020	2019
Average traded market risk – 99% value at risk (VaR) (Rm)	62.9	56.9
Traded market risk RWA (Rbn)	40.1	39.2

- The increase in average VaR and RWA was principally due to an increase in the historic market volatility feeding the internal model, resulting from the Covid-19 pandemic. This was compounded by reduced liquidity creating a challenging environment for the business to exit risk arising through client facilitation.
- The Group remained cautious in the ARO risk portfolio as client activity declined during the peak of the Covid-19 pandemic uncertainty.

5.2 Priorities

- The monitoring and management of risk in a volatile environment with a multitude of events of significant economic impact occurring in a short period of time.
- The management of capital demand within the Group's risk appetite in volatile markets with reduced liquidity through close engagement with business, limit monitoring and return on capital analyses.
- Business and product impact assessments and engagement with industry and regulatory forums to assess the impact of the Basel Standard: Minimum Capital Requirements for market risk, or FRTB, issued in January 2019.
- Maintaining the momentum on the FRTB project to prepare the Group for meeting the regulatory implementation deadline of 1 January 2023 in South Africa.

5.3 General information about market risk [MRA and MRB]

5.3.1 Risk identification and management

The first line of defence for market risk management resides with business unit heads. An independent market risk team that reports to the GCRO is responsible for the oversight of the business units. The team ensures these risks remain within set limits, including VaR, sensitivity, loss threshold and stress testing. Limits and thresholds are reviewed and set at the Group level and allocated to business units at least annually. The market risk function ensures limit and threshold excesses are reviewed and managed in accordance with an action plan approved by market risk or brought back in line when they occur. Excesses and actions are reported to the Traded Market Risk Committee (TMRC).

Traded market risk management objectives are to:

- Embed appropriate models to measure risk.
- Ensure risk is managed within the Group's risk appetite by monitoring risk against the limit and appetite framework.
- Understand risk sensitivity and the impact of volatility on the portfolio.
- Understand concentration risk, risk correlations and basis risk across the portfolio.
- Utilise stress testing and empirical analytics to supplement model-based risk management.

The Group aims to manage traded market risk in a way that limits earnings volatility and ensures risk utilisation is within the Group's allocated risk appetite. The Group takes on market risk to support the needs of its customers to facilitate market liquidity as a market maker and leverage short-term market mispricing. Market risk is controlled by risk management frameworks, polices and standards, supported by daily limit monitoring.

Several techniques are used to measure and control traded market risk daily. These include:

- VaR-based measures including sVaR, supported by model backtesting.
- Tail metrics.
- Position and sensitivity metrics.
- Stress testing.
- EAD risk monitoring.
- Standardised general and specific risk.
- EC and EaR.
- Valuation control, independent price and bid-offer testing conducted by the independent valuation control team within product control.

A limit structure is in place for each of the above metrics. These are set and reviewed at least annually to control the Group's trading activities, in line with the allocated risk appetite. The criteria for allocating risk limits to businesses include relevant market analysis, market liquidity and business strategy.

VaR[1]

VaR is an estimate of the potential loss that may arise from unfavourable market movements if current positions were to be held unchanged for one business day.

[1] In line with regulatory requirements for public disclosures on the IMA, the sections on VaR, backtesting, tail metrics and sVaR specifically relate to the internal model used for the calculation of South Africa market risk RC.

5. Traded market risk

The Group uses an internal VaR model based on the historical simulation method to derive the quantitative market risk measures under normal conditions. The VaR model utilises a two-year data history of unweighted historical price and rate data and a holding period of one day with a confidence interval of 99%. Market and position data inputs are updated daily. The model uses both absolute and relative approaches to simulating potential movements in risk factors. The model is approved by the PA to calculate the RC for all trading book exposures, including foreign exchange and commodity risk in the banking book. The approval covers general position risk across interest rate, foreign exchange, commodity, equity and traded credit products risks. VaR is scaled up to the 10-day holding period (via a scalar1 assuming no autocorrelation to increase the holding period time horizon). The PA assigned a model multiplier to be used in the calculation of RC.

The historical simulation methodology can be split into three parts:

- Calculate hypothetical daily profit or loss for each position over the most recent two years, using observed daily market moves.
- Sum of all hypothetical profits or losses for day one across all positions, giving one total profit or loss. Repeated for all other days in the two-year history.
- VaR is the 99th percentile loss selected from the resultant two-year historically simulated strip of daily hypothetical net profit or loss.

While VaR is an important market risk measurement and control tool, it has a number of known limitations, namely:

- The historical simulation assumes that the past is a good representation of the future[2], which might not always be the case.
- The assumed time horizon does not fully capture the market risk of positions that cannot be closed out or hedged within this time horizon.
- The VaR may underestimate the severity of potential losses.
- The VaR is based on positions at the close of the business day. The intra-day risk or the risk from a position being bought and sold on the same day is not captured.
- Prudent valuation practices are used in the VaR calculation when it is difficult to obtain historical rates/price information.

Because of these limitations, tail risk metrics, stress testing and position and sensitivity measures are used to complement VaR in the management of traded market risk.

Backtesting[1]

The performance of the model is regularly assessed for continuous suitability. The main technique employed is backtesting, which counts the number of days where the daily trading losses exceed the corresponding VaR estimate. Backtesting measures the daily losses against VaR assuming a one-day holding period and a 99% level of confidence. Backtesting reports are monitored daily. Daily losses in excess of the VaR figure are likely to occur, on average, up to five times over the two-year period.

The Group conducts backtesting of the VaR risk measurement model against:

- The theoretical profit and loss representing the change in the value of the portfolio assuming that the portfolio holdings remain constant for the holding period.
- The actual profit and loss representing the actual daily trading outcome from price moves only (excluding fees, commissions, provisions, net interest income (NII) and the time value of money), as required for regulatory backtesting purposes.

Stressed value at risk (sVaR)[1]

The sVaR is an estimate of the potential loss arising from a 12-month period of significant financial stress. The sVaR internal model is approved by the PA to calculate the RC for all trading book exposures, including certain banking book exposures. The PA assigned a sVaR model multiplier to be used in the calculation of RC. The sVaR methodology is the same as that used to calculate VaR, but is based on inputs calibrated to historical data from the chosen 12-month stress period. A regular process is applied to assess the stress period most relevant to the Bank's portfolio in accordance with the approved methodology. The sVaR RC requirement is calculated daily and is disclosed for the reporting period. Regulatory coverage and reporting of sVaR follows the same approach as VaR (refer to the disclosure above). The sVaR historical period remained 2008/2009. The PA notified banks in July 2020 that they had until March 2021 to change the sVaR period, incorporating the Covid-19 pandemic induced volatility into the assessment. The market risk team is currently assessing the impact of the Covid-19 pandemic on sVaR to determine whether the sVaR period should be changed to incorporate this period of market volatility.

Stress testing

Stress testing provides an indication of the potential size of losses that could occur in extreme conditions. Stress testing assists in identifying risk concentrations across business lines and assists senior management in making capital planning decisions. The Group performs two main types of stress/scenario testing:

- Risk factor stress testing is conducted by applying historical stress moves to each of the main risk categories (including interest rate, equity, foreign exchange, commodity and credit spread risks) and is an estimate of potential losses that might arise from extreme market moves or scenarios to key liquid and illiquid risk factors.
- The trading book is subjected to multi-factor scenarios that simulate past periods of significant market disturbance and hypothetical extreme, yet plausible, events that may impact the market risk exposure across liquid and illiquid risk factors at the same time.

These are reported based on the concurrent aggregation of all risk factors including cross-risk factor effects. Scenarios are reviewed at least annually. A full revaluation approach is applied to undertake stress testing for South Africa's trading books and a sensitivity-based approach is used for ARO. The results are monitored against approved limits and thresholds.

Tail risk metrics

Tail risk metrics highlight the risk beyond the percentile selected for VaR. The two tail risk metrics chosen for daily monitoring, using the current portfolio and two years of unweighted historical market moves, are:

- The average of the worst three hypothetical losses from the historical simulation.
- Expected shortfall (also referred to as expected tail loss). This is the average of all hypothetical losses from the historical simulation beyond the 99th percentile used for the VaR.

1 Based on the square root of time rule.

2 It is assumed the distribution of historical returns is the same as the distribution of future returns.

5. Traded market risk

Risk sensitivities and exposures

The risk sensitivity reporting covers non-statistical measures for calculating and monitoring risk sensitivities and exposures as well as gross notional limits, issuer risk limits and concentration exposure where appropriate. All asset classes and product types have risk sensitivity reporting and limit monitoring. These limits are aligned to VaR limits, but do not bear a direct linear relationship.

SA

General risk for ARO is quantified using standardised rules. In particular, the maturity method is used to quantify general interest rate risk. In addition, the regulatory SA is used to calculate RC for any new products awaiting regulatory IMA approval in South Africa.

During the year, the Group changed the capitalisation of funding and credit valuation adjustments under the market risk framework. CVA hedges were removed from the IMA and are now capitalised under the SA net of the underlying CVA sensitivities.

Issuer-specific risk is currently reported in accordance with the regulatory SA calculated as a standalone charge.

Aggregation for capital calculation purposes

The Group uses the IMA to calculate capital for all products for which the PA granted approval. New products, or products for which PA approval has not been obtained, are capitalised under the SA for general risk.

Specific risk is calculated using the SA for all entities.

RC is calculated as a simple summation of the IMA and SA capital charges. No diversification between the methodologies is permitted.

5.3.2 Governance

5.3.2.1 Structure

Traded market risk is structured by asset class for South Africa and geographically for ARO with assigned analysts responsible for ensuring trading activity occurs within approved limits and that VaR results are accurate. The PRO for traded market risk is responsible for oversight of all traded market risk across the Group.

The traded market risk function interacts daily with the product control group (reporting into the CIB Chief Financial Officer and responsible for daily profit and loss, profit and loss attribution and independent price testing), the front office traders and desk heads and credit risk or country risk analysts (where appropriate). Daily reports are sent to the CIB CRO and front office detailing limit utilisation, limit breaches, VaR/sVaR and commentary, where relevant.

The TMRC provides oversight of the Group's traded market risk profile and reports into the ERC. The TMRC has the capacity and mandate to act as a forum where committee members ensure that both risk coverage and limit frameworks remain appropriate.

The GCRO presents the Group's traded market risk profile, alongside the other risk types as specified by the ERMF, to the GRCMC.

5.3.2.2 Committees

Traded market risk committees operate at business unit and group-level. These committees set secondary limits and review actual exposure from positions, risks, stresses, EC, EaR, RWA and capital across all asset classes against these limits. A risk summary is then presented at the TMRC including the risk profile report tabled at the GRCMC meeting.

5. Traded market risk

The key committees involved in the governance of market risk are depicted below:

5.3.3 Reporting

5.3.3.1 Risk reporting: Traded market risk

The Group's market risk function produces several daily and monthly market risk reports. The reports detail the positions, sensitivities and exposures, stress testing losses, VaR/sVaR, RWA and capital across all asset classes for the trading book. A risk summary is also presented at the TMRC and other governance committee meetings, as required, including the risk profile report tabled at the GRCMC meeting.

Market risk under SA [MR1]

		a 2020 RWA Rm	a 2019 RWA Rm
	Outright products		
1	Interest rate risk (general and specific)[1]	16 686	17 213
2	Equity risk (general and specific)	35	372
3	Foreign exchange risk	1 208	955
4	Commodity risk	-	-
	Options		
5	Simplified approach	-	-
6	Delta-plus method	213	-
7	Scenario approach	-	-
8	Securitisation	-	-
9	Total	18 142	18 540

[1] General and specific risks are calculated separately as standalone charges without diversification.

5. Traded market risk

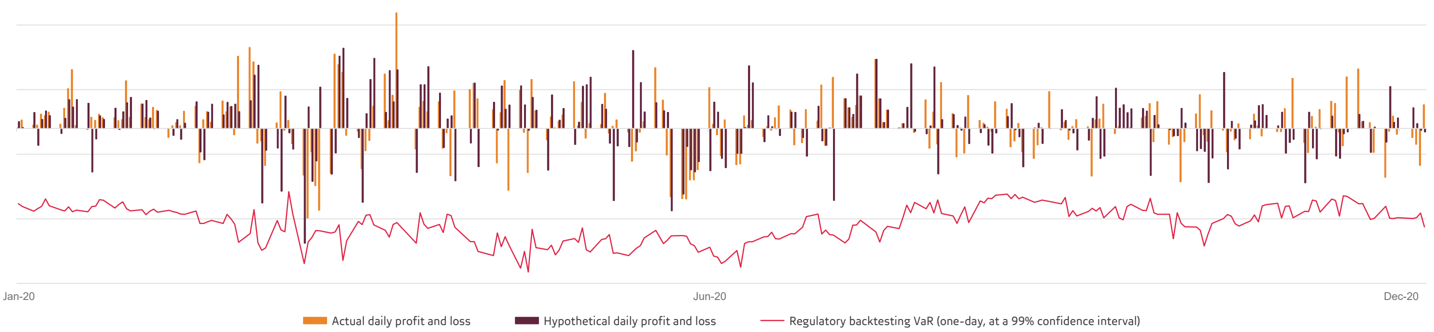
Traded market risk under the IMA

This section relates to the trading books for which IMA approval is in place for the current and previous reporting period.

Comparison of VaR estimates with trading revenues

The following graph compares the total VaR estimates over a one-day holding period at a 99% confidence level with the daily revenues generated by the trading units. Actual profit and loss includes fair value adjustments and reserves, which relate to instruments held at fair value according to IFRS 13, but excludes new deals, intra-day trading profit and loss, commissions and fees. Hypothetical profit and loss is calculated by the risk system holding positions static and revaluing them using the change in market rates, prices and volatilities across two days.

The Group's trading book revenue backtested against regulatory VaR (Rm) [MR4]



Profit and loss volatility increased during the period due to market movements linked to the Covid-19 pandemic and decreased liquidity in most markets. While there were no backtesting breaches at Group level, a number of breaches occurred at an individual trading desk level as expected during this period of extreme volatility.

RWA flow statements of market risk exposures under IMA [MR2]

		a	b	c	d	e	f
		2020					
		VaR Rm	sVaR Rm	IRC[1] Rm	CRM Rm	Other Rm	Total RWA Rm
1	RWA at previous quarter end	8 601	14 585	-	-	-	23 186
2	Movements in risk levels	(596)	(382)	-	-	-	(978)
3	Model updates/changes	(59)	(181)				(240)
4	Methodology and policy						
5	Acquisitions and disposals)						
6	Other						
7	RWA at end of reporting period	7 946	14 022	-	-	-	21 968

[1]IRC: incremental risk charge.

5. Traded market risk

		a	b	c	d	e	f
				2019			
		VaR Rm	sVaR Rm	IRC[1] Rm	CRM Rm	Other Rm	Total RWA Rm
1	RWA at previous quarter end)	7 705	14 274	-	-	-	21 979
2	Movements in risk levels	(1 334)	47	-	-	-	(1 288)
3	Model updates/changes						
4	Methodology and policy						
5	Acquisitions and disposals)						
6	Other						
7	RWA at end of reporting period	6 370	14 321	-	-	-	20 691

IMA values for trading portfolios [MR3]

		a	a
		2020 Rm	2019 Rm
VaR (10 day 99%)[2]			
1	Maximum value	345	268
2	Average value	199	162
3	Minimum value	104	115
4	Period end	210	145
Stressed VaR (10 day 99%)[1]			
5	Maximum value	502	540
6	Average value	335	313
7	Minimum value	202	188
8	Period end	330	319
Incremental risk charge (IRC) (99.9%)			
9	Maximum value	-	-
10	Average value	-	-
11	Minimum value	-	-
12	Period end	-	-
Comprehensive risk capital charge (99.9%)			
13	Maximum value	-	-
14	Average value	-	-
15	Minimum value	-	-
16	Period end	-	-
17	Floor (standardised measurement method)	-	-

[1] IRC: incremental risk charge.
[2] One-day VaR scaled to 10 days by multiplying the one-day VaR by square root of 10, same approach for sVaR.

5. Traded market risk

5.3.4 Additional disclosures

5.3.4.1 Analysis of market risk exposure

The following table reflects the VaR and expected shortfall statistics for trading book activities as measured by the IMA for general trading position risk:

Trading book management VaR summary[1]

	2020				2019			
	Average Rm	High[2] Rm	Low[2] Rm	At the reporting date Rm	Average Rm	High[2] Rm	Low[2] Rm	At the reporting date Rm
Interest rate risk	45.35	86.82	27.51	42.07	37.58	57.51	25.66	35.84
Foreign exchange risk	23.10	54.23	6.78	47.79	15.99	49.55	5.36	5.36
Equity risk	32.40	81.28	3.95	5.34	30.97	78.64	15.52	31.25
Commodity risk	1.39	4.36	0.26	1.30	1.09	4.02	0.23	1.03
Inflation risk	17.63	76.36	5.53	17.43	6.80	22.70	3.00	6.32
Credit spread risk	7.73	10.23	4.05	8.44	5.01	8.91	3.39	4.17
Diversification effect	(64.73)	(204.14)	(15.25)	(56.12)	(46.32)	(136.55)	(16.81)	(38.08)
Total VaR[3]	**62.87**	**109.14**	**32.84**	**66.27**	51.12	84.78	36.35	45.89
Expected shortfall	**90.68**	**49.59**	**150.12**	**97.37**	65.96	118.83	39.46	51.50
Regulatory VaR[4]	62.87	109.14	32.84	66.27	51.12	84.78	36.35	45.89
Regulatory sVaR[3]	106.01	158.90	63.86	104.31	98.84	170.88	59.34	100.88

- The increase in VaR was principally due to market volatility introduced to the model's historical time series resulting from the Covid-19 pandemic. This was further compounded by reduced liquidity in the market creating a challenging environment for the business to exit risk obtained through customer facilitation.
- The model performed well during the Covid-19 pandemic, showing an increase in VaR immediately after the March/April 2020 peak in market volatility. While backtesting breaches were registered on various individual desks, the diversified risk profile of the trading positions limited extreme losses at Bank and Group level.

[1] VaR at 99% confidence level and a two-year historical time series for businesses with IMA approval.

[2] The high and low VaR figures reported for each category did not necessarily occur on the same day as the high (and low) total VaR. Consequently, a diversification effect number for the high (and low) VaR figures would not be meaningful and is therefore omitted.

[3] The analysis includes trading books for which internal model approval was obtained.

[4] Regulatory VaR and sVaR are reported with a one-day holding period at a 99% confidence level. The sVaR period is subject to quarterly reviews for appropriateness.

6. Treasury risk

6. Treasury risk

Treasury risk is the risk and related constraints, which supports the effective management of the Group's financial resources, inter alia capital, liquidity and funding, that are critical to meeting the Group's strategic objectives. As such it comprises liquidity risk, capital risk, and interest rate risk in the banking book (IRRBB).

6.1 Overview of treasury risk management and key prudential metrics

The approach to managing treasury risk is aligned to the principles defined in the Enterprise Risk Management Framework. The second line of defence is responsible for preparing the policies that detail responsibilities, activities and governance arrangements for managing and mitigating treasury risk. It also sets the risk appetite and monitors the treasury risk profile for Group Treasury and first line of defence activities.

The Group Treasury Committee/ARO Treasury Committee review and approve the treasury risk appetite at least annually. In addition, treasury risk appetite statements classified as Board level are submitted to the Group GRCMC for review and recommended to the Board for final approval. The ERC reviews and approves allocations of treasury risk appetite to risk types, legal entities and business areas.

Risk metrics are forecast as part of the annual integrated planning cycle or when necessary to ensure that the Group has adequate financial resources to support its strategic objective. The metrics are monitored dynamically and in line with the nature of each of the underlying risks. Capital and liquidity buffers are informed by internal stress tests conducted by finance, treasury and risk functions to test the resilience of business, capital and funding plans against adverse events and scenarios, together with daily monitoring of active portfolios (e.g. the liquid asset portfolio and structural hedge).

Risk management and mitigation activities are monitored by the appropriate executive oversight committee and include:

- Proactive management of the amount, tenor and composition of capital and funding for strategy execution.
- Daily monitoring of active portfolios (e.g. the liquid asset portfolio and structural hedge).
- Execution of hedging strategies to manage earnings volatility due to changes in interest rates.

6. Treasury risk

6.1.1 Key BCBS metrics (at consolidated Group level) [KM1]

In line with IFRS 9 requirements, effective 1 January 2018, the Group moved from the recognition of credit losses on an incurred loss basis to an EL basis. The Group elected to use the three-year transition period for phasing in the RC impact of IFRS 9, as afforded by Directive 5 issued by the PA. The table below reflects the capital and leverage position of the Group on a fully loaded basis, as well as on a transitional basis. This will be the last year with different results on a transitional basis.

		a	b	c	d	e
		31 December 2020	30 September 2020	30 June 2020	31 March 2020	31 December 2019
Available capital (Rm)						
1	CET1 transitional basis	102 496	104 119	102 818	103 450	100 637
1a	Fully loaded ECL accounting model	101 632	103 255	101 954	102 586	98 909
2	Tier 1 transitional basis	111 803	112 189	110 885	111 636	109 062
2a	Fully loaded ECL accounting model Tier 1	110 939	111 325	110 021	110 772	107 334
3	Total capital transitional basis	137 454	139 143	139 411	137 789	133 411
3a	Fully loaded ECL accounting model total capital	136 590	138 279	138 547	136 924	131 683
RWA (Rm)						
4	Total RWA transitional basis	915 061	921 129	935 766	939 800	870 406
4a	Fully loaded RWA	911 488	917 556	932 193	936 226	863 260
Risk-based capital ratios as a percentage of RWA (%)						
5	CET1 ratio transitional basis[1]	11.2	11.3	11.0	11.0	11.6
5a	Fully loaded ECL accounting model CET1	11.2	11.3	10.9	11.0	11.5
6	Tier 1 ratio transitional basis[1]	12.2	12.2	11.9	11.9	12.5
6a	Fully loaded ECL accounting model Tier 1 ratio	12.2	12.1	11.8	11.8	12.4
7	Total capital ratio transitional basis[1]	15.0	15.1	14.9	14.7	15.3
7a	Fully loaded ECL accounting model total capital ratio	15.0	15.1	14.9	14.6	15.2
Additional CET1 buffer requirements as a percentage of RWA (%)						
8	Capital conservation buffer requirement (2.5% from 2019)	2.5	2.5	2.5	2.5	2.5
9	Countercyclical buffer requirement[2]	-	-	-	-	-
10	Bank G-SIB and/or D-SIB additional requirements[3]	0.5	0.5	0.5	0.5	0.5
11	Total of bank CET1 specific buffer requirements (Row 8 + row 9 + row 10)	3.0	3.0	3.0	3.0	3.0
12	CET1 available after meeting the bank's minimum capital requirements[3]	3.7	3.8	3.5	3.0	3.6
Basel III leverage ratio						
13	Total Basel III leverage ratio exposure measure (Rm)	1 560 437	1 733 777	1 707 091	1 703 332	1 572 845
14	Basel III leverage ratio (%) (row 2 / row 13) transitional basis	7.2	6.5	6.5	6.6	6.9
14a	Fully loaded ECL accounting model Basel III leverage ratio (%) (row 2a / row13)	7.1	6.4	6.4	6.5	6.8
LCR [4]						
15	Total high-quality liquid assets (HQLA) (Rm)	213 637	235 845	215 229	176 982	182 093
16	Total net cash outflow (Rm)	177 135	169 516	169 966	146 514	135 510
17	LCR (%)	120.6	139.2	126.6	120.8	134.4
NSFR						
18	Total ASF (Rm)	933 882	951 963	952 906	928 531	866 368
19	Total RSF (Rm)	805 814	800 811	813 876	828 278	768 850
20	NSFR (%)	115.9	118.9	117.1	112.1	112.7

[1] The difference between the CET1, tier 1 and total capital ratio on a transitional basis and the fully loaded ECL CET1, tier 1 and total capital ratio is less than 5bps. Therefore, no difference is discernable.

[2] The countercyclical buffer is not required for banks in South Africa.

[3] SARB Directive 4/2020 requires the D-SIB add-on to be disclosed. Previously the disclosure of the D-SIB add-on was not a disclosure requirement. Comparatives have been restated to allow for better comparability with prior period disclosures.

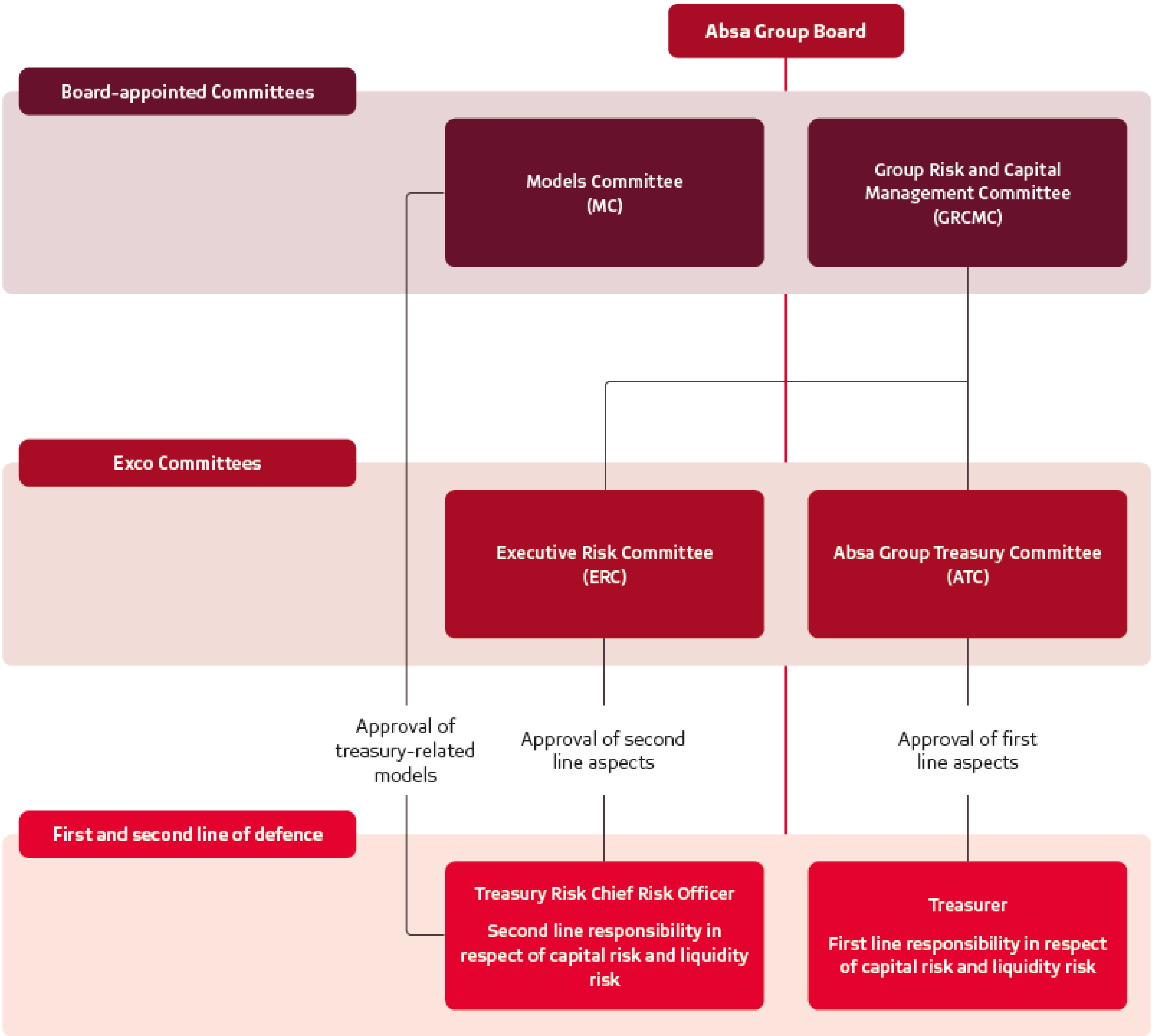
[4] The Group LCR reflects an aggregation of the Bank LCR and the ARO LCR. For this purpose, a simple average of the relevant three month-end data points is used for ARO. For the Bank, the LCR was calculated as a simple average of 90 calendar-day LCR observations.

6. Treasury risk

6.1.2 Governance

A set of policies and standards, with an overarching framework, is used with the ERMF to manage and govern treasury risks. The Treasury Risk Framework includes key control objectives that must be met. The liquidity, capital risk and interest rate risk in the banking book policies outline a minimum set of standards and requirements that should be maintained for the management of these risks, encompassing planning, limit setting, stress testing, contingency and recovery planning.

The committee structure used to govern decisions relating to treasury risk is outlined below:



6. Treasury risk

6.2 Liquidity risk

Liquidity risk is the risk that the Group is unable to meet its contractual or contingent obligations or that it does not have the appropriate amount, tenor and composition of funding and liquidity to support its assets.

6.2.1 Review of the current reporting period

Key risk metrics	2020	2019
Sources of liquidity (Rbn)	260.1	233.3
NSFR (%)	115.9	112.7
LCR (%)[1]	120.6	134.4
Loan-to-deposit ratio[2] (%)	86.2	87.5
Loans and advances to customers and banks (Rbn)	1 034.6	945.0
South Africa	891.4	826.1
ARO	143.2	118.9
Deposits from customers and banks (including debt securities) (Rbn)	1 199.9	1 080.1
South Africa	1 020.5	928.1
ARO	179.4	152.0

- Liquidity risk position:
  - The Group's liquidity risk position was resilient, in line with risk appetite and above the minimum regulatory requirements.
  - The Group's sources of liquidity increased to R260.1bn (2019: R233.3bn), amounting to 27.3% (2019: 28.2%) of deposits due to customers, demonstrating the strength of the Group's liquidity resources.
  - The increase in sources of liquidity was due to the Bank investing in alternative forms of HQLA as it reduced its reliance on the CLF, as the CLF is being phased out by the SARB over three years, from 1 December 2019.
  - Group treasury management worked closely with regulators and supervisory authorities in addressing market-wide liquidity constraints that arose at the onset of the Covid-19 pandemic during H1 2020. The Group maintained an excess supply of US dollars to ensure conservative management of foreign currency liquidity. Liquidity conditions improved significantly during H2 2020.
  - In line with the Group's long-term liquidity and funding strategy, core deposit growth from RBB and corporate clients was much faster than both asset growth and wholesale funding, resulting in both the liquidity profile and the NSFR strengthening.
  - All banking subsidiaries remained adequately liquid, maintaining compliance with Group Treasury standards, local liquidity risk appetite and regulatory reporting requirements. Furthermore, subsidiaries were self-sufficient from a local currency liquidity and funding perspective, and placed only limited reliance on Absa Bank for US dollar working capital.
- Long-term balance sheet structure:
  - Long-term funding was raised with appropriate tenor to support the growth in long-term assets. This was achieved through a combination of funding instruments and capital market issuances. However, overall wholesale funding growth was muted for the year given the strong growth in core deposits.
  - The cost of wholesale funding, as demonstrated by liquidity premiums, exhibited some volatility during the year. However, funding spreads declined over the reporting period.
  - Debt capital market issuances for 2020 amounted to R7.6bn (2019: R14.3bn) comprising of Tier 1 capital of R1.2bn, Tier 2 capital of R2.7bn and senior debt of R3.7bn.
- Short-term balance sheet structure and liquidity buffers:
  - Loan growth was funded by faster growth in customer deposits, ensuring a sustainable and diverse funding base. In addition, customer deposits were used to grow the HQLA portfolio.
  - The Group targeted LCR above the minimum regulatory requirement, and consistently maintained an HQLA buffer that exceeded the regulatory minimum requirement.
  - The Group used the internal liquidity stress metric (ILSM) framework to determine the amount of HQLA it was required to hold to meet internally defined stress requirements.
  - The Bank strengthened and diversified the liquid asset portfolio by investing in alternative forms of HQLA, thereby increasing average HQLA to R213.6bn (2019: R182.1bn).

[1] The Group LCR reflects an aggregation of the Bank LCR and the ARO LCR. For this purpose, a simple average of the relevant three month-end data points is used in for ARO. For the Bank, the LCR was calculated as a simple average of 90 calendar-day LCR observations.

[2] The methodology used to calculate the loan-to-deposit ratio includes loans and advances to banks and is based on average balances and not spot balances as disclosed per the Group financial statements.

6. Treasury risk

- Diversification:
  - The Group had a well-diversified deposit base and concentration risk was managed within appropriate guidelines.
  - Sources of funding were managed to maintain a wide diversity of depositors, products, tenors and currencies.
  - The Group's foreign currency funding position remained robust and flexible, with diversified funding facilities from international banks and appropriate tenors to meet term asset growth.

6.2.2 Priorities

- Preserve the Group's liquidity position in line with risk appetite.
- Focus on growing core retail, relationship bank, corporate and public sector deposits.
- Manage the funding and HQLA position in line with the Board-approved framework and ensure compliance with regulatory requirements.
- Maintain adequate liquidity buffers to ensure the Group complies with the LCR in accordance with the Covid-19-pandemic related relief provided by the SARB, while managing the CLF phase-out.
- Grow and diversify the funding base to support asset growth and other strategic initiatives, while optimising funding cost and complying with NSFR requirements.
- Collaborate with the regulatory authorities and other stakeholders on the SARB's proposed approach tor resolution planning and depositor insurance schemes in South Africa.

6.2.3 General information about liquidity risk [LIQA]

Liquidity risk is monitored at Group level under a single comprehensive Treasury Risk Framework. The Treasury Risk Framework was designed to deliver an appropriate tenor structure and composition of funding consistent with the risk appetite set by the Board. This framework is delivered through a combination of policy formation, review and governance, analysis, stress testing, limit setting and monitoring.

6.2.3.1 Risk identification and management

The efficient management of liquidity is essential for safeguarding the Group's depositors, preserving market confidence and maintaining the Group's brand. The Group considers sustainable access to appropriate liquidity for each of its entities to be extremely important. Liquidity risk is managed in line with the Treasury Risk Framework to:

- Maintain liquidity resources that are sufficient in amount and quality together with a funding profile that is appropriate to meet the risk appetite as expressed by the Board.
- Maintain market confidence.
- Set limits to control liquidity risk within and across lines of business and legal entities.
- Price liquidity costs accurately and incorporate these into product pricing and performance measurement.
- Set early warning indicators (EWIs) to immediately identify the emergence of increased liquidity risk or vulnerabilities including events that would impair access to liquidity resources.
- Fully project over an appropriate set of time horizons cash flows arising from assets, liabilities and off-balance sheet items.
- Maintain a recovery plan that incorporates a contingent funding plan (CFP) that is comprehensive and proportionate to the nature, scale and complexity of the business and regularly tested to ensure it is operationally robust.

The liquidity risk management processes are summarised in the table below:

Funding planning	Liquidity risk monitoring	Execution and intra-day liquidity risk	Contingent funding planning	Regulatory compliance
• Funding plan • Concentration risk • Customer behaviour • Pricing liquidity risk through funds transfer pricing	• Treasury framework and policies • Internal liquidity stress metric (ILSM) • Stress testing • Limits and metrics • Intra-day liquidity risk monitoring • Monitoring other contingent liquidity risks • New product review • Debt buyback monitoring	• Liquidity buffers • Funding execution • Daily clearing and settlement • Contingent liquidity risks in transaction documentation	• CLF • EWIs • Liquidity simulations • Contingency planning and Recovery planning	• Reserving • Liquid assets • Regulatory reporting • LCR • NSFR

6. Treasury risk

Funding structure

Funding is sourced from a variety of depositors representing a diversity of economic sectors, with a wide range of products and maturities.

Funding sources by product

The graphs below show the Group's funding sources:

NSFR

The NSFR aims to promote the resilience in the banking sector by requiring banks to maintain a stable funding profile in relation to the composition of their assets and off-balance sheet activities on an ongoing structural basis.

	Absa Group		Absa Bank	
	2020 NSFR Rm	2019 NSFR Rm	2020 NSFR Rm	2019 NSFR Rm
ASF (Rm)	933 882	866 368	775 802	715 846
RSF (Rm)	805 814	768 850	709 150	668 486
Actual NSFR (%)	115.9	112.7	109.4	107.1
Required NSFR (%)	100	100	100	100

Diversification

The Group maintained a well-diversified deposit base. Concentration risk is managed within appropriate guidelines. Sources of funding were managed to maintain a diversity of depositors, products, tenors and currencies.

The Group's foreign currency funding position remains robust and flexible, with diversified funding facilities from international banks and appropriate tenors to meet term asset growth.

Each geographic entity in the Group is required to ensure funding diversification is taken into account in its business planning process and to maintain a funding plan. This takes into account market conditions and the changes in factors that affect the entity's ability to raise funds.

Stress and scenario testing

Under the Treasury Risk Framework, the Group established the ILSM, which sets the level of liquidity risk the Group chooses to take to achieve its business objectives and in meeting its regulatory requirements. It is measured with reference to the anticipated stressed net contractual and contingent outflows for a variety of stress scenarios and is used to determine the appropriate size of the liquidity pool, along with the LCR.

Each entity in the Group undertakes a range of stress tests appropriate to its business. Stress tests consider both name-specific and market-wide scenarios. The results of the stress tests are used to determine the liquid asset buffer, to develop the CFP which is a component of the Group's recovery plan. Stress testing results are also considered when setting limits for the management of liquidity risk and the business planning process.

As part of stress and scenario testing, the relevant liquid assets portfolio serves as the main source of liquidity under stress. Liquidity value is also assigned to unsecured funding lines, readily marketable investment securities and price-sensitive overnight loans.

Contingency funding planning

Each banking entity in the Group maintains its own CFP, which includes, inter alia:

- The roles and responsibilities of senior management in a crisis.
- Authorities for invoking the plan.
- Communications strategy.
- An analysis of a realistic range of market-wide and Group-specific liquidity stress tests.
- Scenario analyses and the extent to which each stress test and scenario can be mitigated by the management of the balance sheet.
- A range of EWIs, which assist in informing management when deciding whether the CFP should be invoked.

6. Treasury risk

Each banking entity in the Group must establish local processes and procedures to manage local liquidity stresses that are consistent with the Group's plan. The CFPs set out the specific requirements to be undertaken locally in a crisis. This could include monetising the liquidity pool, slowing the extension of credit, increasing the tenor of funding and securitising or selling assets. For the Bank the CFP was merged with the recovery plan.

6.2.3.2 Reporting

Short-term liquidity stress

The Group's sources of liquidity

	2020 Rm	2019 Rm
Total Group sources of liquidity	260 137	233 315
HQLA[1]	192 892	169 452
Other liquid assets (ARO)	54 575	48 537
Other sources of liquidity	12 670	15 326

LCR[2]

The LCR aims to ensure banks maintain an adequate stock of HQLA to survive a significant stress scenario lasting 30 days. The LCR minimum requirement in 2018 of 90% increased by 10% on 1 January 2019 at which point the requirement reached 100%. The Group targets an LCR above the minimum regulatory requirement and consistently maintained a buffer above the minimum requirement during 2020. The Group's excess over minimum regulatory requirements for liquidity was increased by the relief measures provided by the SARB through the reduction of the minimum LCR from 100% to 80%. The table below represents the average LCR for the quarter:

	Group		Bank	
	2020	2019	2020	2019
	Rm	Rm	Rm	Rm
HQLA (Rm)	213 637	182 093	194 495	163 381
Net cash outflows (Rm)	177 135	135 510	153 208	116 773
LCR (%)	120.6	134.4	126.9	139.9
Required LCR (%)	80	100	80	100

HQLA

Each bank holds a stock of HQLA to meet any unexpected liquidity outflows. In the majority of locations, local regulators impose rules on the quantum of reserve liquidity to be held.

HQLA consists of cash and cash equivalents, deposits with central banks, government debt, and other qualifying instruments under the Basel III framework. Each entity in the Group maintains and demonstrates constant access to the relevant underlying asset market to avoid undue price movement if liquid assets need to be sold. Each operation ensures its buffer can be liquidated at short notice.

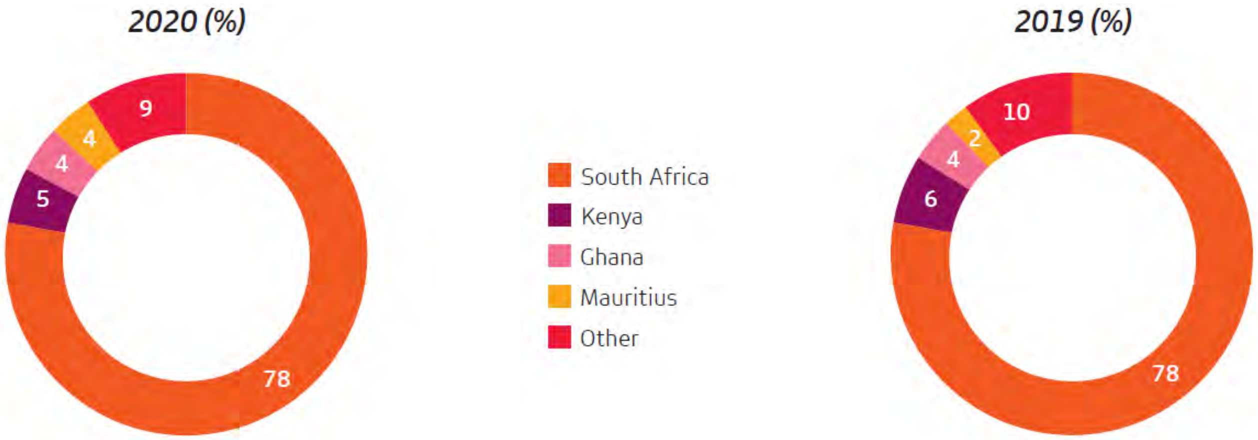
The Bank has access to a CLF from the SARB, which was included in HQLA. The CLF is being phased out by the SARB over three years, starting from 1 December 2019. In compliance with the CLF phase-out, the Bank reduced reliance on the facility while investing in alternative forms of HQLA, thereby increasing average HQLA to R213.6bn (2019: R182.1bn).

[1] The values disclosed represent the spot values of HQLA.

[2] The Group LCR reflects an aggregation of the Bank LCR and the ARO LCR. For this purpose, a simple average of the relevant three month-end data points is used for ARO. For the Bank, the LCR was calculated as a simple average of 90 calendar-day LCR observations.

6. Treasury risk

Composition of liquid assets by country (%)



6.3 Capital risk

Capital risk is the risk that the Group has an insufficient level or inappropriate composition of capital to support its normal business activities and to remain within its Board-approved capital target ranges under normal operating conditions or above regulatory capital requirements under stressed conditions.

6.3.1 Review of the current reporting period

Key risk metrics	2020	2019
Total RWA (Rbn)	915.1	870.4
CET1 capital adequacy ratio (%)[1]	11.2	12.1
EC coverage	1.5	1.5
Leverage ratio (%)[1]	7.2	7.2
Cost of equity (CoE) (%)[2]	14.0	13.75

- The Group's capital position was well above minimum regulatory requirements as at 31 December 2020 and at the lower end of the current Board target range of 11% to 12%.
- Capital ratios were lower year-on-year due to lower earnings during H1 2020, driven by higher impairments due to the impact of the Covid-19 pandemic. Ratios improved in H2 2020, due to improved earnings generation. Capital buffers remained strong, well above minimum regulatory requirements, at all times.
- The SARB reduced the minimum capital requirement by removing the Pillar 2A requirement of 100bps of capital at a total capital requirements level to accommodate the impact of current market conditions on bank capital ratios.
- The Group issued R2.7bn tier 2 capital instruments in February 2020, which qualified as regulatory capital at Group level. This was to replace the R2.5bn tier 2 capital instruments, which were called in February 2020.
- The Group issued R1.2bn tier 1 capital instruments in October 2020.
- All ARO entities were adequately capitalised above local minimum regulatory requirements, at all times.
- Methodology enhancements on the leverage ratio calculation resulted in refinements of credit conversion factors applied to undrawn facilities. This resulted in a reduction of leverage exposure.

6.3.2 Priorities

- The Board approved CET1 target range for 2021 will be 11% to 12.5%.
- The Group will seek to grow capital towards the middle of the Board target range of 11% to 12.5%, while resuming dividends for the 2021 financial year in line with regulatory guidance to the industry as informed by Guidance Note 3 of 2021.
- Monitor and assess upcoming regulatory developments that may affect the capital position. These include the Basel III enhancements, including FRTB; the proposed amendments to the regulations relating to banks; the resolution framework and the financial conglomerate supervisory framework in South Africa.
- Monitor and execute opportunities to raise tier 2 capital and/or additional tier 1 instruments in the domestic and/or international markets to optimise the level and mix of capital resources.

[1] Includes unappropriated profits.

[2] The CoE is based on the capital asset pricing model.

6. Treasury risk

6.3.3 General information about capital risk

6.3.3.1 Risk identification and management

The Group's capital management strategy, which supports and aligns with the Group's strategy, is to create sustainable value for shareholders within approved risk appetite through effective financial resource management.

The Group's capital management objectives are to:

- Maintain an adequate level of capital resources in excess of regulatory requirements and within capital targets, by optimising capital resources and raising capital where required.
- Ensure efficient deployment of capital to legal entities in the Group.
- Assess, manage and efficiently implement regulatory changes to optimise capital usage.

Various processes play a role in ensuring that the Group's capital management objectives are met, including ICAAP, stress testing and recovery and resolution planning.

6.3.3.2 Reporting

Capital adequacy

	Board target ranges[1]	Minimum RC requirements[2]	2020 Group performance	2019 Group performance	2020 Bank performance	2019 Bank performance
Statutory capital ratios (includes unappropriated profits) (%)						
CET1	11.00 – 12.00		11.2	12.1	10.6	11.9
Tier 1	12.00 – 13.00		12.2	13.0	11.9	13.1
Total capital adequacy requirement (CAR)	14.50 – 15.50		15.0	15.8	15.6	16.7
Leverage	5.00 – 7.00		7.2	7.2	5.7	6.0
Regulatory capital ratios (excludes unappropriated profits) (%)						
CET1		7.5	11.2	11.6	10.6	11.5
Tier 1		9.3	12.2	12.5	11.9	12.7
Total CAR		11.5	15.0	15.3	15.6	16.3
Leverage		4.0	7.2	6.9	5.7	5.7

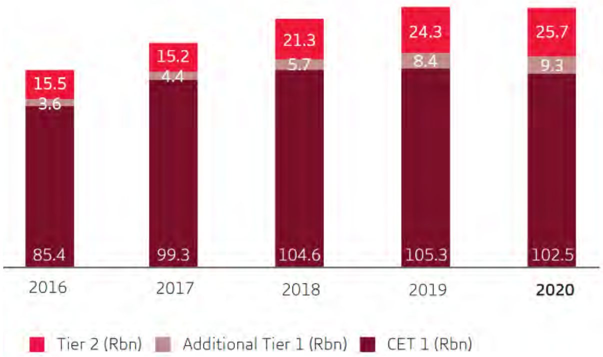
[1] Capital ratios (including unappropriated profits) are managed against Board capital target ranges.

[2] The 2020 minimum regulatory capital requirements of 11.5% (2019: 12.5%) includes the capital conservation buffer and the D-SIB add-on but excludes the bank-specific individual capital requirement (Pillar 2B add-on).

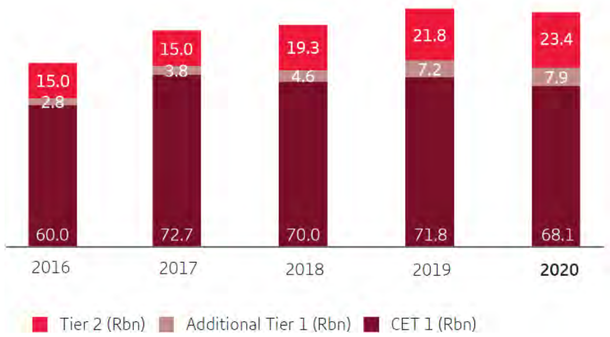
6. Treasury risk

Group qualifying capital (including unappropriated profits)

Group



Bank



Group[1] 2016	Group[1] 2017	Group[1] 2018	Group[1] 2019	Group[1] 2020		Bank 2016	Bank 2017	Bank 2018	Bank 2019	Bank 2020
12.1	13.5	12.8	12.1	11.2	CET1 ratio (%)	11.6	13.4	12.3	11.9	10.6
14.8	16.1	16.1	15.8	15.0	Total capital adequacy ratio (%)	15.1	16.9	16.5	16.7	15.6

Capital adequacy ratios of legal entities

Operations	Regulator	2020 Total qualifying capital Rm	2020 Tier 1 ratio %	2020 Total capital adequacy %	2020 Regulatory minimum %
Local entities (South Africa)					
Group	SARB				
Including unappropriated profits[2]		137 454	12.2	15.0	
Excluding unappropriated profits[2]		137 454	12.2	15.0	11.5[3]
Absa Bank[4]	SARB				
Including unappropriated profits[2]		99 410	11.9	15.6	
Excluding unappropriated profits[2]		99 410	11.9	15.6	11.5[3]
Foreign banking entities[5]					
Absa Bank Mozambique	Banco de Mozambique	1 280	18.3	18.3	12.0
Absa Bank Botswana	Bank of Botswana	4 103	13.1	19.3	12.5
Absa Bank Ghana	Bank of Ghana	3 745	17.2	19.2	11.5
Absa Bank Kenya	Central Bank of Kenya	6 973	14.7	17.5	14.5
Absa Bank Mauritius	Bank of Mauritius	6 256	19.0	20.1	14.0
National Bank of Commerce	Bank of Tanzania	1 756	15.6	17.6	14.5
Absa Bank Tanzania	Bank of Tanzania	837	17.6	19.0	14.5
Absa Bank Uganda	Bank of Uganda	2 061	21.5	24.8	15.5
Absa Bank Seychelles	Bank of Seychelles	426	13.0	17.6	12.0
Absa Bank Zambia	Bank of Zambia	1 380	12.3	18.1	10.0
Insurance entities					
Absa Life Limited	Prudential Authority	4 753		1.51xSCR[6]	1.0xSCR[6]
Absa Insurance Company Limited	Prudential Authority	1 133		1.65xSCR[6]	1.0x SCR[6]

[1] The historical normalised Group CET1 ratios were 11.8% in December 2019, 12% in December 2018 and 12.1% in December 2017 and the historical normalised Bank CET1 ratios were 11.4% in December 2019, 11.2% in December 2018 and 11.6% in December 2017.

[2] Includes the contribution amounts received from Barclays PLC as part of the separation.

[3] The SARB 2020 minimum regulatory requirement of 11.5% (2019:12.5%) include the RSA minimum of 8% (2019: 8%), Pillar 2a of 0% (2019:1%),capital conservation buffer of 2.5% (2019: 2.5%) but exclude the bank-specific individual capital requirement (Pillar 2b add-on).SARB Directive 4/2020 now requires the D-SIB add on to be disclosed which amounts to 1% (2019: 1%).

[4] The Bank includes subsidiary undertakings, special-purpose entities, joint ventures, associates and offshore holdings.

[5] The 2020 foreign banking entity disclosures are unaudited.

[6] Solvency capital requirement (SCR): calibrated to correspond to the VaR of an insurer's qualifying capital at a confidence level of 99.5% over a one-year period, as prescribed by the Solvency Assessment and Management (SAM) risk-based capital regime, which became effective on 1 July 2018.

6. Treasury risk

Capital adequacy ratios of legal entities

		2019		
Operations	Regulator	Total qualifying capital Rm	Tier 1 ratio %	Total capital adequacy %
Local entities (South Africa)				
Group	SARB			
Including unappropriated profits[1]		138 038	13.0	15.8
Excluding unappropriated profits[1]		133 411	12.5	15.3
Absa Bank[2]	SARB			
Including unappropriated profits[1]		100 783	13.1	16.7
Excluding unappropriated profits[1]		98 091	12.7	16.3
Foreign banking entities				
Absa Bank Mozambique	Banco de Mozambique	1 325	19.5	19.5
Absa Bank Botswana	Bank of Botswana	3 600	13.6	20.6
Absa Bank Ghana	Bank of Ghana	3 679	16.3	23.8
Absa Bank Kenya	Central Bank of Kenya	6 422	14.0	16.7
Absa Bank Mauritius	Bank of Mauritius	6 046	15.6	16.6
National Bank of Commerce	Bank of Tanzania	1 530	16.8	18.8
Absa Bank Tanzania	Bank of Tanzania	692	15.4	16.9
Absa Bank Uganda	Bank of Uganda	1 792	19.2	22.5
Absa Bank Seychelles	Bank of Seychelles	749	14.7	17.6
Absa Bank Zambia	Bank of Zambia	1 499	13.8	19.3
Insurance entities				
Absa Life Limited	Prudential Authority	5 323		1.54xSCR[3]
Absa Insurance Company Limited	Prudential Authority	1 200		1.94xSCR[4]

Capital supply

Breakdown of qualifying capital

	2020		2019	
Group	Rm	%[4]	Rm	%[1]
CET1	102 496	11.2	100 637	11.6
Additional tier 1 capital	9 307	1.0	8 425	0.9
Tier 1 capital	111 803	12.2	109 062	12.5
Tier 2 capital	25 651	2.8	24 349	2.8
Total qualifying capital (excluding unappropriated profits)	137 454	15.0	133 411	15.3
Qualifying capital (including unappropriated profits)				
Tier 1 capital	111 803	12.2	113 689	13.0
CET1 (excluding unappropriated profits)	102 496	11.2	100 637	11.6
Unappropriated profits[5]	-	-	4 627	0.5
Additional tier 1	9 307	1.0	8 425	0.9
Tier 2 capital	25 651	2.8	24 349	2.8
Total qualifying capital (including unappropriated profits)	137 454	15.0	138 038	15.8

[1] Includes the contribution amounts received from Barclays PLC as part of the separation.

[2] The Bank includes subsidiary undertakings, special-purpose entities, joint ventures, associates and offshore holdings.

[3] Solvency capital requirement (SCR): calibrated to correspond to the VaR of an insurer's qualifying capital at a confidence level of 99.5% over a one-year period, as prescribed by the Solvency Assessment and Management (SAM) risk-based capital regime, which became effective on 1 July 2018.

[4] Percentage of capital to RWAs.

[5] All profits in 2020 have been appropriated.

6. Treasury risk

Absa Bank[1]	2020 Rm	2020 %[1]	2019 Rm	2019 %[1]
CET1	68 051	10.6	69 118	11.5
Additional tier 1 capital	7 933	1.3	7 188	1.2
Tier 1 capital	75 984	11.9	76 306	12.7
Tier 2 capital	23 426	3.7	21 785	3.6
Total qualifying capital (excluding unappropriated profits)	99 410	15.6	98 091	16.3
Qualifying capital (including unappropriated profits)				
Tier 1 capital	75 984	11.9	78 998	13.1
CET1 (excluding unappropriated profits)	68 051	10.6	69 118	11.5
Unappropriated profits[2]	-	-	2 692	0.4
Additional tier 1	7 933	1.3	7 188	1.2
Tier 2 capital	23 426	3.7	21 785	3.6
Total qualifying capital (including unappropriated profits)	99 410	15.6	100 783	16.7

Economic capital adequacy

EC provides a common basis on which to aggregate and compare different risks using a forward-looking, single measure of risk. It is a critical input into the internal capital adequacy assessment process (ICAAP) and in capital allocation decisions, which supports shareholder value creation. EC considers risk types that not only lead to potential operating losses but can also result in lower-than-expected earnings.

In the table below, EC demand is presented at a 99.9% confidence level, aligned to the ERMF principal risks. EC demand is compared to the available financial resources (AFR), also referred to as EC supply, to evaluate the total EC surplus. The Group ensures there is sufficient AFR to meet this minimum demand requirement under severe yet plausible stress conditions.

Economic capital	2020 Rm	2019 Rm
Credit risk[3]	54 609	58 598
Traded market risk	3 906	4 512
Treasury risk	9 065	5 561
Insurance risk	6 448	3 807
Business risk	5 932	6 106
Model risk	2 723	-
Operational risk[4]	11 804	10 198
Total EC requirement	94 487	88 782
IFRS total EC AFR	137 347	133 126
IFRS total EC surplus	42 860	44 344
IFRS EC coverage ratio	1.5	1.5

Model risk EC was included within total EC requirement for the first time in 2020.

[1] Absa Bank Limited includes subsidiary undertakings, special-purpose entities, joint ventures, associates, and offshore holdings.

[2] All profits in 2020 have been appropriated.

[3] Credit risk includes equity risk, CCR, CVA and securitisation.

[4] Total operational risk includes fixed asset risk, non-customer assets and pension risk.

6. Treasury risk

6.4 Interest rate risk in the banking book (IRRBB)

IRRBB is the risk that the Group's current or projected financial condition and resilience might be adversely affected by changes in interest rate levels, yield curves and spreads. This risk arises in the banking book, due to re-pricing differences between assets, liabilities and equity, and also includes funding spread risk and foreign exchange rate risk.

6.4.1 Review of current reporting period

Key risk metrics	2020	2019
Banking book net interest income (NII) sensitivity for a 2% downward shock in interest rates (Rm)	(1 684)	(3 805)

- 2020 was a year of significant rate cuts by the SARB and ARO central banks in response to the weak macroeconomic environment. In addition, the Group benefited from significant growth in deposits and HQLA which contributed to increased hedging activities.
- These actions all contributed to the improvement in the Group NII sensitivity since December 2019. In addition, methodology changes to the measurement of risk were implemented that more closely align NII sensitivity to the financial outcome of recent rate cuts.
- The Group strategy remains focused on actively hedging its structural, fixed and margin risks to NII volatility and providing margin protection through the interest rate cycle. The majority of the residual risk, reflecting as NII sensitivity, related to items unviable to hedge. These items included Prime-Johannesburg Interbank Average Rate (JIBAR) basis risk in South Africa and short-term reset risks.

6.4.2 Priorities

- Active management of interest rate risk within risk appetite.
- Deliver margin stability through risk management processes, such as the structural hedge programme in South Africa, and through appropriate asset and liability management processes in ARO.
- Adopt the BCBS standard on IRRBB, due to be implemented in South Africa by June 2022, as well as ongoing modelling and process enhancements.
- Prepare and transition to the new risk-free rates that have replaced or will be replacing certain benchmark interest rates, such as interbank offered rates, as part of global and South African benchmark reforms.

6.4.3 General information about IRRBB [IRRBBA]

IRRBB is the risk that the Group's financial position might be adversely affected by changes in interest rate levels, yield curves and spreads. This risk arises in the banking book due to repricing differences between assets, liabilities and equity, originating from the provision of retail and wholesale banking products and services (considered core banking activities), together with certain rate-insensitive exposures in the balance sheet. This risk impacts both the earnings and economic value of the Group.

The Group's objective for the management of IRRBB is to ensure a higher degree of interest rate margin stability and reduced interest rate risk over an interest rate cycle. This is achieved by transferring the interest rate risk from the business to local treasury or Group Treasury, which is mandated to hedge material net exposures with the external market. This allows risk to be managed centrally and holistically for the Group.

These risk positions are managed mainly through the use of derivative instruments such as interest rate swap, or appropriate balance sheet optimisation. Residual interest rate risk may remain in treasury due to risks that are not viable to hedge in external markets. A limit framework is in place to ensure that the retained risk remains within approved risk appetite.

The techniques used to measure and monitor IRRBB include:

- Repricing profiles
- Annual earnings at risk (AEaR)/NII sensitivity
- VaR and other tail metrics
- Economic capital
- Economic value of equity (EVE) sensitivity
- Stress testing

VaR, supporting metrics and stresses are reported daily for Group Treasury and the ARO businesses, with the exception of two businesses where reporting is done monthly. The repricing profiles, AEaR, EVE sensitivity and stress results are reported monthly for both Group Treasury and ARO. Limits are set and monitored through the formal governance process.

Repricing profiles

To generate repricing profiles, instruments are allocated to time periods with reference to the earlier of the next contractual interest rate repricing date and the maturity date. The repricing profiles considers the assumed behavioural profile of structural product balances.

AEaR/NII sensitivity

AEaR/NII sensitivity measures the sensitivity of NII over the next 12 months to a specified shock in interest rates. AEaR is monitored against approved internal limits. Foreign exchange risk arising on the banking book is transferred from business to treasury and hedged in the external market.

VaR

VaR calculated at a 95% confidence level is used for measuring IRRBB risk. The VaR is monitored against approved internal limits and is used as a complementary metric to AEaR. The VaR is supplemented by non-VaR, stress and tail metrics.

6. Treasury risk

EVE sensitivity

EVE sensitivity measures the sensitivity of the present value of the banking book at a specific point in time to a specified shock to the yield curve. EVE sensitivity is measured against regulatory guidelines and not against approved internal limits.

Stress testing

Stress testing is tailored to each banking book and consists of a combination of stress scenarios and historical stress movements applied to the respective banking books.

Impact on earnings

The following table depicts the impact on AEaR/NII for 100 and 200bps up and down movements in market interest rates for the Group's banking books. Assuming no management action is taken in response to market interest rate movements, a hypothetical, immediate and sustained parallel decrease of 200 bps in all market interest rates would, at the reporting date, result in a pre-tax reduction in projected 12-month NII of R1.68bn (2019: R3.80bn). A similar increase would result in an increase in projected 12-month NII of R1.20bn (2019: R3.46bn). On this basis, AEaR expressed as sensitivity to a 200bps parallel decrease in all market interest rates decreased to 3.4% of the Group's NII.

AEaR for 100 and 200bps changes in market interest rates

	2020			
	200 bps decrease	100 bps decrease	100 bps increase	200 bps increase
South Africa[1] (Rm)	(857)	(438)	267	533
ARO[2] (Rm)	(827)	(399)	335	669
Total (Rm)	(1 684)	(837)	602	1 202
Percentage of the Group's NII (%)	(3.4)	(1.7)	1.2	2.5
Percentage of the Group's equity (%)	(1.3)	(0.6)	0.5	0.9

	2019			
	200 bps decrease	100 bps decrease	100 bps increase	200 bps increase
South Africa[1] (Rm)	(3 171)	(1 415)	1 467	2 928
ARO[2] (Rm)	(634)	(317)	317	634
Total (Rm)	(3 805)	(1 732)	1 784	3 462
Percentage of the Group's NII (%)	(8.2)	(3.7)	3.8	7.7
Percentage of the Group's equity (%)	(3.0)	(1.3)	1.4	2.8

[1] Includes exposures held in the CIB banking book.

[2] ARO interest rate sensitivities are shown on a 100% (rather than actual) shareholding basis.

7. Operational risk

7. Operational risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

7.1 Review of current reporting period

Key risk metrics	2020	2019
Total operational risk losses as a percentage of gross income (%)	0.36	1.03
Total operational risk losses (Rm)	292	824
Total operational risk RWA (Rbn)	143.4	140.5
Operational risk (Rbn)	117.2	112.3
Non-customer assets (Rbn)	26.2	28.2

- Operational risk losses as at 31 December 2020 were R292m, a decrease of R532m (65%) primarily due to a decrease in fraud-related losses.
- Key achievements in the period include:
  - Improvement in the Group's fraud defences through deployment of technology, increased resourcing and refinement of the fraud operating model.
  - Improved the management of processes, most notably in the progression of risk assessments over critical processes.
  - Prioritised employee wellness, including the impact of the Covid-19 pandemic.
  - Embedded improvements to the procurement operating model, processes and technology.
  - Implemented a new advanced measurement approach (AMA) model for operational risk regulatory capital.

7.2 Priorities

- Further strengthen the Group's fraud defences through investment in automation, analytics and technologies.
- Continue enhancement of process management capabilities through deployment of infrastructure (people, process and technology) to manage the process value chain.
- Enhance the toolset used in the management of operational risk, emphasising digitalisation of risk management and measurement processes.
- Automate the execution of the AMA operational risk regulatory capital model.

7.3 General information about operational risk

Operational risk occurs in the natural course of business activity. Therefore, it is not possible to eliminate all operational risk exposure. Operational risk is recognised as a principal risk type and the Operational Risk Management Framework (ORMF) establishes a set of inter-related quantitative and qualitative tools and processes to identify, assess, measure, mitigate, monitor and remediate risks within a defined appetite.

The leveraging of operational processes and capabilities is pivotal to the achievement of the Group's strategy and objectives and the management of operational risk aims to ensure these processes and capabilities are safeguarded and resilient.

7.3.1 Approach to the management of operational risk

The Group's objectives in the management of operational risk are to:

- Articulate an appropriate level of risk appetite for operational risk, which supports the business strategy.
- Manage risk and control effectively, thus maintaining the operational risk profile within appetite.
- Embed a positive risk culture across the organisation.
- Minimise the impact of losses suffered in the normal course of business (expected losses) and to avoid or reduce the likelihood of suffering an extreme or unexpected loss.

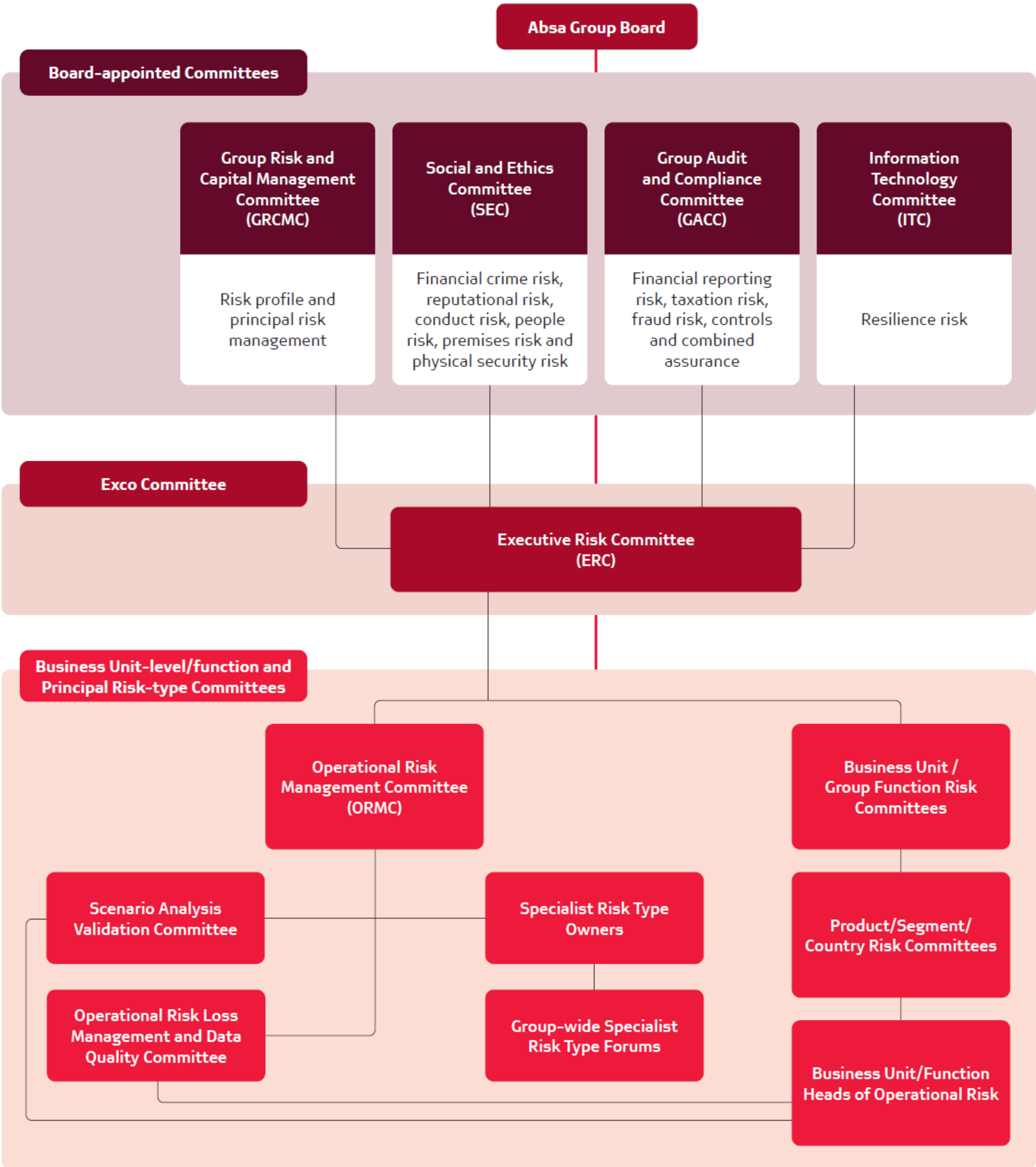
The management of operational risk aligns to the three lines of defence model as set out in the ERMF with the primary responsibility (i.e. first line of defence) for the management of operational risk residing with the business and infrastructure functional units where the risk arises. The heads of these business and infrastructure functional units are required to implement appropriate organisational structures and processes in line with the ORMF to identify, assess, measure, mitigate, monitor and remediate risks in their respective areas within an agreed appetite. Business-aligned operational risk heads (second line of defence), reporting to the business unit CROs, are responsible for risk management of their respective portfolios within risk appetite in line with the ORMF.

Enterprise-wide specialist risk type owners (second line of defence), reporting to PROs define the risk type strategy and framework and facilitate the group-wide governance to effectively enable risk type appetite, aggregation of risk type profiles, oversight and challenge processes. Group operational risk (second line of defence) is accountable for the Group-wide management of operational risk, establishing strategic direction and Group risk appetite, ownership of the ORMF and its supporting policies and enterprise-wide standards, and independent oversight over businesses and functions.

7. Operational risk

7.3.2 Governance of operational risk

The key committees involved in the governance of operational risk are depicted below:



The GCRO appoints the Operational Risk PRO, who is accountable for the design, implementation and maintenance of an effective, efficient and regulatory compliant ORMF.

A Group Operational Risk Management Committee (ORMC) chaired by the PRO is in place providing an aggregation and challenge viewpoint of the Group's operational risk profile across the three lines of defence prior to submission to the ERC. Additionally, it serves as the vehicle to drive development, implementation and embedment of the framework, policies and Group-wide standards.

The GCRO presents the Group's operational risk profile, alongside the other risk types as specified by the ERMF, to the GRCMC, as well as the GACC.

7. Operational risk

Business and infrastructure functional unit risk committees monitor risk management and control effectiveness, with progress reporting to the ERC by the respective executive.

7.3.3 Management of operational risk

The suite of risks considered within the remit of operational risk include:

- Fraud
- Payment
- Process management
- People
- Premises
- Supplier
- Financial reporting
- Taxation
- Legal

While conduct, reputational, financial crime, sustainability and resilience (including technology, physical security, projects change, business continuity, data management, information security and change) risks are managed individually, they are eventually incorporated into operational risk for capital requirement measurement.

To address the wide remit of operational risk, the ORMF establishes a suite of management techniques applicable to its underlying risk types. These include:

7.3.3.1 Critical process assessments (CPAs)

CPA is an integrated assessment that enables the Group to focus on processes which are essential to executing on strategy and delivering for customers and stakeholders. This approach ensures that material risks and rewards are holistically understood and decisively managed, resulting in consistent monitoring of the operational risk profile in the context of business objectives and appetite. It requires the assessment of risks and controls in critical processes on an end-to-end basis, enabling a view across functions and supporting enablers, such as systems and suppliers. This approach promotes performance and service efficiencies through using key indicators that monitor risks, controls and process performance.

Further, a comprehensive understanding of all business enablers is obtained by considering all supporting dependencies and the end-to-end resilience of processes and capabilities. CPA enables management of the prioritised enablers and a focus on the most material risks and key controls. The outcome of CPA is a consolidated view of all material risks in the critical business processes and information on the drivers of risk, such as risk events, root causes, indicators, issues and management responses.

7.3.3.2 Internal risk events

An operational risk event is any circumstance where there is a potential or actual impact to the Group resulting from inadequately controlled or failed internal processes, people and systems, or from an external event. The definition includes situations where a loss could have been incurred, but a gain was realised, as well as incidents resulting in customer, legal, reputational, conduct or regulatory impacts. Operational losses incurred from internal risk events must be captured on the Group operational risk management system. Boundary events, such as operational risk materialising within credit risk, are also tracked. The analysis of internal risk events assists the Group in identifying areas of improvements to processes or controls, to reduce the likelihood of recurrence and/or magnitude of risk events.

The analysis of risk events assists the Group in identifying control deficiencies to prevent future losses. In addition, it aids monitoring of a changing risk.

7.3.3.3 External risk events

Applicable external loss information is regularly considered to support and inform risk identification, assessment and measurement, and provide management with insight into possible emerging risks. External data is used to provide insight into the magnitude of events/losses emanating from scenarios and risks which Absa has never experienced and are complex to quantify. The Group's primary source of external data is through membership of the Operational Risk Data Exchange (ORX), a non-profit association of international banks formed to share anonymous loss data information.

7.3.3.4 Risk mitigation

It is not always possible or cost effective to eliminate all operational risks, nor is this the objective of operational risk management. Achieving the correct balance of focus and effort is pivotal to the Group's operational risk management strategy. This is underpinned by a defined risk appetite, established governance and oversight structures, monitoring and escalation criteria, clarity of roles across the three lines of defence and clear direction and tone from the top driving a transparent and accountable risk culture in the organisation.

The mitigation of residual risks (i.e. risks post-consideration of existing controls), depending on their likelihood and impact, is achieved by one or a combination of the following responses:

- **Accept:** Maintain the control environment.
- **Mitigate the risk:** Implement actions and strategies to reduce the residual risk level to within acceptable levels.
- **Avoid the risk:** Do not take the risk and stop the related activity.
- **Transfer the risk:** This involves a third party sharing some part of the risk, or taking over all of the risk. This could be in the form of insurance, partnerships or joint ventures.

7.3.3.5 Lessons learnt reviews

Lessons learnt is a targeted root cause analysis of significant risk events experienced in the Group with the outcomes of such reviews including:

- Establishing what went wrong.
- Early detection and prevention of systemic issues.
- Address of thematic concerns.
- Determining whether cultural, operating model, governance or risk practices may have contributed to the risk event.

This process enables sustained and shared learning across the organisation, promoting stronger risk management.

7. Operational risk

7.3.3.6 Key indicators

Key indicators are metrics used to monitor the Group's operational risk profile. They include measurable thresholds that reflect the risk appetite of the business and are designed to monitor risk, control and business factors that influence the operational risk profile. Key indicators serve as alerts to management when risk levels exceed acceptable ranges and drive timeous decision-making and actions.

7.3.4 Measurement of operational risk

The Group assesses its operational risk capital requirements using the AMA which involves estimating the potential range of losses that could be incurred in a year from operational risk events, using statistical distributions. The BIA or TSA is used in certain operations outside South Africa and joint ventures and associates where the Group is not able to apply the AMA model.

The potential frequency and severity of losses is estimated for each risk in the suite of operational risks (refer to 7.3.3) based on internal loss data, extreme scenarios (from the key risk scenario process) as well as external loss data from ORX. The capital calculation also considers the possibility of correlations between operational risk losses occurring in a year.

RC requirements are set to cover 99.9% of estimated unexpected losses with EC requirements covering estimated losses that exceed the expected losses.

7.3.4.1 Key risk scenarios

Key risk scenarios are a summary of the extreme potential risk exposure for each risk in the suite of operational risks (refer 7.3.3) and includes quantitative and qualitative assessments of the potential frequency of risk events, the average size of losses and extreme scenarios. The assessments consider internal and external loss experiences, key indicators, CPAs and other relevant risk information.

Factors incorporated into the analysis of potential extreme scenarios include:

- The circumstances and contributing factors that could lead to an extreme event.
- The potential financial and non-financial impacts (e.g. reputational damage).
- The controls and other mitigants that seek to limit the likelihood of such an event occurring, and the actions that would be taken if the event were to occur (e.g. crisis management procedures, business continuity or disaster recovery plans, etc.).
- The Bank redeveloped its AMA model (approved by the PA in May 2020) used for the calculation of regulatory and economic capital.
- The new AMA model and accompanying scenario analysis approach offers the following enhancements:
  - Improved linkage between internal risk performance and capital being held.
  - Direct incorporation of loss data into the model.
  - Increased number of distributions for tail losses.
  - Explicit modelling of intra-risk dependencies through copulas (diversification benefit).

7.3.5 Insurance

The Group utilises insurance to mitigate certain operational risks. However, it is not used to offset operational risk capital requirements. The cover and associated cost are regularly reviewed and are presented annually to the GRCMC.

8. Model risk

8. Model risk

Model risk is the risk of potential adverse consequences from financial assessments or decisions based on incorrect or misused model outputs and reports.

8.1 Review of current reporting period

- The Group continued to strengthen its capabilities to deliver robust models that support business decision making and regulatory capital calculations, with a particular focus on the wholesale regulatory capital PD, LGD and exposure at default (EAD) models. During 2020, seven new wholesale (of which one obtained Prudential Authority approval, with a further model approved in 2021) and three new retail regulatory capital models were submitted to the Prudential Authority.
- The model risk appetite statement was implemented in 2019 and adopted and rolled out at individual business unit level to effectively monitor model risk across the Group.
- The Group implemented a model risk management workflow solution to manage model risk and monitor the effectiveness of controls.
- A Model Risk Economic Capital (MREC) Framework was developed and implemented: The model risk EC was based on the risk assessment of the Group's models, in the context of its model risk appetite.

8.2 Priorities

- Continue redevelopment and/or recalibration of remaining wholesale regulatory capital PD and LGD models.
- Review the definition of default used for regulatory capital and impairment models in retail products to ensure alignment and comparability with local markets and regulations.
- Strengthen the function's capabilities to address increasing quantities of models, including prototyping artificial intelligence (AI) and machine learning models (for non-regulatory application) to align with external trends.
- Enhance model development and implement technology platforms.

8.3 General information about model risk

8.3.1 Risk identification and management

Model risk was identified as a principal risk to be managed under the ERMF, with specific guidelines set out in the Model Risk Management Framework, model risk appetite statement, GMRP and relevant standards covering model ownership, development, approval, implementation, monitoring and validation.

A model is a quantitative method, system or approach that applies statistical, economic, financial or mathematical theories, techniques, parameters and assumptions to process input data into outputs. It comprises inputs, parameters and calculations that produce outputs. A model is considered an end-to-end concept, including the sourcing of inputs, selection and specification of methodology, calibration of parameters, implementation of the model and the usage of the outputs.

The use of models invariably presents model risk, defined as the potential adverse consequences from financial assessments or decisions based on incorrect or misused model outputs and reports. Model risk may lead to financial loss, poor business and strategic decision-making, or damage to a bank's reputation.

This definition implies that model risk occurs primarily due to:

- The model being a poor representation of the real-world phenomenon being modelled and producing inaccurate outputs.
- The model being used incorrectly or inappropriately.

For ease of identifying and mitigating the sources of model risk, the above two components of model risk are referred to as model uncertainty (uncertainty as to how well the model represents the real-world phenomenon) and operational uncertainty (uncertainty as to the use and implementation of the model).

The model uncertainty component may be mitigated, but never truly eliminated, as one does not know the correct underlying model for the phenomenon, nor can one be certain whether the data available for model testing of the underlying phenomenon is a correct, unbiased and complete representation covering all possible situations. Further, any statistical tools used to quantify model uncertainty (e.g. confidence intervals) are sources of model uncertainty.

Model uncertainty is assessed in terms of how well the model represents the real-world phenomenon being modelled and whether the model's outputs are likely to overstate or understate the observed real-world phenomenon.

The operational uncertainty component is managed through an appropriate set of controls regarding model implementation and use. For models in scope of RDARR, an assessment of the RDARR controls is incorporated during the assessment of a model's operational uncertainty.

- Both the model uncertainty and operational uncertainty components are managed concurrently as part of the model lifecycle controls prescribed in the GMRP and associated standards.

The elements of model risk are assessed through evaluating critical controls and framework compliance:

- The Group model database (GMD) records the model inventory and tracks the elements of the model lifecycle.
- Model validation and approval, where the model performance is assessed relative to its objectives and for compliance with the governance framework.
- Model implementation controls.
- Model monitoring including backtesting.

Risk management

In support of the Model Risk Management Framework, model risk is governed and defined by the GMRP. The GMRP also establishes requirements for assessing model risk for all models in use; assigns clear responsibilities and accountabilities for the management of model risk; mitigates model risk through controlled model design, development, implementation, use and change processes; and institutionalises independent validation and approval of models. The GMRP is supported by standards addressing the requirements of the following:

- Model development and documentation
- Model validation
- Model materiality
- GMD and workflow
- Model monitoring
- Model implementation

8. Model risk

- Model owner review
- Post model adjustment
- Vendor models
- Machine learning

Model risk is managed within approved risk appetite and defined limits. Risk appetite is defined as the level of risk that the Group is prepared to accept given available capacity while pursuing its business strategy and recognising a range of possible outcomes as business plans are implemented.

As the Group does not actively seek model risk, its appetite is expressed in terms of risk tolerance thresholds and does not have a target range.

The PRO oversees the Model Risk Management Framework, established to manage model risk in accordance with the Group's model risk tolerance. In addition to policies and standards, the Model Risk Management Framework identifies risks and controls to establish a consistent approach to the management of model risk across the Group. Compliance to controls is assessed through key risk assessments (KRAs) and control testing is conducted to provide assurance around the effective design and operation of controls.

The second line of defence in relation to model risk comprises model risk governance (MRG), the independent validation unit (IVU) methodology and implementation control oversight. MRG establishes the framework, policy and standards to manage model risk, sets limits consistent with the Group's risk appetite and monitors performance of the model ownership areas against these limits. It also performs conformance reviews to provide assurance around control effectiveness.

IVU is responsible for independently validating each model and assessing whether it is fit for purpose. Models are validated and approved prior to use.

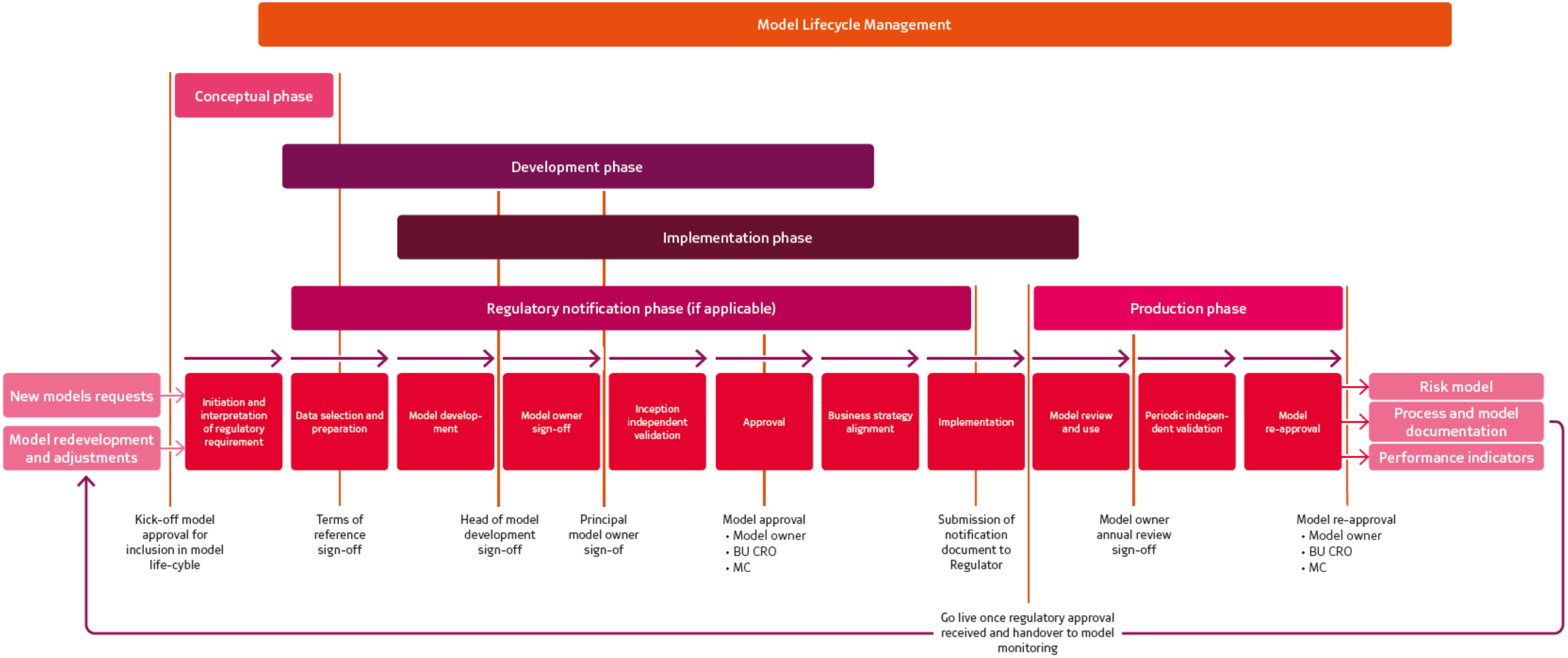
Model methodology assist with developing and aligning methodology for regulatory and impairment models across the Group.

Implementation control oversight monitors the accuracy of model implementations for regulatory and impairment reporting purposes.

8. Model risk

8.3.2 Governance

Model risk is managed throughout the model lifecycle. The model lifecycle and associated controls are depicted in the diagram below. These controls are in line with the GMRP.



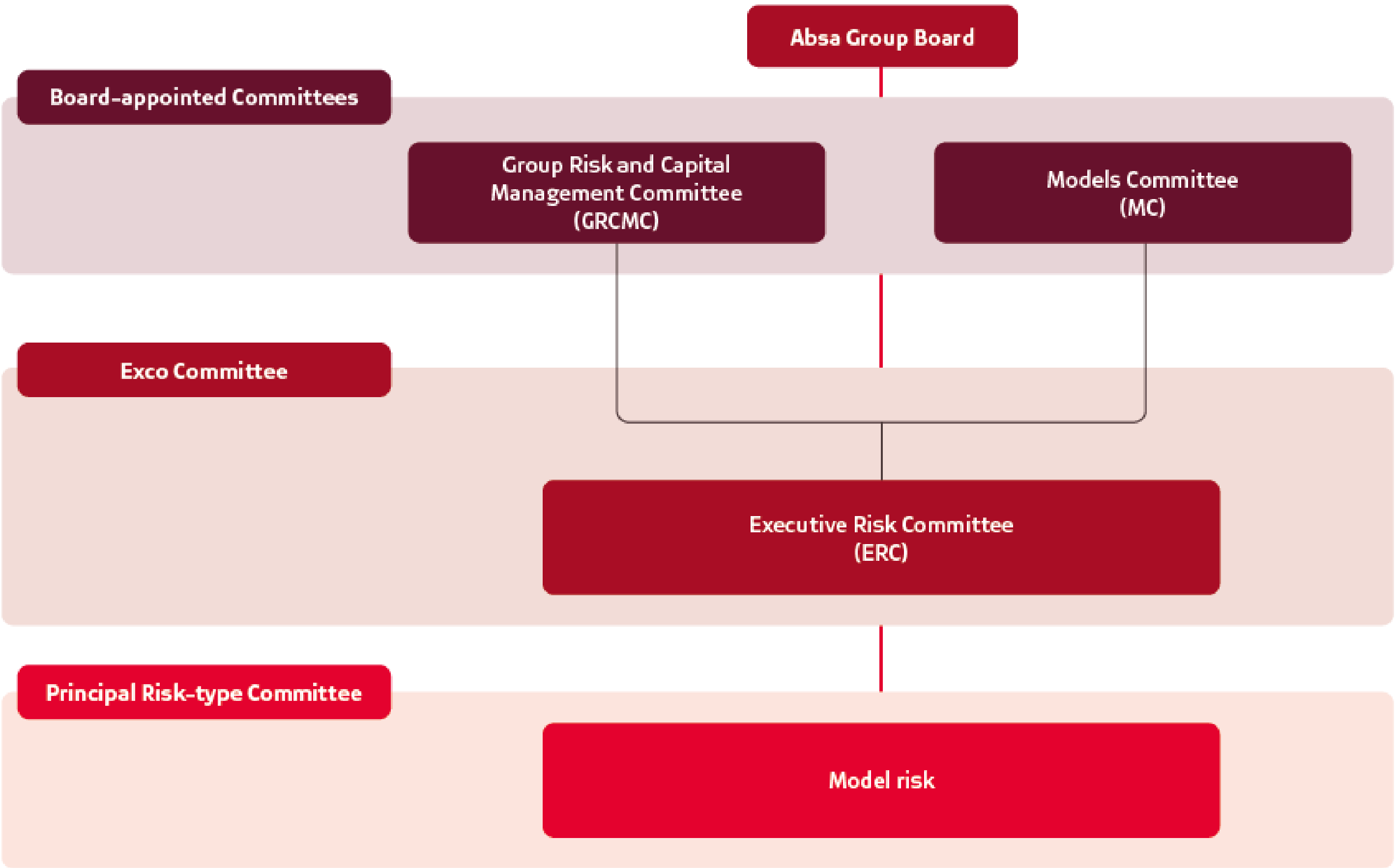
The GMRP sets out the accountabilities and controls pertaining to this risk, and relevant standards were developed for risk types. The GMRP identifies model approvers based on the materiality of models. Material models are designated by the MC (Board committee) for approval, and models of lesser materiality are approved by the business unit CROs through a model approval forum.

The scope of the GMRP includes models such as RC, EC, stress testing, impairment and scorecards for both the Bank and insurance businesses. Model risk controls were documented in KRAs and are tested annually.

In accordance with the GMRP, model ownership vests with the businesses that use the output of models to quantify risk. The business unit CRO takes responsibility for model approval and compliance with the policy.

8. Model risk

The key committees involved in the governance of model risk are depicted below:



8.3.3 Reporting

A monthly model risk report is produced and submitted to numerous committees attended by senior management, the MC and the ERC. The report focuses on:

- Progress on regulatory and other model development.
- Adherence to policy and standards including any model related audit findings and control issues.
- Models in governance coverage, i.e. models monitored, reviewed and validated.
- Model risk assessment (high, medium or low) including model uncertainty and operational uncertainty.
- Model risk appetite status.

The Group has approval to use the AIRB approach for all its South African credit portfolios except for the Edcon retail portfolio (which was on the SA until its sale to microlender, RCS, in February 2020). All the ARO credit portfolios are on the SA. The Group has PA approval for using the AMA for operational risk and the IMA for market risk.

The number of key credit models used with respect to PD, EAD and LGD in AIRB calculations is depicted below:

	2020			2019		
	PD	LGD	EAD	PD	LGD	EAD
Retail South Africa	8	8	8	8	8	8
Wholesale South Africa	13	4	2	13	4	2
ARO	-	-	-	-	-	-
Total	21	12	10	21	12	10

9. Abbreviations and acronyms

9. Abbreviations and acronyms

A

ACCC	Absa CIB Credit Committee
AEaR	annual earnings at risk
AFR	available financial resources
AI	artificial intelligence
AIRB	advanced internal ratings-based approach
AMA	advanced measurement approach
ARO	Absa Regional Operations
ASF	available stable funding
AVM	automated valuation model

B

Bank	Absa Bank Limited
Basel	Basel Capital Accord
BCBS	Basel Committee on Banking Supervision
BIA	basic indicator approach
bps	basis points

C

CAR	capital adequacy requirement
CCF	credit conversion factor
CCP	central counterparty
CCR	counterparty credit risk
CEM	current exposure method
CET1	common equity tier 1
CFP	contingent funding plan
CIB	Corporate and Investment Banking
CLF	committed liquidity facility
CLR	credit loss ratio
CoE	cost of equity
CPA	critical process assessment
CRM	credit risk mitigation
CRMF	Credit Risk Management Framework
CRO	Chief Risk Officer
CVA	credit valuation adjustment

D

D-SIBs	domestic systemically important banks
dpd	days past due
DT	downturn

E

EAD	exposure at default
EaR	earnings at risk
EC	economic capital
ECL	expected credit loss
Edcon	Edcon Store Card Portfolio
EEPE	effective expected positive exposure
EL	expected loss
ERC	Absa Group Executive Risk Committee
ERMF	Enterprise Risk Management Framework
EVE	economic value of equity
EWIs	early warning indicators
Exco	Executive Committee

F

FIRB	foundation internal ratings-based
FRTB	fundamental review of the trading book

G

GACC	Group Audit and Compliance Committee
GCC	Group Credit Committee
GCRC	Group Credit Risk Committee
GCCO	Group Chief Credit Officer
GCIC	Group Credit Impairment Committee
GCRO	Group Chief Risk Officer
GMD	Group model database
GMRP	Group model risk policy
GRCMC	Group Risk and Capital Management Committee
Group	Absa Group Limited
G-SIBs	global systemically important banks

H

HQLA	high-quality liquid assets

I

IAA	internal assessment approach
ICAAP	internal capital adequacy assessment process
IFRS	International Financial Reporting Standards
ILSM	internal liquidity stress metric
IMA	internal models approach
IMM	internal model method
IRB	internal ratings-based
IRBA	internal ratings-based approach
IRC	incremental risk charge
IRRBB	interest rate risk in the banking book
IT	information technology
ITC	Information Technology Committee
IVU	independent validation unit

K

KCI	key control indicator
KPI	key performance indicator
KRA	key risk assessment
KRI	key risk indicator

L

LCR	liquidity coverage ratio
LGD	loss given default
LR	long run

M

M	maturity
MC	Models Committee
MCA	management control approach
MRG	model risk governance

N

NII	net interest income
NPL	non-performing loan
NSFR	net stable funding ratio

O

ORMC	Operational Risk Management Committee
ORMF	Operational Risk Management Framework
ORX	operational risk data exchange
OTC	over-the-counter

9. Abbreviations and acronyms

P	
PA	Prudential Authority
PD	probability of default
PF	project finance
PFE	potential future exposure
PIT	point-in-time
PMAs	post-model adjustments
PnL	profit and loss
PQR	portfolio quality review
PRO	principal risk officer
PSEs	public sector entities
PVA	prudent valuation adjustments

Q	
QCCP	qualifying central counterparty

R	
RBA	ratings-based approach
RBB	Retail and Business Banking
RC	regulatory capital
RDARR	risk data aggregation and risk reporting
RemCo	Group Remuneration Committee
RMC	Risk Management Committee
RoE	return on equity
RoRWA	return on average risk-weighted assets
RSF	required stable funding
RW	risk-weight
RWA	risk-weighted assets

S	
SA	standardised approach
SA-CCR	standardised approach for counterparty credit risk
SAM	Solvency Assessment and Management
SARB	South African Reserve Bank
SC	Separation Oversight Committee
SCR	solvency capital requirement
SEC	securitisation
SFA	supervisory formula approach
SFTs	securities financing transactions
SME	small and medium-sized enterprises
SSFA	simplified supervisory formula approach
sVaR	stressed value at risk

T	
TLAC	total loss-absorbing capacity
TMRC	Traded Market Risk Committee
TSA	the standard approach
TTC	through-the-cycle

V	
VAF	vehicle and asset finance
VaR	value at risk

www.absa.africa

Contact information

Absa Group Limited

Incorporated in the Republic of South Africa
Registration number: 1986/003934/06
JSE share code: ABG
ISIN: ZAE000255915

Registered office

7th Floor, Absa Towers West
15 Troye Street, Johannesburg, 2001
PO Box 7735, Johannesburg, 2000
+27 11 350 4000
www.absa.africa

Head: Investor Relations

Alan Hartdegen
+27 11 350 2598

Group Company Secretary

Nadine Drutman
+27 11 350 5347

Head: Financial Control

John Annandale
+27 11 350 3946

Queries

Investor relations	ir@absa.africa
Media	groupmedia@absa.africa
Absa Group shares	web.queries@computershare.co.za groupsec@absa.africa
General queries	absa@absa.africa

Transfer secretary

Computershare Investor Services (Pty) Ltd
+27 11 370 5000
Computershare.com

Sponsors

Lead independent sponsor

J.P. Morgan Equities South Africa (Pty) Ltd
+27 11 507 0300

Joint sponsor

Absa Bank Limited (Corporate and Investment Bank)
+27 11 895 6843
equitysponsor@absacapital.com

Auditors

Ernst & Young Inc.
+27 11 772 3000
Ey.com/za/en/home