2021

basel pillar 3 disclosure

for the year ended 30 June

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Basel Pillar 3 disclosure

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FirstRand

1966/010753/06 Certain entities within the FirstRand group are authorised financial services and credit providers. This report is available on the group's website: **www.firstrand.co.za**
Email questions to investor.relations@firstrand.co.za

OVERVIEW OF THE FIRSTRAND GROUP

FIRSTRAND's portfolio of integrated financial services businesses comprises FNB, RMB, WesBank and Aldermore. The group operates in South Africa, certain markets in sub-Saharan Africa and in the UK, and offers a universal set of transactional, lending, investment and insurance products and services. FCC represents group-wide functions.

RISK MANAGEMENT OVERVIEW

INTRODUCTION

This risk and capital management report (Pillar 3 disclosure) covers the operations of FirstRand Limited (FirstRand or the group) and complies with:

> the Basel Committee on Banking Supervision's (BCBS's) revised Pillar 3 disclosure requirements (Pillar 3 standard); BCBS 309 (January 2015); and the consolidated and enhanced framework BCBS 400 (March 2017); as well as the BCBS technical amendment on the regulatory treatment of accounting provisions (August 2018); and

> Regulation 43 of the *Regulations relating to Banks* (Regulations), issued in terms of the Banks Act 94 of 1990; *Directive 1 of 2019, Matters related to Pillar 3 disclosure requirement framework* and all other Pillar 3 disclosure-related directives issued by the Prudential Authority (PA).

The table references used throughout the Pillar 3 disclosure are in accordance with the Pillar 3 standard, where required.

Some differences exist between the practices, approaches, processes and policies of FirstRand Bank Limited (FRB or the bank) and FirstRand's other wholly owned subsidiaries. These are highlighted by reference to the appropriate entity, where necessary. There is further distinction between FRB (which includes foreign branches) and FirstRand Bank Limited South Africa (FRBSA) (which excludes foreign branches). Refer to the *Simplified group structure* section on page 3. This report has been internally verified through the group's governance processes, in line with the group's external communication and disclosure policy, which describes the responsibilities and duties of senior management and the board in the preparation and review of the Pillar 3 disclosure, and aims to ensure that:

> minimum disclosure requirements of the Regulations, standards and directives are met;

> disclosed information is consistent with the manner in which the board assesses the group's risk portfolio;

> the disclosure provides a true reflection of the group's financial condition and risk profile; and

> the quantitative and qualitative disclosures are appropriately reviewed.

In this regard, the board and senior management have ensured that appropriate review of the relevant disclosures have taken place. The review process applied was approved by the FirstRand risk, capital management and compliance committee (RCCC).

GROUP STRATEGY

FirstRand Limited (FirstRand or the group) is a portfolio of integrated financial services businesses operating in South Africa, certain markets in sub-Saharan Africa and the UK. Many of these businesses are leaders in their respective segments and markets, and offer a broad range of transactional, lending, investment and insurance products and services.

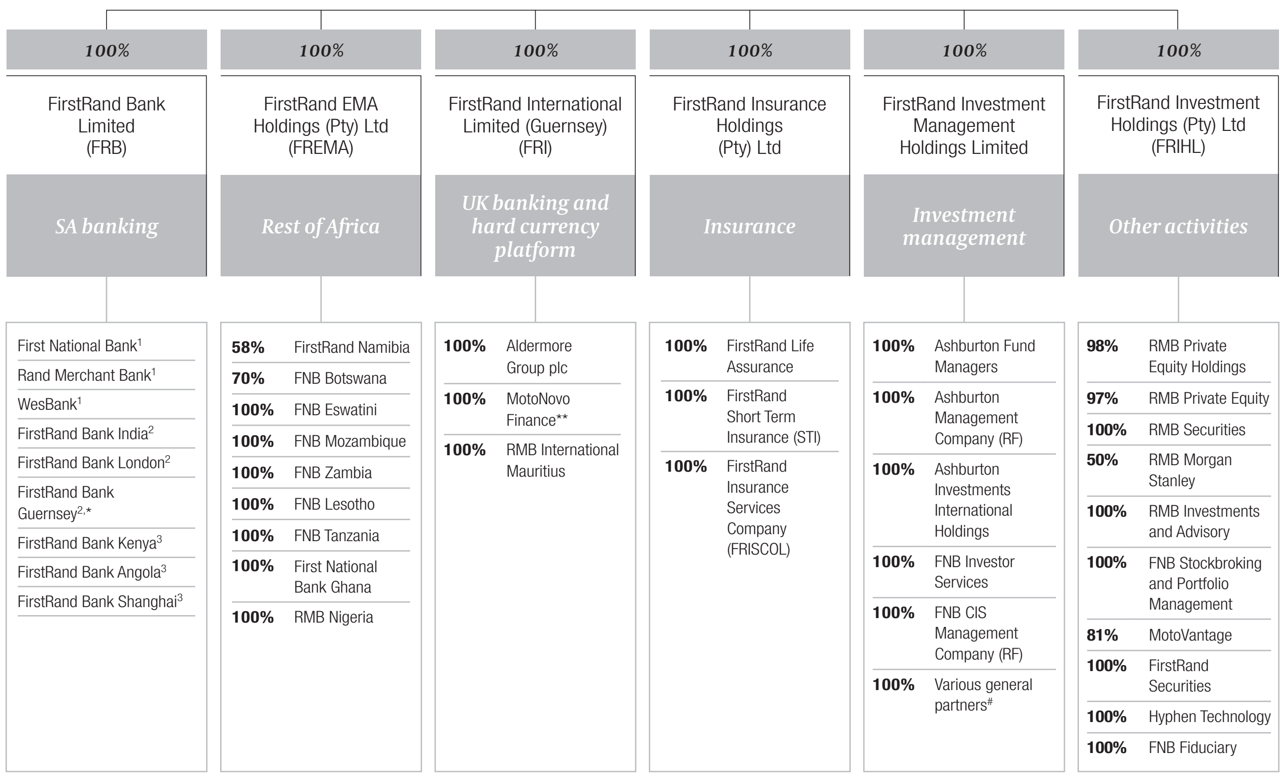
Group earnings remain significantly tilted towards South Africa and are mainly generated by FirstRand's large lending and transactional franchises, which have resulted in deep and loyal customer bases. Increased competition is targeting these traditional banking profit pools, particularly the transactional activities, and the group remains focused on protecting this large and profitable revenue stream. At the same time, FirstRand is working hard to find other sources of less capital-intensive revenues and is investing in building meaningful insurance, and wealth and investment management businesses.

Ultimately the group's strategy in its domestic market is to deliver platform-based integrated financial services to its customers. Successful execution is underpinned by a long-standing culture of entrepreneurial thinking and innovation, combined with disciplined allocation and pricing of financial resources. This approach has resulted in a long track record of delivering superior economic profits, returns and dividends to shareholders.

The group's strategy outside of South Africa includes growing its presence and offerings in certain key markets in the rest of Africa, where it believes it can build competitive advantage and scale over time. In the UK, the group aims to build further franchise value through scaling, digitisation and disciplined financial resource allocation to enhance economic profit generation.

SIMPLIFIED GROUP STRUCTURE

LISTED HOLDING COMPANY (FIRSTRAND LIMITED, JSE: FSR)



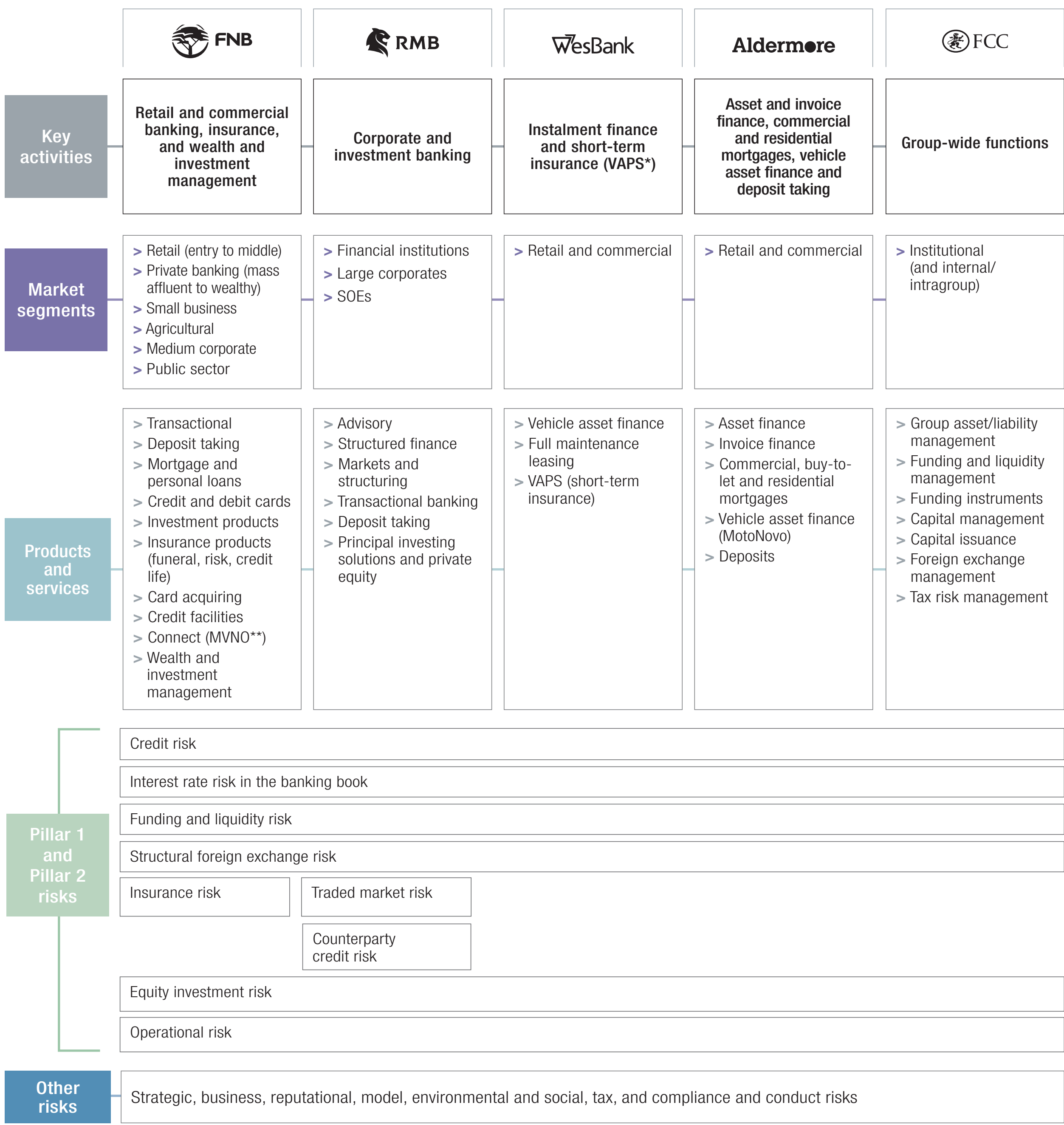
1. Division
2. Branch
3. Representative office
DirectAxis is a business unit of FirstRand Bank Limited.

* *Trading as FNB Channel Islands.*
** *Wholly owned subsidiary of Aldermore Group plc.*
\# *Ashburton Investments has a number of general partners for fund seeding purposes. All of these entities fall under FirstRand Investment Management Holdings Limited.*

Structure shows effective consolidated shareholding

For segmental analysis purposes entities included in FRIHL, FREMA, FRI, FirstRand Investment Management Holdings Limited and FirstRand Insurance Holdings (Pty) Ltd are reported as part of the results of the managing business (i.e. FNB, RMB, WesBank or FCC). The group's securitisations and other special purpose vehicles (SPVs) are in FRIHL, FRI and FRB.

Business activities and resultant risks



* *Value-added products and services.*
** *Mobile virtual network operator.*

GROUP RISK PROFILE

The following table provides a high-level overview of the group's risk profile in relation to its quantitative return and risk appetite measures.

	YEAR ENDED 30 JUNE 2021	RETURN AND RISK APPETITE – QUANTITATIVE MEASURES	YEAR UNDER REVIEW
GROWTH AND RETURNS	**Normalised ROE** 18.4% 2020: 12.9%	**Normalised ROE** Long-term target **18% – 22%**	When interpreting the results for the year to 30 June 2021, it's important to note that the comparative period, in particular the second half of the year to 30 June 2020, included the first three months of the pandemic and the lockdown introduced in March 2020. This resulted in increased impairments and reduced volumes leading to a significantly depressed performance for that financial year. As a result of that base effect, the group's normalised earnings increased 54%, with this performance also reflecting the sharp rebound in economic activity levels across the jurisdictions in which the group operates. Pleasingly FirstRand's normalised ROE of 18.4% is back within the stated range of 18% to 22%, reflecting the underlying quality of the group's earnings. The group produced R4.9 billion of economic profit, or net income after cost of capital (NIACC), which is its key performance measure.
	Normalised earnings growth 54% 2020: (38%)	**Normalised earnings growth** Long-term target **CPI plus real GDP plus (>0% – 3%)**	
SOLVENCY*	**CET1** 13.5% 2020: 11.5%	**CET1** Target **11.0% – 12.0%**	The group's Common Equity Tier 1 (CET1) ratio strengthened further to 13.5% (2020: 11.5%), which is well above its internal target range of 11.0% to 12.0%. In line with financial resource management (FRM) principles, both net asset value (NAV) and CET1 have been accretive over the year as the group increased its focus on risk weighted assets (RWA) optimisation and efficient use of financial resources. The group continues to actively manage its capital composition and align its Additional Tier 1 (AT1) and Tier 2 levels with its internal targets. During the year under review, the bank issued R1.4 billion AT1 instruments and R3.1 billion Tier 2 instruments in the domestic market to optimise its capital stack and manage the rollover of existing Tier 2 instruments. The group's leverage ratio remained above its internal target.
	Tier 1 14.1% 2020: 12.1%	**Tier 1** Target **>12.0%**	
	Capital adequacy 16.3% 2020: 14.5%	**Capital adequacy** Target **>14.25%**	
	Leverage 7.7% 2020: 7.1%	**Leverage** Target **>5.5%**	
LIQUIDITY**	**LCR** 113% 2020: 115%	**LCR** Minimum regulatory requirement: **80%** 2020: 80%	The group exceeded the minimum liquidity coverage ratio (LCR) with an average LCR of 113% over the quarter ended 30 June 2021. At 30 June 2021, the group's average available high-quality liquid assets (HQLA) holdings amounted to R313 billion.
	NSFR 123% 2020: 117%	**NSFR** Minimum regulatory requirement: **100%**	The group exceeded the 100% minimum requirement with a net stable funding ratio (NSFR) of 123% at 30 June 2021.

* *Ratios including unappropriated profits and the transitional impact of IFRS 9.*

** *Ratios including all registered banks and foreign branches in the group.*

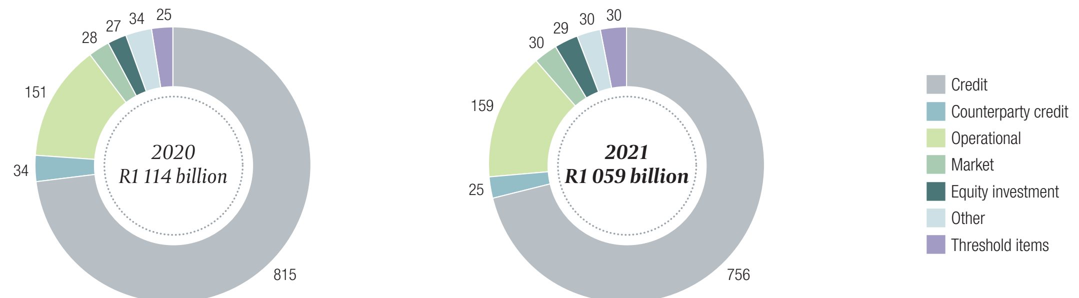
EXPOSURES PER RISK TYPE

YEAR ENDED 30 JUNE 2021	RETURN AND RISK APPETITE – QUANTITATIVE MEASURES	YEAR UNDER REVIEW
Credit risk	**NPLs** **4.76%** 2020: 4.37% **Credit loss ratio** **1.06 bps** (including Aldermore) 2020: 191 bps **1.27 bps** (excluding Aldermore) 2020: 210 bps Long-run average (excluding Aldermore) **100 – 110 bps**	As required under IFRS 9, FirstRand revised its macroeconomic forward-looking outlook, with positive revisions to key economic variables compared to the prior year given the rebound in the economy. Overall performing coverage reduced given this change. However, the group included an additional stress scenario given the ongoing uncertainty in the system resulting in only a marginal reduction in performing coverage. Non-performing loan (NPL) growth of 6% was better than expected, benefiting from a 35% increase in write-offs. This drove the 44% reduction in the overall impairment charge to R13.7 billion (2020: R24.4 billion). Overall NPL coverage increased marginally to 45.3% (2020: 43.1%), mainly driven by mix change but partially offset by a higher proportion of paying NPLs. Product coverage was largely maintained.
Market risk	**10-day ETL** **R316 million** 2020: R487 million	The interest rate asset class represented the most significant market risk exposure at 30 June 2021. The decrease in the bank's expected tail loss (ETL) was due to ETL/Value-at-Risk (VaR) Covid-19 scenarios falling out of the current 250-day rolling period. Contributing to the decrease at group level was the India branch, driven by sell-off of positions in the fixed income portfolio, which is in line with the business decision to wind down from a branch to a representative office.
Equity investment risk	**Equity investment carrying value as % of Tier 1*** **7.7%** 2020: 8.3%	The 2021 financial year was characterised by limited acquisitions as the private equity team deliberately focused on portfolio management activities with an emphasis on liquidity management and returning capital to shareholders. The portfolio benefited from improved macroeconomic conditions as South Africa transitioned to lower lockdown levels post the initial hard lockdown. Increased earnings combined with de-gearing over the year has seen an increase in the market value of the portfolio which is now above pre-Covid levels. The unrealised value in the portfolio at 30 June 2021 was R 4.4 billion (2020: R3.3 billion).
Interest rate risk in the banking book	**Net interest income sensitivity** **Down 200 bps** **-R2.4 billion** 2020: -R3.6 billion **Up 200 bps** **R1.5 billion** 2020: R2.2 billion	Assuming no change in the balance sheet nor any management action in response to interest rate movements, an instantaneous, sustained parallel 200 bps decrease in interest rates would result in a reduction in projected 12-month net interest income (NII) of R2.4 billion. A similar increase in interest rates would result in an increase in projected 12-month NII of R1.5 billion. The group's average endowment book (excluding UK operations) was R286 billion.

* *Excluding unappropriated profits.*

The group's RWA distribution shows that credit risk and operational risk remain the most significant contributors to the group's overall risk profile.

FirstRand RWA analysis



BANK RISK PROFILE

The table below provides a high-level overview of the bank's risk profile in relation to its quantitative return and risk appetite measures.

When interpreting the results for the year to 30 June 2021, it's important to note that the comparative period, in particular the second half of the year to 30 June 2020, included the first three months of the pandemic and the lockdown introduced in March 2020. This resulted in increased impairments and reduced volumes leading to a significantly depressed performance for that financial year. As a result of that base effect, the bank's normalised earnings increased 38%, with this performance also reflecting the sharp rebound in economic activity levels. The bank produced a good normalised ROE of 19.1%, reflecting the underlying quality of the bank's earnings.

	YEAR ENDED 30 JUNE 2021	RETURN AND RISK APPETITE – QUANTITATIVE MEASURES	YEAR UNDER REVIEW
SOLVENCY*	**CET1** **14.5%** 2020: 12.3%	**CET1** Target **11.0% – 12.0%**	The bank's CET1 ratio strengthened further to 14.5% (2020: 12.3%), which is well above its internal target range of 11.0% to 12.0%. The bank continues to actively manage its capital composition and align its AT1 and Tier 2 levels with its internal targets. During the year under review, the bank issued R1.4 billion AT1 instruments and R3.1 billion Tier 2 instruments in the domestic market to optimise its capital stack and manage the rollover of existing Tier 2 instruments. The bank's leverage ratio remained above its internal target.
	Tier 1 **15.2%** 2020: 12.8%	**Tier 1** Target **>12.0%**	
	Capital adequacy **17.8%** 2020: 15.7%	**Capital adequacy** Target **>14.25%**	
	Leverage **7.4%** 2020: 6.7%	**Leverage** Target **>5.5%**	
LIQUIDITY**	**LCR** **117%** 2020: 124%	**LCR** Minimum regulatory requirement: **80%** 2020: 80%	The bank exceeded the minimum LCR with an average LCR of 117% over the quarter ended 30 June 2021. At 30 June 2021, the bank's average available HQLA holdings amounted to R287 billion.
	NSFR **122%** 2020: 116%	**NSFR** Minimum regulatory requirement: **100%**	The bank exceeded the 100% minimum requirement with an NSFR of 122% at 30 June 2021.

** Relate to FRB including foreign branches. Ratios including unappropriated profits and the transitional impact of IFRS 9.*

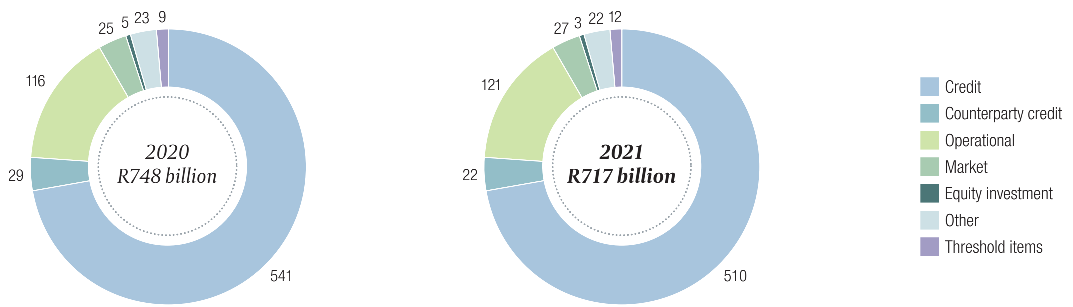
*** Ratios relate to FRBSA.*

EXPOSURES PER RISK TYPE

YEAR ENDED 30 JUNE 2021	RETURN AND RISK APPETITE – QUANTITATIVE MEASURES	YEAR UNDER REVIEW
Credit risk	**Normalised NPLs** **5.22%** 2020: 5.22% **Normalised credit loss ratio** **1.23 bps** 2020: 200 bps Long-run average **100 – 110 bps**	As required under IFRS 9, FirstRand revised its macroeconomic forward-looking outlook, with positive revisions to key economic variables compared to the prior year given the rebound in the economy. Overall performing coverage reduced given this change. However, the bank included an additional stress scenario given the ongoing uncertainty in the system resulting in only a marginal increase in performing coverage. The NPL decline of 1% was better than expected, benefiting from a 30% increase in write-offs. This drove the 39% reduction in the overall impairment charge to R11.1 billion (2020: R18.3 billion). Overall NPL coverage increased marginally to 46.4% (2020: 44.7%), mainly driven by mix change but partially offset by a higher proportion of paying NPLs. Product coverage was largely maintained.
Market risk	**10-day ETL** **R296 million** 2020: R431 million	The interest rate asset class represented the most significant market risk exposure at 30 June 2021. The decrease in the bank's ETL was due to ETL/VaR Covid-19 scenarios falling out of the current 250-day rolling period. Contributing to the decrease at group level was the India branch, driven by sell-off of positions in the fixed income portfolio, which is in line with the business decision to wind down from a branch to a representative office.
Interest rate risk in the banking book	**Net interest income sensitivity** **Down 200 bps** **-R1.6 billion** 2020: -R2.7 billion **Up 200 bps** **R1.1 billion** 2020: R1.8 billion	Assuming no change in the balance sheet nor any management action in response to interest rate movements, an instantaneous, sustained parallel 200 bps decrease in interest rates would result in a reduction in projected 12-month NII of R1.6 billion. A similar increase in interest rates would result in an increase in projected 12-month NII of R1.1 billion. The bank's average endowment book was R307 billion.

The bank's RWA distribution shows that credit risk and operational risk remain the most significant contributors to the bank's overall risk profile.

FRB RWA analysis



CURRENT AND EMERGING RISKS AND OPPORTUNITIES

Covid-19 significantly altered the risk landscape in 2020. The pandemic resulted in immediate and severe global socio-economic setbacks, combining adverse healthcare outcomes with economic shocks and supply chain disruptions.

In last year's current and emerging challenges section the group highlighted the pandemic as a once-in-a-generation stress event, with an uncertain recovery pathway ahead. Three simultaneous shocks were identified: to global trade, to global confidence, and to economic activity. During the financial year to June 2021, global trade resumed but with major disruptions including geopolitics and supply chain pressures, business confidence improved and economic activity started to pick up. The impact of Covid-19 continued to dominate the risk landscape, with household income remaining low and unemployment high by historical standards in South Africa.

Whilst the partial reopening of many economies has laid the foundation for an ongoing rebound in global activity, subsequent second and third waves constrained the extent to which economies could normalise, with various countries imposing intermittent lockdowns to slow the spread of the disease. The pace of recovery has also been uneven. High-contact sectors such as leisure and tourism remain under severe strain and the pandemic has served to amplify several underlying societal risks that contribute towards increases in poverty, inequality, sovereign debt balances and geopolitical divides.

The pandemic's effects on the group's performance resulted in clear first-and second-order impacts, which are outlined below.

FIRST-ORDER FINANCIAL COVID-19 AND REAL ECONOMY IMPACTS

Credit risk

Covid-19 created a stressed macroeconomic environment which strained customers' repayment ability, particularly in high-touch sectors.

- Relief was provided for retail, SME and corporate clients utilising a risk-based approach.
- Conservative credit provisions were raised, incorporating forward-looking information.
- Enhanced credit risk approaches, including activity geomapping, were implemented to track portfolio performance.

Business continuity

New approaches were required to safeguard employees whilst ensuring operational resilience.

- A blended working model was adopted with risk-adjusted responses tailored in accordance with the intensity of cases per region, national regulations and case trends in the group.
- An advisory panel of leading epidemiologists and medical practitioners was established to guide the process.

Market and counterparty credit risk

High levels of market volatility were experienced in certain assets classes due to uncertainty surrounding the pandemic and state interventions.

- The group's overall diversified levels of market risk remained within tolerance. The portfolio was repositioned, and risk appetite adjusted.

Insurance risk

High levels of mortality outcomes and elevated payout for unemployment and inability to earn directly resulted from the pandemic.

- The group supported clients through an enhanced credit life claims process.
- To account for increased risk the insurance company adjusted its actuarial basis assumptions.
- The adequacy of reinsurance cover was reassessed for mortality and retrenchment risk.
- Additional reinsurance capacity was put in place for new credit life business written from 1 September 2020.

SECOND-ORDER COVID-19 FINANCIAL AND REAL ECONOMY IMPACTS

Business risk
The Covid-19 shock affected activity through both regulatory interventions and broad behavioural and societal changes.

> The group embarked on a comprehensive assessment of risk appetite for the transition period to June 2023. The transitional risk appetite was designed to guide the group back to its long-term growth and return targets.

Cyber and fraud risks
The extent and types of cyber-risks and fraud has increased globally, with syndicates trying to take advantage of increased digitisation and higher levels of public spending.

> South Africa has also experienced elevated levels of cyber risk and the group remains vigilant against the possibility of future attacks.
> Advanced fraud prevention and customer desirability technologies utilising artificial intelligence (AI) and network models, are being deployed to combat fraud.

Social risk
Covid-19 resulted in adverse health outcomes for some of the most vulnerable people in society and affected livelihoods across formal and informal sectors.

> FirstRand provided financial and logistical support to public healthcare facilities, old age homes and feeding schemes through its South African Pandemic Intervention and Relief Effort (SPIRE).
> The group also partnered with Solidarity Fund and Business for South Africa by providing procurement and operational support for the delivery of key social intervention projects.

Conduct and reputational risk
The widespread impact of the pandemic and the requirement for a quick response resulted in higher levels of conduct and reputational risks for the group.

> Increased focus on ensuring that customers were treated fairly and appropriately in addressing their acute liquidity and credit requirements.
> Complaints management was a key focus area. The group is in the process of enhancing its approach and capabilities to better address customer complaints in a systematic manner.

Emerging risks

Looking forward, the group has identified three key emerging risks that are receiving heightened management attention.

CLIMATE RISK

Climate change risks do not necessarily represent an exclusively new risk category, but can rather be an amplifying factor for other risk types. Climate change presents a complex set of interconnected outcomes, with financial and operational risks emanating from two primary channels:

> **Physical risks**: Over the long term, climate change will result in both acute events (e.g. increased severity and frequency of extreme weather phenomena) and chronic environmental changes (e.g. sustained higher temperatures), which may lead to operational and credit risks.
> **Transitional risks**: In the short term, changes in client behaviour and investor preferences for less carbon-intensive assets and products may result in market, reputational or legal risks for the group. In the long term, transitioning to a less carbon-intensive economy will likely entail significant legal, technological and policy changes, which may be disruptive to established business models.

FirstRand's approach to climate risk assessment continues to evolve, aligned to global advances in data availability and transition pathways. This approach is comprehensively explained in the group's Task Force on Climate-related Financial Disclosure (TCFD) report.

The group is currently focused on the following commitments:

> Work in partnership with relevant government institutions in the jurisdictions in which the group operates to develop sustainable financial solutions that promote positive climate outcomes, taking into account regional contexts, sustainable development needs and the need for a just transition to a low-carbon world.
> Support clients as they transition to low-carbon outcomes and build enhanced capabilities in sustainable finance product sets and skills to provide such support across both environmental and social impact dimensions. The group will work with its clients in climate-sensitive sectors to ensure that adequate transition plans are implemented to mitigate adverse climate impacts. An enhanced due diligence will be performed on new financing in these sectors.
> In a phased manner, rebalance lending portfolios' new origination towards lower-carbon outcomes and increase the proportion of green assets and transition financing of existing assets on its balance sheet.
> Manage a transition away from fossils fuels in alignment with a science-based base case transition path.
> Build out internal expertise and relevant tool sets to better enable the identification, measurement and management of FirstRand's impact on the climate – both direct and financed. In particular, its ability to stress test to determine the impact of climate change on group portfolios, and appropriately manage in-force portfolios' climate risk profiles and new credit origination in line with overall risk appetite.
> Continue the active management and reduction of the group's own operational carbon emissions in line with science-based targets.

SOVEREIGN, GEOPOLITICAL AND SOCIAL UNREST RISK

An increase in sovereign risks is emerging across several jurisdictions, with lower tax collections and higher expenditure to support economies resulting in weakened fiscal positions. Elevated levels of geopolitical risks persist in certain of the jurisdictions in which the group operates, as countries continue to contend with increased levels of polarisation.

These tensions have resulted in an increase in the risk of social unrest, which manifested in protests, sporadic arson and looting in Eswatini and South Africa, which disrupted economic activity. The risk profile in Mozambique remains elevated due to heightened terrorist activity. The security threat in the northern part of the country has escalated during the financial year, with a direct impact on new liquified natural gas (LNG) projects, but started to moderate towards the latter part of the financial year. Although there have been no credit impacts on the funding of offshore gas projects to date, delays will likely postpone the economic benefits that were expected to accrue to Mozambique from construction activity and LNG exports.

The group currently has an on-the-ground retail and corporate banking presence in Mozambique and is closely monitoring the risk, and adjusting operations in response.

ASSET PRICE RISK

Several events over the past financial year indicate increased levels of risk in global debt and equity markets. Higher levels of global liquidity have led to runs in certain alternative asset classes and stocks. Central bank interventions to support economies have in some cases led to a divergence of the real economy from financial markets. Depending on how long the recovery takes and the manner in which this support is unwound, there is an increased risk of a steep correction in some asset prices over the next two years.

FirstRand conducts ongoing portfolio reviews in its markets business to reconfirm that there are no unacceptable concentrations. The group continues to adapt its operating platform for market risk activities, including enhancing platform capabilities across both front office and risk management areas, and aligning market risk processes, analyses and reporting with changes in regulatory requirements.

RISK MANAGEMENT APPROACH

FirstRand believes that the effective management of risk, performance and financial resources is key to its success and underpins the delivery of sustainable returns and earnings growth to shareholders. These disciplines are, therefore, deeply embedded in the group's tactical and strategic decision-making.

The group believes a strong balance sheet and resilient earnings streams are key to sustainability. FirstRand's businesses have consistently executed on a set of strategies which are aligned to group FRM strategies and frameworks designed to ensure earnings resilience and growth, superior returns, balance sheet strength, an appropriate risk/return profile and an acceptable level of earnings volatility under adverse conditions. These deliverables are underpinned by core frameworks set at the centre to ensure financial discipline, and incorporate risk appetite and FRM into long-term strategic planning and tactical decision-making. These frameworks are outlined in the table below.

RETURN AND RISK APPETITE FRAMEWORK	RISK MANAGEMENT FRAMEWORKS	FINANCIAL RESOURCE MANAGEMENT FRAMEWORKS	PERFORMANCE MEASUREMENT FRAMEWORK
> Outlines quantitative return and risk appetite measures to balance the trade-off between returns, growth, and risk in decision-making. > Ensures appropriate behaviour and conduct through strong qualitative risk appetite principles supporting the group's risk culture. > Links group strategy to the allocation of risk capacity.	> Ensure material risks are identified, measured, monitored, mitigated and reported. > Assess impact of the cycle on the group's portfolio. > Understand and price appropriately for risk. > Originate within cycle-appropriate risk appetite and volatility parameters.	> Execute sustainable funding and liquidity strategies. > Protect credit ratings. > Ensure group remains appropriately capitalised with an efficient capital structure with appropriate/conservative gearing. > Ensure discipline in the allocation and pricing of financial resources. > Preserve a "fortress" balance sheet that can absorb shocks through the cycle. > Ensure that group delivers on commitments to stakeholders at a defined confidence level.	> Allocates capital appropriately. > Measures business delivery on a risk-adjusted basis. > Cascades group targets to business activities. > Sets appropriate pricing principles to drive return profile. > Drives economic value creation, which is defined as NIACC, the group's key performance measure.

The group defines risk widely. It is any factor that, if not adequately assessed, monitored and managed, may prevent FirstRand from achieving its business objectives or result in adverse outcomes, including reputational damage.

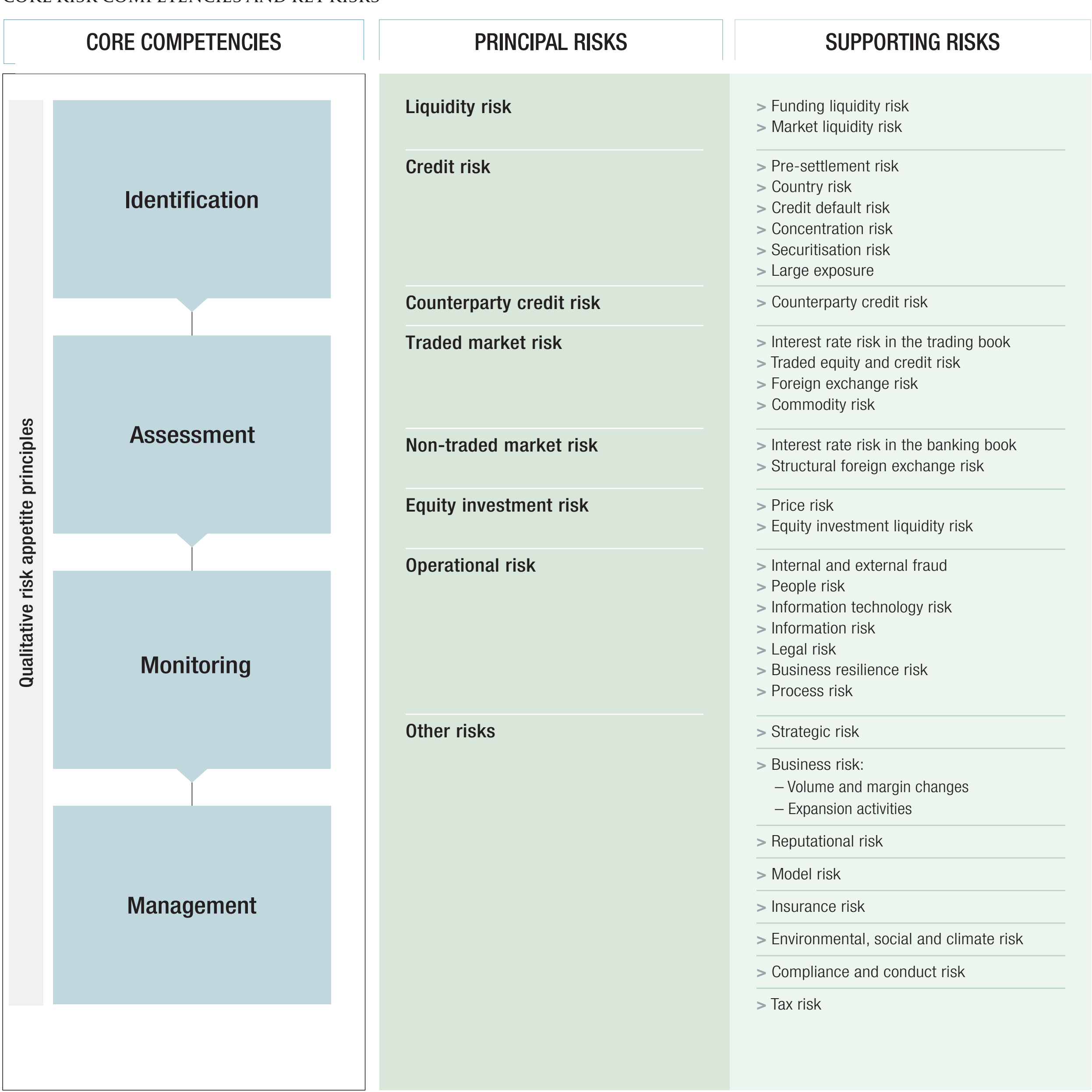
Risk taking is an essential part of the group's business and the group explicitly recognises core risk competencies as a key differentiator and competitive advantage. These core risk competencies include identifying, assessing, monitoring and managing risk, and are integrated in all management functions and business areas across the group.

The risk management process provides the checks and balances necessary to ensure sustainability and performance, create opportunities, achieve desired objectives, and avoid adverse outcomes and reputational damage.

A business can profit from taking risks, but will only generate an acceptable profit commensurate with the associated risk if these risks are properly managed and controlled. The group's aim is not to eliminate risk, but to achieve an appropriate balance between risk and reward. This balance is achieved by controlling risk at the level of individual exposures, at portfolio level, and across all risk types and businesses through the application of the return and risk appetite framework. The group's return and risk appetite framework enables organisational decision-making and is aligned with FirstRand's strategic objectives. Refer to page 24 for more detail on the group's return and risk appetite framework.

The following table illustrates the core competencies that form part of the group's risk management processes across key risk types and components.

CORE RISK COMPETENCIES AND KEY RISKS



Risk limits for all risk types are integral to risk management and are instrumental in constraining risk taking within appetite. Qualitative risk appetite principles are designed to support the risk culture of the group and provide a strong foundation to ensure appropriate behaviour and conduct. The risks, and the roles and responsibilities of the various stakeholders across business, support and control functions, are described in the group's risk management framework.

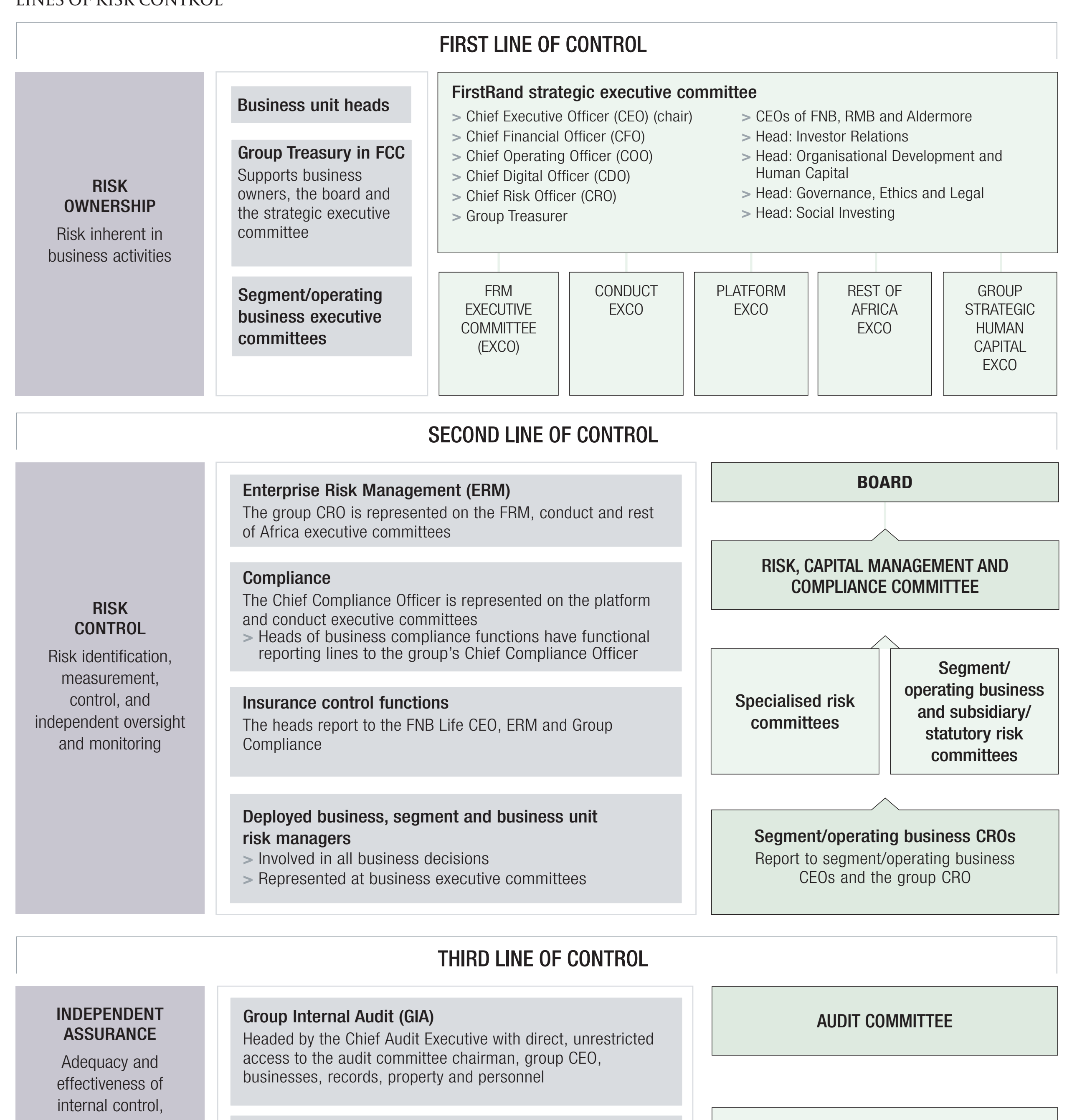
RISK GOVERNANCE

The group believes that effective risk management is supported by effective governance structures, robust policy frameworks and a risk-focused culture. This helps to embed risk considerations in business processes and ensures that consistent standards exist across the group. In line with the group's corporate governance framework, the board retains ultimate responsibility for providing strategic direction, approving risk appetite and ensuring that risks are adequately identified, measured, monitored, managed and reported on.

Risk governance framework

The group's risk management framework describes FirstRand's risk management structure and approach to risk management. Effective risk management requires multiple points of control or safeguards that should be applied consistently at various levels throughout the organisation. The group's risk management framework recognises three lines of control across the group's operations, as illustrated in the following diagram.

LINES OF RISK CONTROL



Risk governance structure

The risk governance and management structure is set out in the group's risk management framework. As a policy of the board, the group risk management framework delineates the roles and responsibilities of key stakeholders in business, support and control functions across the group.

The primary board committee overseeing risk matters across the group is the RCCC. It has delegated responsibility for a number of specialist topics and key risk types to various risk subcommittees.

The RCCC and its delegated subcommittees represent the group's risk governance structure with appropriate decision-making mandates. Segment/operating business risk and governance committees support the RCCC by:

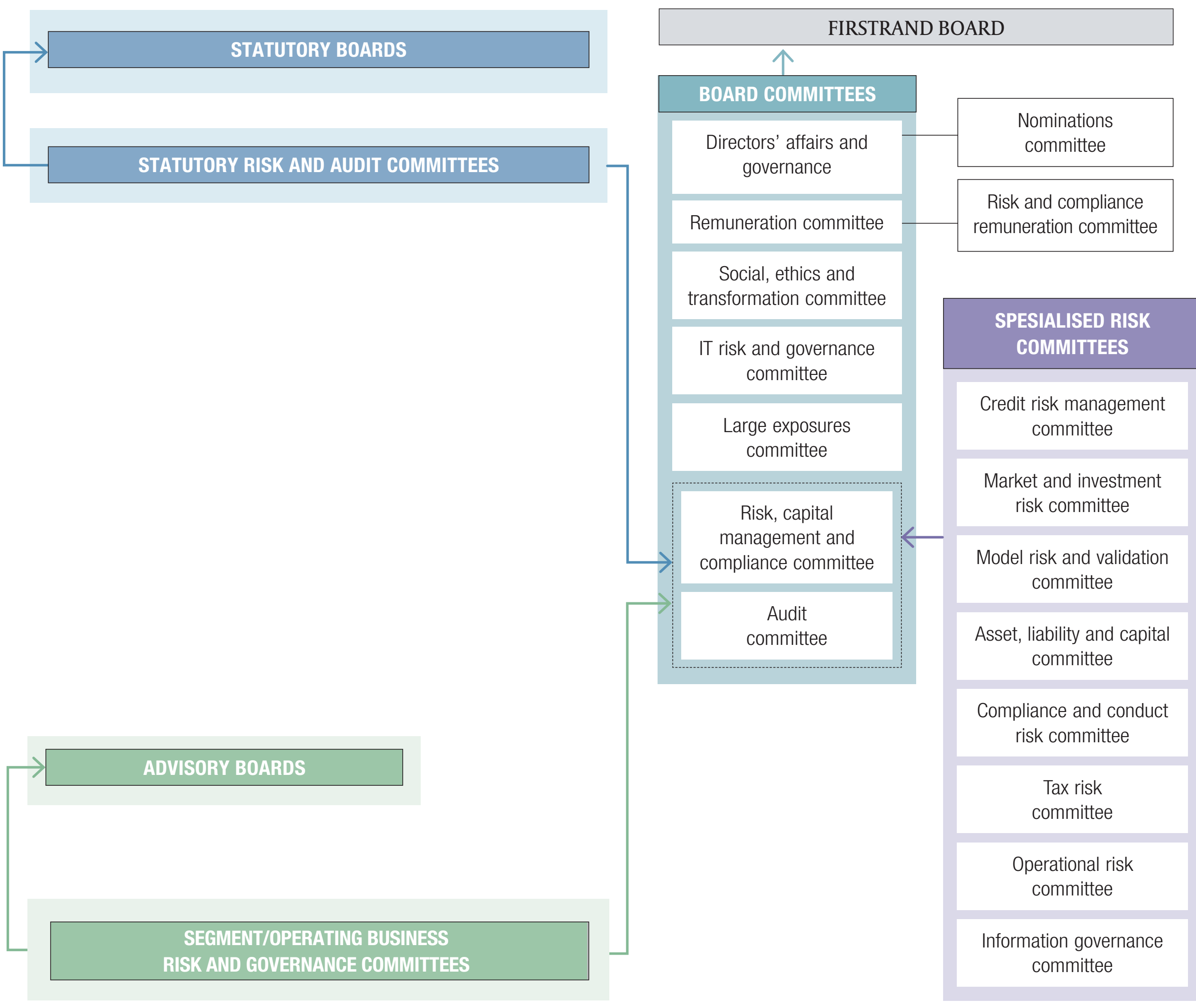
- providing executive risk oversight for segment CEOs and CROs from a risk and governance perspective; and
- providing a systematic screening mechanism to filter and escalate material risk concerns into the RCCC and its delegated subcommittees.

Non-executive directors are members of the group and segment/operating business risk and governance committees as independent contributors of specialist oversight and specialised knowledge where required, e.g. model validation, cyber risk and climate risk. Additional support is provided by more specialist risk committees, including the investment management, insurance, and rest of Africa risk committees. Statutory risk and audit committees exist where there are separate legal entity or jurisdiction requirements, e.g. Aldermore and FirstRand Investment Management Holdings. These committees report to the statutory boards.

There are also additional board committees with clearly defined responsibilities. The group board committees comprise members of segment/operating business advisory boards and audit and risk committees to ensure a common understanding of the challenges that businesses face and how these are addressed across the group. The group strategic executive committee ensures alignment of business strategies and the implementation of the return and risk appetite framework, and the optimal deployment of the group's resources.

Further details on the roles and responsibilities of the RCCC and its subcommittees relating to each risk type are provided in the major risk sections of this report. The diagram on the next page illustrates how the risk committees fit into the board risk committee structure and the risk coverage of each committee.

RISK GOVERNANCE STRUCTURE



BOARD RISK COMMITTEES' RESPONSIBILITIES

COMMITTEE	RESPONSIBILITIES
Audit committee	> Assists the board with its duties relating to the safeguarding of assets, the operation of adequate systems and controls, and the assessment of going-concern status and ensures that relevant compliance and risk management processes are in place. > Oversees and reviews work performed by the external auditors and internal audit function. > Oversees financial risks and internal financial controls, including the integrity, accuracy and completeness of financial information, annual financial statements and the annual integrated report, which are provided to shareholders and other stakeholders.
Risk, capital management and compliance committee	> Approves risk management policies, frameworks, strategies and processes including its subcommittees' charters and membership. > Monitors management and containment of risk exposures within the return and risk appetite framework and the group risk management framework. > Monitors the implementation of risk and compliance management strategy, risk appetite limits and the effectiveness of risk management of existing and emerging risks. > Approves, ratifies and monitors corrective risk management initiatives by management. > Monitors that the group takes appropriate action to manage its compliance, conduct and prudential risks, and complies with applicable laws, rules, codes and standard. > Approves regulatory capital models, risk and capital targets, limits and thresholds. > Monitors capital adequacy and ensures that a sound capital management process exists. > Reports on assessment of the adequacy and effectiveness of risk appetite, risk management, the group's internal capital adequacy assessment process (ICAAP) and compliance processes.
Large exposures committee	> Reviews and approves applications and/or renewals for investments, advances or other credit instruments in excess of 10% of the group's qualifying capital and reserves. > Reviews and approves transactions with a related party and the write-off of any related party exposure exceeding 1% of the group's qualifying CET1 capital and reserve funds. > Reviews and approves applications and renewals outside the mandate of the FirstRand wholesale credit approval committee. > Delegates the mandate for approval of group and individual facilities to the FirstRand wholesale credit approval committee and the FirstRand commercial credit approval committee and the FirstRand retail credit policy and risk appetite approval committee, as appropriate.
Information technology risk and governance committee	> Reviews and approves the FirstRand IT governance framework and maintains oversight of the implementation thereof. > Maintains oversights over the maintenance of an IT governance universe of frameworks, policies, standards and structures for sound and effective management of technology and risk and approves where appropriate relevant IT and information security-related frameworks, policies, standards and structures. > Monitors the appropriateness and effectiveness of the implementation and oversight of IT risk management, information and cybersecurity management, and IT governance across the group. > Considers the group's IT risk profile, including cybersecurity, and ensures it is managed within risk appetite. > Initiates corrective actions and passes resolutions, as may be appropriate, to improve the overall status of IT and information security risk management and governance, including requiring changes to processes where weaknesses are identified. > Receives reports on significant IT, information security and cyber-related incidents, and monitors that adequate corrective actions have been implemented. > Escalates significant IT (including cyber) risk and governance matters to the board. > Provides the board with an overall view of the state of IT risk and governance across the group. > Monitors IT spend and ensures value delivery for significant investments in technology. > Monitors the development and implementation of IT strategy. > Instils an appropriate level of governance to ensure IT support for the implementation of the group's data strategy and a sound data ecosystem. > Maintains oversight of the IT operating model to ensure that it is appropriate to meet the group's strategic objectives. > Monitors management compliance with all relevant regulatory requirements. > Reviews first-, second- and third-line management reports to ensure that management has successfully discharged the responsibilities delegated to it in terms of the IT governance framework.

RESPONSIBILITIES OF RCCC SUBCOMMITTEES

RCCC SUBCOMMITTEE	RESPONSIBILITIES
Credit risk management committee	> Approves the group's credit risk management framework and related credit risk frameworks. > Monitors the quality of in-force business and business origination in terms of the group's view of the macroeconomic outlook. > Ensures the uniform interpretation of credit regulatory requirements and an acceptable standard of credit reporting. > Initiates and monitors corrective actions, where required. > Reviews and debates results of credit loss forecasting, scenario analysis, stress testing and economic capital utilisation. > Reviews and sets the group's credit risk appetite statement and monitors compliance, approves prudential limits and monitors performance relative to prudential limits and segment risk limits. > Ensures that the direct and indirect implications of climate risk are considered in the portfolio, specifically pertaining to credit risk management. > Monitors the group's ongoing compliance with the principles and requirements stipulated in the group's risk data aggregation and reporting requirements framework, in line with BCBS 239 requirements.
Market and investment risk committee > *Traded market risk* > *Equity investment risk* > *Counterparty credit risk*	> Approves market, investment and counterparty credit risk management frameworks, policies, standards and processes. > Monitors the market, investment and counterparty credit risk profile and the effectiveness of related risk management processes. > Monitors the implementation of corrective action, where required. > Approves market, investment and counterparty credit risk-related limits.
Model risk and validation committee	> Approves model risk management frameworks, policies and standards as well as model risk tolerance. > Considers and approves all material aspects of model governance and validation processes, including but not limited to those processes related to credit risk rating and estimation, internal models for market risk and advanced measurement operational risk models. > Monitors the group's model risk profile, including ensuring that models are within risk tolerance. > Monitors material model risk issues and associated corrective actions.
Asset, liability and capital committee (ALCCO) > *Funding and liquidity risk* > *Capital management* > *Interest rate risk in the banking book* > *Structural foreign exchange risk*	> Approves and monitors effectiveness of management policies, assumptions, limits and processes for liquidity and funding risk, capital and non-traded market risk. > Monitors the group's funding management. > Monitors capital management including level, composition, supply and demand of capital, and capital adequacy ratios. > Approves frameworks and policies relating to internal funds transfer pricing for the group. > Provides oversight of balance sheet management.
Compliance and conduct risk committee	> Approves compliance risk, including anti-money laundering and combating the financing of terrorism (AML/CFT) frameworks, coverage plans, risk management policies and standards. > Monitors the effectiveness of compliance risk management across the group and initiates corrective action, where required. > Monitors compliance with the Regulations and supervisory requirements relating to banks. > Reviews matters relating to financial crime regulatory compliance, market conduct and prudential regulatory compliance, anti-bribery and corruption, and other regulatory compliance matters.
Tax risk committee	> Sets tax strategy and tax risk appetite. > Approves tax risk management frameworks and policies. > Monitors tax risk assessments and risk profiles. > Escalates relevant risk items to the RCCC.

Operational risk committee	> Monitors effectiveness of operational risk management, provides oversight, and initiates corrective action where required. > Approves the group's operational risk appetite. > Monitors the group, segment and operating business risk profiles against operational risk appetite and escalates relevant risks to RCCC timeously. > Approves operational risk management frameworks, policies and meeting charters (e.g. integrated crime, protective security, legal risk, business resilience risk and vendor risk).
Information governance committee	> Monitors the development and implementation of an appropriate information governance framework (including policies, standards and guidelines). > Reports to RCCC on the level of information governance for the group. > Initiates appropriate actions to improve group information governance. > Monitors the development and implementation of the group's data strategy and provides feedback to RCCC on implementation status.

Combined assurance

The audit committee oversees formal group-wide governance structures for enhancing the practice of combined assurance at both group and segment/operating business levels. The primary objective is for assurance providers to work with management to deliver appropriate, cost-effective assurance. Assurance providers in this model include Group Internal Audit (GIA), senior management, ERM, Group Compliance and external auditors. The combined outcome of independent oversight, review, validation and audit tasks performed by the assurance providers ensures a high standard across methodologies and the operational and process components of the group's risk and assurance functions.

The group established a combined assurance forum, supported by segment/operating business combined assurance forums, with the primary objective to assist the audit committee in discharging its responsibilities on the integration, coordination and alignment of the various risk management and assurance processes and activities across the group. Combined assurance is firmly embedded across the group and drives consistent reporting to relevant governance committees.

Enhancements of the combined assurance process are ongoing to ensure greater efficiency through reducing duplication, more focused and appropriate risk-based assurance coverage of key risk themes and control areas, and heightened awareness of emerging risks. These result in the implementation of appropriate action plans.

Risk information reporting

PROCESS OF RISK REPORTING

The group's robust and transparent risk-reporting process enables key stakeholders (including the board and senior executives) to get an accurate, complete and reliable view of the group's financial and non-financial risk profile, and enables management to make appropriate strategic and business decisions.

Reporting of risk information follows the governance structure illustrated on page 15. Specialist risk committees and segment/operating business risk and compliance committees report to the RCCC and its subcommittees. Relevant executive committees receive reports on the risk profile, material risk exposures, risk-adjusted business performance and key risk issues. The RCCC submits reports to the board and highlights control issues to the audit committee.

Regular risk reporting enables the board, senior management, the RCCC and relevant subcommittees to evaluate and understand the level and trend of material risk exposures and their impact on the group's capital position, and to make timely adjustments to the group's future capital and strategic plans.

The RCCC submits reports to the board on:

- the group's risk profile, significant issues, key risk exposures, risk rating trends, risk appetite principles and board risk limits;
- the effectiveness of corporate governance, risk management, capital management and capital adequacy;
- the level of compliance or non-compliance with laws and regulations, and supervisory requirements;
- material internal control or regulatory malfunction;
- contravention of codes of conduct or ethics, personal trading, or unethical behaviour; and
- limits, authorities and delegations granted to the RCCC.

GIA provides a written assessment of the adequacy and effectiveness of the system of internal controls (including financial controls) and risk management to the audit committee. This enables the board to report on the effectiveness of the system of internal controls in the annual financial statements.

SCOPE AND CONTENT OF RISK REPORTING

Risk reports to the board, board risk committees, segment/operating business risk committees and senior management include the following:

- risk exposure and risk-adjusted business performance;
- feedback on implementation and monitoring of risk management processes;
- comparison of risk management performance against risk appetite, limits and indicators;
- periodical reviews of progress against and deviations from the risk management plan;
- changes in the external or internal environment and their potential impact on the group's risk profile;
- the impact of environmental changes on the risk profile of the group;
- an assessment of whether risk responses are effective and efficient in design and operation;

- tracking of the implementation of risk responses;
- analysis and lessons learnt from changes, trends, successes, failures and events; and
- the identification of emerging risks.

As part of the reporting, interrogation and control processes, ERM drives the implementation of more sophisticated risk assessment methodologies through the design of appropriate policies and processes, including the deployment of skilled risk management personnel in every business.

ERM ensures (and GIA provides periodic assurance) that all policies, processes and systems are adequately designed and effectively implemented for pertinent risk information to be accurately captured, evaluated and escalated appropriately and timeously. This enables the board and its designated committees to retain effective control over the group's risk position.

RISK DATA AGGREGATION AND RISK REPORTING

BCBS 239 was published in January 2013, setting out principles to strengthen banks' risk data aggregation capabilities and internal risk reporting practices. In turn, effective implementation of the principles is expected to enhance banks' risk management and decision-making processes. Domestic systemically important banks (D-SIBs) were required to comply with the principles by 1 January 2017.

The principle-based nature of BCBS 239 presents challenges to banks across the world to demonstrate compliance efforts to comply with the principles without clear regulatory or industry compliance standards. FirstRand embarked on a multi-year implementation programme and developed a risk data aggregation and risk reporting (RDARR) framework to define the scope of compliance and ensure that the implementation remains comprehensive and aligned with the group's business activities. BCBS 239 introduces key information management principle into regulation and these have been incorporated into the group's information governance framework and risk management frameworks as required.

FirstRand regards data as a strategic asset and, as such, the implementation of RDARR requirements is considered foundational to the group's data journey. The data strategy is designed through the lens of risk and data capabilities and in support of the group's integrated data architecture. Risk data governance has been incorporated into the overall risk management framework, supported by a culture of accountability for data set by executive management.

GIA, FirstRand's independent BCBS 239 compliance assessor, submitted a comprehensive and transparent audit report to the PA, clearly indicating the in-scope risk types across the 11 principles, augmented by the Banking Association of South Africa's (BASA's) attestation procedures and audit guidelines to determine the group's compliance with the RDARR principles. Whilst an integral part of FirstRand's response to BCBS 239, the independence of GIA was not impaired since GIA was not involved in related decision-making processes and did not provide input to construction or implementation of day-to-day processes.

GIA validated the status of all material risk types and the group is fully compliant with the requirements of BCBS 239.

A single programme is in place in the Aldermore group to implement RDARR requirements within the agreed compliance timelines.

FirstRand's implementation of BCBS 239 has resulted in enhanced risk management and decision-making processes. Focus has shifted from remediation of compliance gaps to maintaining compliance.

Risk culture

The group recognises that effective risk management requires an appropriate risk culture. The group distinguishes between corporate culture (the group's philosophy/promises guiding behaviour) and risk culture (attitudes towards risk management). Significant determinants are ethical leadership, flow of information, reporting integrity and treating customers fairly.

The group's risk culture is intended to ensure effective risk management and controls. It places primary responsibility for risk management on the first line of control (risk ownership), while designating specific risk management-related duties and responsibilities to the second (risk control) and third (independent assurance) lines of control.

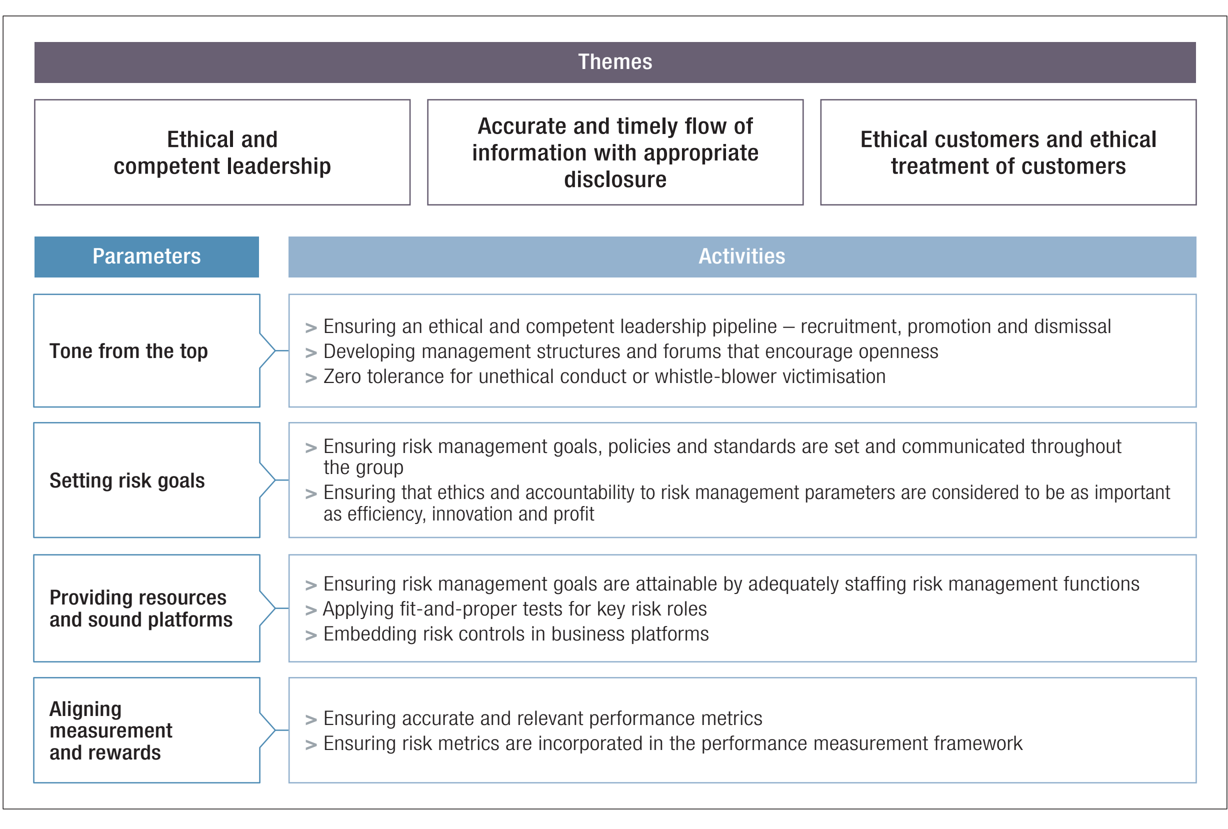
The group believes its risk culture is underpinned by the following:

- competent and ethical leadership in setting strategy, risk appetite and a positive attitude towards applying appropriate risk practices;
- robust risk governance structures to ensure risk policy frameworks are visible and implemented, and that appropriate committee structures and membership exist;
- best practice risk identification, measurement, monitoring, management and reporting; and
- an organisational culture which drives appropriate ethics practices and supports risk management goals, and which provides a balance between skills and ethical values and ensures accountability for performance.

In support of a sound risk culture, the group manages ethics and conduct risk programmes with appropriate levels of employee training and communication to ensure responsible conduct. The programmes include those aimed at overseeing client desirability and related reviews and managing whistle-blowing and other risk culture monitoring mechanisms, as well as reviewing the outcomes of various culture and behaviour assessments. The effectiveness of these programmes is periodically assessed.

The group has established clear parameters to assess its risk culture rating. This is outlined in the following diagram.

RISK CULTURE ASSESSMENT FRAMEWORK



RISK MEASUREMENT APPROACHES

The following approaches are adopted by the group for the calculation of RWA.

RISK TYPE	FRBSA	PA IMPLEMENTATION DATE	REMAINING GROUP SUBSIDIARIES AND FRB BRANCHES
Credit risk	Advanced internal ratings-based (AIRB) approach and the standardised approach for certain portfolios	January 2008	Standardised approach
Securitisations	AIRB	January 2008	Standardised approach
Counterparty credit risk	Standardised approach for measuring counterparty credit risk (SA-CCR)	January 2021	SA-CCR
Traded market risk	Internal model approach	July 2007	Standardised approach
Equity investment risk	Market-based approach: > Simple risk-weighted method*	June 2011	Market-based approach: > Simple risk-weighted method*
	Equity investments in funds: > Mandate-based approach	January 2021	Equity investments in funds: > Mandate-based approach
Operational risk	Advanced measurement approach (AMA)	January 2009	Basic indicator approach (BIA) and the standardised approach for operational risk (TSA)
Other assets**	Standardised approach	January 2008	Standardised approach

* *Subject to the threshold rules as per Regulation 38(5).*

** *Include RWA related to investment in financial, banking and insurance entities, and deferred tax assets, calculated as per the threshold rules under Regulation 38(5).*

Credit risk

The calculation of credit RWA for the bank's domestic operations is based on internally developed quantitative models in line with the AIRB approach. The three credit risk measures, namely probability of default (PD), exposure at default (EAD) and loss given default (LGD), are used along with prescribed correlations, dependent on the asset class and estimates of maturity, where applicable, to derive credit RWA. The quantitative models also adhere to the AIRB requirements related to annual validation.

For the remaining entities, credit RWA is based on the standardised approach where regulatory risk weights are prescribed per asset class. Even though the remaining entities do not have regulatory approval to use the AIRB approach, internally developed quantitative models are used for internal assessment of credit risk.

Securitisations

Where a public rating is available by an eligible external credit assessment institution (ECAI) for the notes in issue, the ratings-based approach (RBA) is used, otherwise the supervisory formula approach or a look-through to the underlying assets is applied. Capital calculated under these approaches is limited to the capital that would have been held had the assets remained on balance sheet.

RBA uses an external rating assigned to the securitisation tranches by an ECAI. Credit risk weightings are based on the rating assigned to the specific tranche as well as its seniority relative to other notes.

Under the supervisory formula approach (SFA), the capital requirement for any securitisation exposure is determined using the credit parameters for the underlying assets. Capital is determined using a standard formula taking into account the size of the tranche and credit enhancement. Unrated exposures are risk weighted at 1 250%. Capital for unrated exposures is determined using the size of the tranche and credit enhancement.

The standardised approach uses an external rating assigned to the securitisation tranches by an ECAI. Credit risk weightings are based on the rating assigned to the specific tranche.

Counterparty credit risk

Regulatory capital for counterparty credit risk is based on the credit risk approach, i.e. AIRB for domestic entities and the standardised approach for the remainder of the group's entities. In addition, capital is held for credit valuation adjustment (CVA) risk. CVA refers to the fair value adjustment to reflect counterparty credit risk in the valuation of derivative contracts. It is the mark-to-market adjustment required to account for credit quality deterioration experienced by a derivative counterparty. CVA capital, for all domestic and foreign entities, is computed in accordance with the standardised approach. For domestic entities, economic capital is calculated based on the internal model, with regulatory capital serving as a proxy for economic capital for the remainder of the group entities.

The current regulatory capital approach used to calculate EAD of derivative transactions is based on SA-CCR. This methodology is applied by allocating trades to margin/netting sets, which determine key features such as how exposure netting is applied, as well as specific unmargined or margined treatment. EAD is determined by measuring the replacement cost, i.e. current exposure net of collateral, combined with the potential future exposure. Potential future exposure is a simplified method to determine the variability in the future valuation of the applicable trades based on net notional position and supervisory factors per asset class. Additionally, exposure reduction is considered for over-collateralised or far-out-of-the-money positions via an exposure multiplier. Final EAD is quantified at a counterparty level by summing the replacement cost and the net potential future exposure, before finally scaling by an alpha factor of 1.4.

EAD approaches to measure the exposure of derivative transactions are based on current regulations and are outlined below.

SA-CCR	SA-CCR is applied for the group. This approach is more sophisticated than the current exposure and standardised methods used previously, as it factors in the non-linearity features of derivative and risk sensitivity such as the price value of a basis point (PV01) and is based on the concept of hedging and netting sets.
Internal model method	The internal model method is the most complex method and is not applied by the group.

Traded market risk

Regulatory capital for domestic trading units is based on the internal VaR model supplemented with a stressed VaR (sVaR). Both VaR and sVaR are calculated at the 99% confidence level, 10-day actual holding period level using 250 scenarios each. VaR is calculated using the last 260 trading days' data and sVaR using 260 trading days during a pre-defined static stress period (2008 – 2009). For internal risk reporting purposes, an expected shortfall methodology calculated at a 99% confidence level, 10-day actual holding period is used over the same periods as VaR and sVaR. 1-day VaR calculations are also used as an additional tool in the assessment of market risk.

The group's subsidiaries in the rest of Africa and the bank's foreign branches are measured using the standardised approach for regulatory capital. Internal stress loss methodology applies to the rest of Africa for internal measurement of risk. Capital is calculated for general market risk using the duration methodology. In addition to general market risk, specific risk capital is held based on the Basel III standardised approach duration method.

Equity investment risk

The simple risk-weighted method under the market-based approach (300% for listed equities or 400% for unlisted equities) is applied with the scaling factor for the quantification of RWA. In terms of Regulation 38, a specific risk weight is applied to qualifying investments in financial, banking and insurance entities (threshold rules). This is dependent on the size of the portfolio of the investments in relation to the group's qualifying CET1 capital. The full deduction method is applied to insurance entities, i.e. deduction of IFRS consolidated NAV and risk weighting of investment into insurance entity. Economic and regulatory capital calculations are augmented by regular stress tests of market values and underlying drivers of valuations, including assessments of stress resulting from portfolio concentrations.

Equity investments in funds are risk weighted using the mandate-based approach (MBA) or fall-back approach (FBA), depending on the criteria met by the fund. For MBA, funds are risk weighted according to the fund's mandate or information obtained from other relevant fund disclosures. Where the fund mandate further permits the use of leverage and/or derivatives, RWA is adjusted to take these into account. FBA applies a 1 250% risk weighting, which is the maximum risk weighting permissible under either of the approaches.

Where price discovery is reliable, the risk of listed equity investments is measured based on a 90-day ETL calculated using RMB's internal market risk model for economic capital quantification. The ETL risk measure is supplemented by a measure of the specific (idiosyncratic) risk of the individual securities per the specific risk measurement methodology.

Operational risk

The group applies the advanced measurement approach (AMA) for its domestic operations. Offshore subsidiaries and operations use the standardised approach for operational risk (TSA) and all previously unregulated entities (prior to 2010) in FRIHL use the basic indicator approach (BIA). FirstRand Investment Management Holdings Limited and Aldermore also apply BIA. Under AMA, the group uses a sophisticated statistical model for the calculation of capital requirements, which enables more accurate, risk-based measures of capital for business units on this approach. Operational risk scenarios and internal loss data are used as direct inputs into this model, while risk and control assessments, key risk indicators and external data are used to inform the operational risk scenario analysis process. TSA and BIA capital calculations are based on a multiplication factor applied to gross income, as specified by Basel and PA regulations. No risk-based information is used in these capital calculations and allocations.

Other assets

The group applies the standardised approach to property and equipment, accounts receivable and other assets. Deferred tax assets relating to temporary differences, and qualifying investments in financial, banking and insurance entities, are also included under other assets, and are risk weighted at 250% subject to the threshold rules as per Regulation 38.

RISK MITIGATION

The group is exposed to a number of risks inherent in its operations and uses a range of techniques and strategies to actively mitigate these risks.

Interest rate risk in the banking book

The internal funds transfer pricing process is used to transfer interest rate risk in the banking book (IRRBB) from the operating businesses to Group Treasury. This process allows risk to be managed centrally and holistically, in line with the group's macroeconomic outlook.

Group Treasury is mandated by the board to manage the group's IRRBB and operates within a set of risk limits aligned to the group's risk appetite. The exposures against these limits are monitored daily with oversight by FCC Risk Management and ALCCO.

The two key drivers of IRRBB, the endowment effect and the fixed-rate book, are managed by Group Treasury through balance sheet optimisation or the use of financial market instruments.

Fixed-rate book	Interest rate risk from the net fixed-rate asset/liability position is managed to low levels with residual risk stemming from timing mismatches and basis risk.
Endowment effect	The endowment effect is the most significant driver of IRRBB and is a result of the use of large portfolios of low/non-rate liabilities to fund variable-rate assets. Consequently, the group's margins naturally expand in a rate-hiking cycle, but contract in a rate-cutting cycle. Group Treasury employs a combination of structural and tactical hedging strategies to manage the endowment effect. It actively monitors the macroeconomic environment to assess the stage of the cycle and hedges this risk from an earnings perspective. Only instruments for which a liquid market exists are used for hedging purposes and, where possible, hedge accounting is used to minimise accounting mismatches.

Credit risk

Since taking and managing credit risk is core to its business, the group aims to optimise the amount of credit risk it takes to achieve its return objectives. Mitigation of credit risk is an important component of this, beginning with the structuring and approval of facilities for only those clients and within those parameters that fall within risk appetite.

Although in principle credit assessment focuses on the counterparty's ability to repay debt, credit mitigation instruments are used, where appropriate, to reduce the group's lending risk, resulting in security against the majority of exposures. These include financial or other collateral, netting agreements, guarantees or credit derivatives. The collateral types are driven by portfolio, product or counterparty type.

Credit risk mitigation instruments

- Mortgage and instalment sale finance portfolios in FNB, WesBank and Aldermore are secured by the underlying assets financed.
- FNB and Aldermore commercial credit exposures are secured by the assets of the small- and medium-sized enterprise (SME) counterparties and commercial property finance deals are secured by the underlying property and associated cash flows.
- Personal loans, overdrafts and credit card exposures are generally unsecured or secured by guarantees and sureties.
- For FNB and WesBank retail customers, insurance against disability, life and retrenchment is prescribed, where applicable.
- Structured facilities in RMB are secured as part of the structure through financial or other collateral, including guarantees, credit derivative instruments and assets.
- Counterparty credit risk in RMB is mitigated through the use of netting agreements and financial collateral.
- Working capital facilities in RMB corporate banking are secured and unsecured.

The group employs strict policies governing the valuation and management of collateral across all business areas. Collateral is managed internally to ensure that title is retained over collateral taken over the life of the transaction. Collateral is valued at inception of the credit agreement and subsequently, where necessary, through physical inspection or index valuation methods. For corporate and commercial counterparties, collateral is reassessed during the annual review of the counterparty's creditworthiness to ensure that proper title is retained. For mortgage portfolios, collateral is revalued on an ongoing basis using an index model, and physical inspection is performed at the beginning of the recovery process. For asset finance, the total security reflected represents only the realisation value estimates of the vehicles repossessed at the date of repossession. Where the repossession has not yet occurred, the realisation value of the vehicle is estimated using internal models and is included as part of total recoveries.

Concentrations in credit risk mitigation types, such as property, are monitored and managed at a product and segment level, in line with the requirements of the group credit risk appetite framework. Collateral is taken into account for capital calculation purposes through the determination of LGD. Collateral reduces LGD, and LGD levels are determined through statistical modelling techniques based on historical experience of the recovery processes.

Counterparty credit risk

The group uses various instruments to mitigate potential exposure to certain counterparties. These include financial or other collateral in line with common credit risk practices, as well as netting agreements, guarantees and credit derivatives. In addition, the group has set up a function to clear over-the-counter (OTC) derivatives centrally as part of risk mitigation.

The group uses International Swaps and Derivatives Association (ISDA) and International Securities Market Association (ISMA) agreements for netting derivative transactions and repurchase transactions, respectively. These master agreements as well as associated credit support annexes (CSA) set out internationally accepted valuation and default covenants, which are evaluated and applied daily, including daily margin calls based on the approved CSA thresholds.

The effectiveness of the hedges and mitigants in place is monitored by a combination of counterparty risk limits and market risk limits. The setting of these limits is in accordance with the wholesale credit risk framework and the market risk limit framework. The counterparty credit risk team in RMB Markets is the custodian of the policies that set collateral requirements for counterparties and portfolios. Business units are responsible for executing these policies and the RMB Business Resource Management desk is responsible for the overall management of the funding costs/benefits of the collateral. Client and portfolio exposures, concentrations and effectiveness of collateral and hedges are monitored on an ongoing basis via the relevant derivative risk committees and the quarterly derivative counterparty risk management committee in RMB.

Collateral, in the form of cash and/or cash equivalents, is the primary credit risk mitigant for counterparty credit risk. Collateral arises from margin arrangements, which are stipulated within netting agreements, and is also a function of providing market access to clients across certain business lines. The liquid nature of the collateral taken makes it effective as a mitigant in that its valuation, where applicable, is easily observable in the market and in that lower regulatory haircuts apply.

Risk insurance

The group's insurance buying philosophy is to self-insure as much as is economically viable in line with its risk appetite, and to only protect itself against catastrophic risks through the use of third-party insurers. The insurance programme includes, *inter alia*, cover for key insurable operational risk exposures such as professional indemnity, directors' and officers' liability, crime, cyber-liability, public and general liability and property. The group does not consider insurance as a mitigant in the calculation of capital for operational risk purposes.

RISK APPETITE

Risk appetite is approved by the board. The group's return and risk appetite statement informs decision-making and is aligned to FirstRand's strategic objectives. Business and strategic decisions are aligned to risk appetite measures to ensure these are met during a normal cyclical downturn. Constraints are also set for stressed conditions. At a business unit level, strategy and execution are influenced by the availability and price of financial resources, earnings volatility limits and required hurdle rates and targets.

RETURN AND RISK APPETITE STATEMENT

FirstRand's risk appetite is the aggregate level and the type of risks the group can accept within its overall risk capacity, and is captured by a number of qualitative principles and quantitative measures.

The return and risk appetite framework aims to ensure that the group maintains an appropriate balance between risk and reward. Return targets and risk limits are set to ensure the group achieves its overall strategic objectives, namely to:

- deliver long-term franchise value;
- deliver superior and sustainable economic returns to shareholders within acceptable levels of volatility; and
- maintain balance sheet strength.

The group's long-term financial targets capture its risk appetite in the context of risk, reward and growth. The targets contextualise the level of return the group expects to deliver to stakeholders under normal and stressed conditions for the direct and consequential risks it assumes in the normal course of business.

Risk capacity is the absolute maximum level of risk the group can technically assume given its current available financial resources. Risk capacity provides a reference for risk appetite and is not intended to be reached under any circumstances.

Risk limits are clearly defined risk boundaries for different measures per risk type, and are also referred to as thresholds, tolerances or triggers.

The return and risk appetite framework drives the discipline of balancing risk, return and sustainable growth across all portfolios and helps the group achieve an optimal trade-off between its ability to take on risk, and the sustainability of the returns delivered to shareholders.

The group's risk/return profile is monitored regularly, using risk appetite limits, which are measured on a point-in-time and forward-looking basis. Business performance targets for ROE and NIACC are set to ensure the delivery of the appropriate sustainable risk-adjusted returns given financial resource utilisation. Principles are set to ensure these are appropriately captured in pricing.

Risk appetite influences business plans, risk-taking activities and strategies.

The following diagram illustrates the processes to align risk and return metrics with the group's strategic objectives, commitments to stakeholders, performance measurement objectives and the management of financial resources.

FIRSTRAND RISK AND RETURN METRICS

Transition risk/return appetite and the group's response to Covid-19

As mentioned previously, the Covid-19 pandemic translated into a once-in-a-generation economic stress event. This stress event was outside the boundaries used to set the group's return and risk appetite framework and, as expected, the earnings fall and ROE outcomes in the previous financial year did not meet the constraints and targets set for a severe stress scenario. Even though the event was beyond the risk appetite scenario boundaries for earnings volatility and ROE, the group's focus on a strong balance sheet provided for resilient capital and liquidity ratios that remained within risk appetite.

The group subsequently embarked on a comprehensive assessment of risk appetite for the transition period to June 2023. The transition risk appetite was designed to guide the group back to its long-term growth and return targets. This translated into portfolio mix, tilt objectives and risk actions. The transition risk appetite directly affects business planning and risk-taking. The group has identified key areas or themes to which it will increase or decrease risk appetite allocation, as appropriate, during the transition period. These were considered from geographical, industry, client and activity (pillar) perspectives. Strategies where resource allocation/reallocation was necessary, were identified. The review ensured that appropriate risk limits were in place, that risk capacity was correctly allocated, and that the balance sheet tilts identified would result in the appropriate earnings mix, diversification and balance sheet structure.

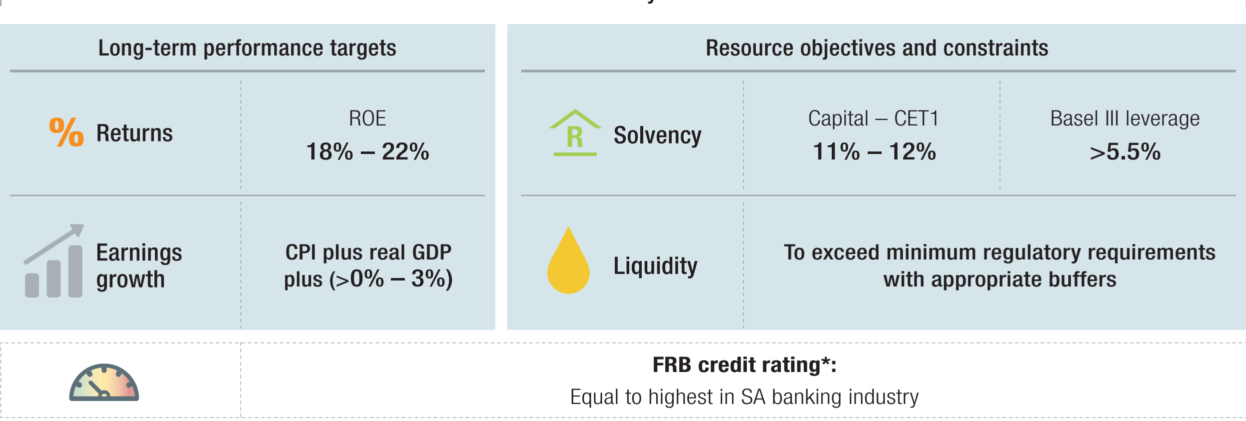
As part of the review process, the group evaluated its qualitative risk appetite principles. These principles, along with the quantitative measures contained in the return and risk appetite framework, are designed to support the group's risk culture and drive appropriate behaviour.

The following diagram outlines the long-term quantitative measures and the revised qualitative principles of the return and risk appetite framework.

RETURN AND RISK APPETITE FRAMEWORK

QUANTITATIVE MEASURES

Normal cycle



Normal downturn and stressed downturn

Limits set for earnings fall under stressed conditions, as well as minimum ROE, CET1, leverage and liquidity ratios.

RISK LIMITS

Risk limits, thresholds, tolerances and triggers are defined per risk type.

QUALITATIVE PRINCIPLES

1	Inculcate a sound risk culture across the group through aligned risk management beliefs and values. Act consistently with the group's promises at all times. Do not take risk without a deep understanding thereof. Adhere to escalation mandates for risk concerns. Openly debate to reach consensus.
2	Always act with a fiduciary mindset. Ensure honourable and ethical market, business and employee conduct in dealings with stakeholders. Treat customers and stakeholders fairly. Always deliver excellent customer service.
3	Drive effective compliance with all accounting and regulatory requirements, legislation and corporate governance in its widest sense including, amongst others anti-money laundering, anti-bribery and corruption, and data privacy and protection.
4	Always consider and actively mitigate risks to the group's reputation and franchise.
5	Commit to creating shared value and upholding sound environmental, social and governance principles in all business activities to build long-term sustainable business. Balance the need of all stakeholders (investors, customers, society and employees).
6	Ensure that climate change risks (physical and transition risks) are prudently considered, understood and managed in the group's own operations, and financing and investment activities, and that disclosure of these risks improve in alignment with the TCFD principles.
7	Drive operational excellence and efficiency within a robust control environment.
8	Manage the group's financial resources responsibly and efficiently. Ensure appropriate allocation of all financial resources including capital, funding, liquidity, risk appetite and capacity in support of portfolio optimisation. Explicitly manage trade-offs between risk, return, NIACC and growth.
9	Manage the business on a sustainable basis. This requires a through-the-cycle view but with an understanding of the cyclicality and behaviour of the business under stressed conditions, taking the lifetime risk profile of each transaction/customer into account. Manage risk appetite to ensure acceptable earnings volatility for the overall portfolio, as well as for each risk type and business segment.
10	Build and maintain a strong balance sheet which reflects prudence in funding, liquidity, capital, credit origination and provisioning strategies. Avoid excessive gearing through on- or off-balance sheet leverage. Avoid excessive concentrations in risky asset classes, sectors, instruments, segments and customer sets. Ensure the group's earnings mix remains appropriately diversified across segments, business lines, products, markets and regions.

** Refers to a rating agency's measure of a bank's intrinsic creditworthiness before considering external factors and refers to FirstRand Bank Limited.*

APPLICATION OF THE RETURN AND RISK APPETITE FRAMEWORK AND RISK LIMITS

Risk appetite, targets and limits are used to monitor the group's risk/return profile on an ongoing basis and are measured point-in-time and on a forward-looking basis. Risk appetite influences business plans, risk-taking activities and strategies. The return and risk appetite framework provides for a structured approach to define risk appetite, targets and limits that apply to each key resource as well as the level of risk that can be assumed in this context. The group cascades overall appetite into targets and limits at risk type, business and activity level, and these represent the constraints the group imposes to ensure it will deliver on its commitments at a defined confidence level. Risk management roles and responsibilities are outlined in the group risk management framework. Risk appetite measures and risk limits per risk type are discussed below.

Funding and liquidity risk

Liquidity risk is an inevitable consequence of the group's business activities. Group Treasury is mandated to manage liquidity risk on behalf of the group. This is done through ongoing engagement with stakeholders across businesses to determine funding requirements during business-as-usual and stress scenarios. Liquidity risk is managed by optimising the group's funding profile within structural and regulatory constraints, with the objective of enabling the group to operate in an efficient and sustainable manner.

Risk appetite levels are set in relation to the composition of funding as well as the marketability of the group's assets, in particular the mix and size of liquidity buffers held. These strategies are impacted by prudential requirements that include regulatory liquidity requirements (LCR and NSFR, among others). These regulatory constraints and risk appetite levels are incorporated into the group's internal funds transfer pricing framework.

The funds transfer pricing framework incorporates liquidity costs and benefits, as well as regulatory friction costs, into product pricing and performance measurement for all on- and off-balance sheet activities. The funds transfer pricing process is a key management tool for funding appetite allowing for pricing of products within the group's desired risk appetite levels.

Liquidity risk appetite is additionally monitored in terms of survival periods. Survival periods are the minimum time frames over which the cumulative cash inflows and liquidity buffers exceed cash outflows. Survival periods provide management sufficient time to take mitigating actions to adjust the group's liquidity profile. Risk appetite levels in relation to survival periods are analysed at various reporting levels. Monitoring of actual performance against limits and limit utilisation is performed and reported daily, weekly and monthly, as appropriate, to various management and governance committees.

Credit risk

The group aims to manage credit in such a way that it can achieve its overall earnings growth target and within acceptable volatility levels. The group's credit risk appetite, aligned to the group's overall risk appetite, is determined through supplementing a top-down group credit risk-appetite with an aggregated bottom-up assessment of business unit-level credit risk appetite. Stress testing is used to enable measurement of financial performance and the credit volatility profile of the different credit business units at a portfolio, segment, business, and ultimately diversified group-wide level.

The credit risk appetite statement is articulated to describe acceptable downside risk, i.e. definition of acceptable performance outcomes under different economic cycles. The key credit risk performance measures are credit loss ratios, ROE and NIACC. These measures are forward looking, and stressed assessments correspond to macroeconomic stress scenarios applied in the group's stress testing.

To achieve outcomes within these constraints, risk limits for new and existing business are articulated for credit segments. This is done to manage concentrations in credit segments contributing to high and/or volatile credit losses. Business risk limits are managed through assessing volatility of credit losses, product pricing strategies, product cost structures and capital requirements. Business risk limits include the following elements:

- counterparty limits based on borrower risk segments, e.g. FirstRand (internal) rating grades;
- collateral limits for secured lending based on collateral profiles, e.g. loan-to-value bands;
- concentration limits for single counterparty, counterparties grouped by internal ratings, collateral loan-to-value bands, gearing, industry, market, maturity and geography; and
- capacity limits based on measures of customer affordability, e.g. repayment-to-income bands.

Credit origination strategies are refined on an ongoing basis to ensure credit profiles are maintained within risk limits. The financial performance, monitoring against limits, economic growth potential, lending conditions, financial soundness and balance sheet structure of large counterparties, as well as non-performing and impairment trends, economic indicators relating to specific industries, and macroeconomic and political factors are continually assessed to determine the appropriateness of limits.

Counterparty credit risk

The counterparty credit risk management process is aligned to credit risk management practices and includes setting counterparty credit risk limits, quantifying the potential credit exposure over the life of the product, monitoring limit utilisation, collateral management and ongoing portfolio risk management.

Risk appetite for OTC derivatives and the prime financing portfolio is based on exposure appetite and a measure of the cost-to-close of a counterparty's position. Exposure appetite is based on the open exposure the group is willing to assume against a given counterparty, the activity that the counterparty is engaged in, the quality and trading liquidity of the underlying securities, and associated impact on the counterparty's credit quality.

Credit risk management sets pre-settlement, settlement, contingent, concentration and other limits for each counterparty, and policies and procedures outline the methodology for establishing these credit limits. Nominal (risk-equivalent amount) and loss-in-the-event-of-default limits are set from a prudential perspective. The loan equivalent risk amount is typically used in jurisdictions which recognise the legal right of netting exposures and collateral. In addition, regardless of the transaction credit limits to be applied, all transactions are subjected to specific country risk limits and the availability of these at the time of transacting.

Traded market risk

Quantitative and qualitative market risk limits are set in line with the group's risk appetite. The group sets quantitative limits for income volatility at a very high confidence level (99%) under distressed conditions for a specified time horizon. These are expressed as:

> VaR and ETL limits per asset class, business line and business unit;
> stress-loss limits at the risk factor level for less sophisticated trading businesses;
> regulatory capital limits;
> nominal limits for specific risk items;
> absolute loss thresholds; and
> risk concentration limits.

Qualitative risk appetite measures include business mandates, specific product and trading strategies, and process breakdown tolerance levels. There is zero tolerance for operating outside of any legislation or supervisory regulations in respect of market risk.

Utilisation of ETL limits and market risk exposure against stress exposure limits are monitored daily. Monitoring includes the reporting of limit breaches, causes thereof and the rectification of the breaches to appropriate management and governance committees. The market risk portfolio is stressed on a quarterly basis to ensure that the group's earnings volatility limits will not be breached.

Interest rate risk in the banking book

A change in interest rates impacts the group's short-term financial performance (earnings) and its long-term economic value. The group has earnings and NAV sensitivity limits in place to protect against income statement and balance sheet volatility, respectively. Since earnings and NAV volatility are inversely related, the group seeks to optimise these two measures.

Equity investment risk

Quantitative and qualitative investment risk limits are set annually in line with the group's risk appetite. Qualitative aspects are expressed in terms of strategic business mix, business activity and zero tolerance for operating outside legislative or regulatory constraints. Quantitative nominal value limits are set at a group level and then set for business activities and business units. The entire investment risk portfolio is also managed by considering concentration factors such as geographic distribution, investment value size, counterparty exposures and industry concentrations.

Regulatory capital limits are applied to restrict the balance sheet size on a risk-adjusted basis. Rating agencies' guidance is considered in the setting of limits and monitoring of actual performance against limits to limit portfolio size equity exposure (carrying value) as a percentage of Tier 1 capital.

A key element of monitoring equity investment risk is an assessment of potential earnings volatility that may arise from underlying activities. The portfolio is stressed on a quarterly basis to ensure that earnings volatility remains within appropriate levels.

Operational risk

Operational risk appetite is set at group and business level and includes qualitative and quantitative statements. Operational risk appetite is set as the total annual operational loss amount the group is willing to accept at various confidence/probability levels. This process includes setting:

> a risk appetite profile and monitoring the actual operational risk profile against appetite;
> operational loss thresholds and measuring actual loss experience against these thresholds; and
> other quantitative and qualitative measures including key risk indicators and zero tolerance statements.

Risk appetite levels are based on management's appetite for operational risk and consider historical loss experience, current actual risk exposures and the willingness of management to accept risk in pursuit of strategic objectives. For different probability levels, current actual risk exposures are estimated using internal loss data and operational risk scenarios. Actual risk exposures are monitored against the set operational risk appetite profile.

Annualised loss thresholds are defined for reporting and escalation of losses. Loss thresholds are derived from set risk appetite profile probability levels. Qualitative expressions of risk appetite emphasise risk culture and the relationship between risk and management action.

FINANCIAL RESOURCE MANAGEMENT

The management of the group's financial resources, which it defines as capital, funding and liquidity, and risk appetite, is a critical enabler of FirstRand's stated growth and return targets and is driven by the group's overall risk appetite. Group Treasury is mandated to execute on FRM strategic initiatives.

Group Treasury also manages market risk associated with balance sheet activities within regulatory and management limits, and the group's risk appetite. The aim is to protect and enhance earnings without adding to the overall risk profile.

In order to appropriately navigate the economic crisis brought about by the pandemic, for the year to 30 June 2021 the group anchored execution of its strategy to the following FRM principles:

> Carefully price for financial resources.
> Appropriately provide against lending portfolios.
> Apply strict cost management.
> Further strengthen and appropriately tilt the balance sheet to the macro outlook.
> Accrete capital and NAV – the deployment of capital to reflect the updated cost of equity.
> Emerge from Covid-19 with limited vulnerabilities, with capital for growth.

Adherence to these principles supported the group over the year under review. Earnings recovered faster than expected, with ROE and NIACC coming back strongly. The group's CET1 ratio increased to 13.5% (2020: 11.5%) and the group is in a position to pay a full-year dividend at the bottom end of its cover range.

The management of the group's financial resources is executed through Group Treasury and is independent of the operating businesses. This ensures the required level of discipline is applied in the allocation and pricing of financial resources. This also ensures that Group Treasury's mandate is aligned with the portfolio's growth, return and volatility targets to deliver shareholder value.

FirstRand uses the group's macroeconomic house view for budgeting, forecasting and business origination strategies. The house view focuses on the key macroeconomic variables that affect the group's financial performance and risk position. The macroeconomic outlook for South Africa, and a number of other jurisdictions where the group operates, is reviewed on a monthly basis over a three-year forecast horizon. The house view for other jurisdictions with less frequent data updates is updated at least quarterly. Business plans for the next three years are captured in the budget and forecasting process. Scenario planning is then used to assess whether the desired profile can be delivered and whether the group will remain within the constraints that have been set. These scenarios are based on changing macroeconomic variables, plausible event risks, and regulatory and competitive changes.

The group adopts a disciplined approach to the management of its foreign currency investments in subsidiaries and their balance sheets. The allocation of resources and management of local and foreign currency risks are within an approved risk framework. The framework for the management of external debt considers sources of sovereign risk and foreign currency funding capacity, as well as the macroeconomic vulnerabilities of South Africa. The group continues to employ self-imposed structural borrowing and liquidity risk limits which are more onerous than those required in terms of regulations.

The group's philosophy is that, in the longer term, foreign currency assets should be supported by foreign currency liabilities, primarily in the same jurisdiction. It aligns with one of the group's strategic priorities to increase diversification by jurisdiction, which is evidenced by the integration of the MotoNovo business into the Aldermore group in the UK, as well as the utilisation of the RMB International (Mauritius) platform for the group's rest of Africa dollar exposures.

STRESS TESTING AND SCENARIO PLANNING

Stress testing and scenario planning serve a number of regulatory and internal business purposes. The group employs a comprehensive, consistent and integrated approach to stress testing and scenario analysis. The group evaluates the impact of various macroeconomic scenarios on the business, and considers the need for adjustment to origination and takes appropriate actions. More severe macroeconomic scenarios are run less frequently, but are critical to determine or test capital buffers and other risk appetite measures, enhance capital and liquidity planning, validate existing quantitative risk models and improve the understanding of required management actions/responses.

Stress tests are conducted throughout the group for most legal entities, whether regulated or not. The various stress test processes are supported by a robust and holistic framework, underpinned by principles and sound governance, and aligned to regulatory requirements and best practice.

Stress testing and scenario analysis provide the board and management with useful insight into the group's financial position, level of earnings volatility, risk profile and future capital position. Results are used to challenge and review certain of the group's risk appetite measures, which, over time, influence the allocation of financial resources across businesses and impact performance measurement.

From a regulatory perspective, stress testing and scenario analysis feed into the group's ICAAP and recovery plan. The ICAAP stress test is an enterprise-wide, macroeconomic stress test covering material risks that the group is exposed to. It typically covers a three-year horizon, with separate ICAAP submissions completed for the group's regulated banking entities which are subject to Basel II and III requirements. The severity of the macroeconomic scenarios ranges from a mild downturn to severe stress scenarios. In addition to macroeconomic scenarios, the group incorporates event risks and reverse stress test scenarios that highlight contagion between risk types. Techniques and methodologies range from multi-factor and regression analyses for macroeconomic stress tests to single-factor sensitivities and qualitative impact analysis for event risks and reverse stress tests.

The group's recovery plan builds on its ICAAP. The scenarios defined for ICAAP are extended and incorporate the following scenarios:

- systemic;
- idiosyncratic;
- fast-moving; and
- slow-moving.

The results of the ICAAP and recovery plan process are submitted to the PA annually and are key inputs into:

- determination of the capital buffer and targets;
- dividend proposals;
- the group's earnings volatility measures; and
- performance management requirements.

The group regularly runs additional *ad hoc* stress tests for both internal and regulatory purposes. Internally, risk-specific stress tests may utilise various techniques depending on the purpose (e.g. limit setting or risk identification). From a regulatory perspective, the group expects to be subjected to more frequent supervisory stress tests covering a range of objectives.

These stress events and scenario analyses are not only focused on the downside impacts on earnings and capital, but generally allow the group to also assess its operational resilience. The process is further used to identify and deploy mitigating measures to support customers and the broader economy within the boundaries of prudential constraints.

Climate change and related risks have also become relevant when considering stress and scenario analysis. At this stage, FirstRand is investigating and exploring scenarios and methodologies for the assessment of transitional risk and related physical risk scenarios.

Given that climate-related scenario analysis (across both transitional and physical risks) is still at an early stage, the group currently considers only event-based scenarios for certain portfolios and segments. These have been incorporated in the 2021 ICAAP for group and bank.

RECOVERY AND RESOLUTION REGIME

Financial Stability Board (FSB) member countries are required to have recovery and resolution plans in place for all systemically significant financial institutions as per the *Key Attributes of Effective Resolution Regimes*. The PA adopted this requirement and has, as part of the first phase, required D-SIBs to develop their own recovery plans. Improving the stability of the banking system by strengthening banks' ability to manage themselves through a potentially severe stress situation is of national importance. Guidance issued by the FSB and PA has been incorporated into the group's comprehensive recovery plan.

Recovery planning

The purpose of the recovery plan is to document how the group's board and management, including its operating businesses and key subsidiaries, namely FRB (including its foreign branches), Aldermore Group, FirstRand Namibia and FNB Botswana, will recover from a severe stress event/scenario that threatens their commercial viability.

The recovery plan:

> analyses the potential for severe stress in the group that could cause material disruption to the financial system;
> considers the type of stress event(s) that would be necessary to trigger its activation;
> analyses how the entity might potentially be affected by the event(s);
> considers how to limit the impact of the event(s) and reduce or prevent any negative contagion across the group;
> lists a menu of potential recovery actions available to the board and management to counteract the event(s); and
> assesses how the entity might recover from the event(s) as a result of those actions.

The recovery plan forces the group to perform an extensive self-assessment exercise to determine if there are any potential idiosyncratic vulnerabilities that it may be exposed to, and then reconcile these exposures to its own risk appetite and strategy. Strategies to optimise the balance sheet structure and preserve the group's critical functions to support the recovery from a severe stress event with the least negative impact are considered. This process enables banks to better understand critical functions for customers and the financial system, as well as which assets are most marketable to facilitate recovery. Where inefficiencies are identified, these can be addressed to ensure the group is more streamlined, adaptable and resilient to stress.

FirstRand has submitted multiple annually revised versions of its recovery plan to the PA, the most recent being in December 2020.

Resolution framework

The South African Reserve Bank (SARB) released a discussion paper on South Africa's intended approach to bank resolution on 23 July 2019. The paper outlined the objectives of the proposed resolution framework with an emphasis on open-bank resolution. Open-bank resolution is applicable to systemically important institutions where the bank continues to function in its existing form under its own licence post resolution. The proposed resolution framework provides more clarity on the regulator's approach to further enhance financial stability in the country.

The Financial Sector Laws Amendment Bill (FSLAB) introduced a new tranche of loss-absorbing instruments, i.e. first loss after capital (Flac) instruments, which are subordinated to other unsecured creditors and intended for bail-in in resolution. Flac requirements will be applicable to banks with open-bank resolution plans.

Another key amendment contained in the FSLAB is the establishment of the Corporation for Deposit Insurance (CoDI). CoDI will be a separate entity within the SARB, mandated to manage a deposit insurance scheme (DIS) in South Africa which is designed to protect depositors' funds and enhance financial stability.

The SARB has published a series of discussion papers focusing on the key aspects that will affect and facilitate the implementation of a resolution framework in South Africa, and also commenced projects to consider the complexities of operationalising the DIS in South Africa. These discussion papers will assist the SARB in drafting the regulatory standards for resolution once the FSLAB is promulgated. The FSLAB was tabled in Parliament in August 2020 and adopted by the Parliament Standing Committee on Finance in May 2021. The FSLAB still needs to be placed on the National Assembly plenary agenda for consideration and passing prior to formal promulgation.

Discussion papers released in 2021 for comment include:

> **Data definition and reporting requirements for deposit insurance in South Africa (February 2021):** Provides banks' data and technical experts with an understanding of CoDI's data requirements, reporting options and technology proposals.
> **Proposed requirements for funding in resolution (April 2021):** Sets out the proposed requirements for designated institutions to estimate, assess and report on their potential funding and liquidity needs in resolution.
> **Proposed principles and requirements for Flac instruments (May 2021):** Outlines the characteristics, calibration and implementation period for proposed Flac instruments.
> **Using the deposit insurance fund to reimburse covered depositors (May 2021):** Provides details about the processes to be followed to utilise the deposit insurance fund and the reimbursement methods to be used by CoDI. This paper is also referred to as the "payout paper".
> **Deposit insurance coverage paper feedback and survey (June 2021):** Provides feedback on the comments the banking industry previously submitted on the current DIS coverage and reporting proposals. The final part of the document includes details on the 2021 deposit insurance survey which banks will be required to complete towards the end of the year.

LINK BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES

Basis of consolidation

Consolidation of all group entities is in accordance with IFRS for financial reporting and in accordance with the Regulations for regulatory reporting. There are some differences in the manner in which entities are consolidated for financial and regulatory reporting. The following table provides the basis on which the different types of entities are treated for regulatory and IFRS purposes.

REGULATORY AND IFRS CONSOLIDATION TREATMENT

<table>
<tr><th rowspan="2">SHAREHOLDING</th><th colspan="3">REGULATORY*</th><th rowspan="2">IFRS</th></tr>
<tr><th>BANKING, SECURITY FIRM, FINANCIAL</th><th>INSURANCE</th><th>COMMERCIAL</th></tr>
<tr><td>Less than 10%</td><td colspan="2">Aggregate of investments (CET1, AT1 and Tier 2):
> Amount exceeding 10% CET1 – deduction against corresponding component of capital.
> Up to 10% – risk weight based on nature of instrument and measurement approach.</td><td rowspan="2">Standardised approach:
> Minimum risk weight of 100%.
Internal ratings-based approach:
> Maximum risk weight of 1 250%.</td><td>Financial asset equity instruments at mandatory fair value through profit or loss, or fair value through other comprehensive income.</td></tr>
<tr><td>Between 10% and 20%</td><td colspan="2">CET1:
> Individual investments in excess of 10% CET1 – deduction against CET1.
> Individual investments up to 10% apply threshold rules.
AT1 and Tier 2:
> Deduct against corresponding component of capital.</td><td>As noted above, except where the substance of the transaction indicates that the group is able to exercise significant influence or joint control over the entity, equity accounting is applied.</td></tr>
<tr><td>Between 20% and 50%</td><td>> Legal or de facto support (other significant shareholder) – proportionately consolidate.
> No other significant shareholder – apply threshold rules as set out above for shareholding between 10% and 20%.</td><td rowspan="2">> Apply deduction methodology, with 100% derecognition of IFRS NAV.
> Cost of investment subject to threshold rules.</td><td rowspan="2">Standardised and internal ratings-based approach:
> Individual investment greater than 15% of CET1, AT1 and Tier 2: risk weight at 1 250%.
> Individual investment up to 15% of CET1, AT1 and Tier 2: risk weight at no less than 100%.
> Aggregate of investments exceeding 60% of CET1, AT1 and Tier 2: excess risk weighted at 1 250% (standardised only).</td><td>Equity accounting as the group is deemed to have the ability to exercise significant influence or joint control, but does not control the entity.</td></tr>
<tr><td>Greater than 50%</td><td>Entity conducting trading activities/other bank, security firm or financial entity – consolidate.</td><td>Consolidate, unless the transaction indicates that the group has joint control, in which case equity accounting will apply.</td></tr>
</table>

* *As per the Regulations.*

THRESHOLD RULES

As per Regulation 38(5), investments are aggregated as part of threshold deductions (significant investments and deferred tax assets relating to temporary differences). Aggregate investments up to 15% of CET1 capital are risk weighted at 250% and amounts exceeding 15% of CET1 capital are deducted against CET1 capital.

INSURANCE ENTITIES

Material wholly owned insurance subsidiaries incorporated in South Africa include FirstRand Life Assurance Limited with a NAV of R1 282 million (2020: R813 million), FRISCOL with a NAV of R272 million (2020: R405 million) and FirstRand Short Term Insurance with a NAV of R215 million (2020: R204 million).

Mapping of financial statement categories to regulatory risk categories

Pillar 3 disclosure is prepared in accordance with the regulatory frameworks applicable to the group while the annual financial statements are prepared in accordance with IFRS. The amount included under regulatory scope excludes balances related to insurance entities. The risk measurement approaches to calculate regulatory capital, applicable to each of the risk frameworks, are described on page 21. The following table provides the differences between the amounts included in the balance sheet and the amounts included in the regulatory frameworks.

LI1: DIFFERENCES BETWEEN ACCOUNTING AND REGULATORY SCOPES OF CONSOLIDATION AND MAPPING OF FINANCIAL STATEMENT CATEGORIES WITH REGULATORY RISK CATEGORIES

	As at 30 June 2021							
	Carrying values							
			Items under regulatory frameworks					
R million	Statement of financial position	Regulatory scope	Credit risk	Counter-party credit risk	Securiti-sation	Market risk	Equity invest-ment risk	No capital/ deducted from capital
Assets								
Cash and cash equivalents	135 059	134 962	115 844	15 319	3 799	–	–	–
Derivative financial instruments*	82 728	82 728	–	82 563	165	71 825	–	–
Commodities	18 641	18 641	4 417	–	–	18 641	–	–
Investment securities**	368 187	360 138	246 544	–	–	100 402	13 402	–
Advances#	1 223 434	1 223 434	1 128 693	60 939	33 802	–	–	–
Other assets	9 216	9 032	9 032	–	–	–	–	–
Current tax asset	409	318	318	–	–	–	–	–
Non-current assets and disposal groups held for sale	565	565	–	–	–	–	565	–
Reinsurance assets	387	–	–	–	–	–	–	–
Investments in associates	8 644	8 644	–	–	–	–	8 644	–
Investments in joint ventures	2 116	2 122	–	–	–	–	2 122	–
Property and equipment	20 190	20 180	20 180	–	–	–	–	–
Intangible assets	9 932	9 629	–	–	–	–	–	9 629
Investment properties	659	659	659	–	–	–	–	–
Defined benefit post-employment asset	9	9	–	–	–	–	–	9
Deferred income tax asset	6 104	5 813	5 549	–	–	–	–	264
Investment in subsidiaries	–	1 265	–	–	–	–	1 265	–
Total assets	**1 886 280**	**1 878 139**	**1 531 236**	**158 821**	**37 766**	**190 868**	**25 998**	**9 902**
Liabilities								
Short trading positions	18 945	18 945	–	–	–	18 945	–	–
Derivative financial instruments*	84 436	84 436	–	84 266	170	75 841	–	–
Creditors, accruals and provisions	22 765	21 577	–	–	–	–	–	21 577
Current tax liability	1 280	1 276	–	–	–	–	–	1 126
Liabilities directly associated with disposal groups classified as held for sale	613	613	613	–	–	–	–	–
Deposits	1 542 078	1 542 033	–	26 367	25 155	–	–	1 490 511
Employee liabilities	11 319	11 217	–	–	–	–	–	11 217
Other liabilities	7 741	7 741	–	–	–	–	–	7 741
Policyholder liabilities	7 389	–	–	–	–	–	–	–
Tier 2 liabilities	20 940	19 572	–	–	–	–	–	19 572
Deferred income tax liability	887	851	–	–	–	–	–	851
Amounts due to holding company and fellow subsidiary companies	–	446	–	–	–	–	–	446
Total liabilities	**1 718 393**	**1 708 707**	**613**	**110 633**	**25 325**	**94 786**	**–**	**1 553 191**

* *The amounts shown in the regulatory scope column do not equal the sum of the amounts shown in the remaining columns due to derivative financial instruments subject to regulatory capital for both counterparty credit risk, securitisations and market risk (trading book).*

** *The amounts shown in the regulatory scope column do not equal the sum of the amounts shown in the remaining columns due to investment securities subject to regulatory capital under credit and market risk frameworks, and listed and unlisted equities under the equity investment risk framework.*

Advances net of impairments.

The amounts from different balance sheet line items included in the risk frameworks are described in the following table.

BALANCE SHEET LINE ITEMS INCLUDED IN DIFFERENT RISK FRAMEWORKS

RISK FRAMEWORK	DESCRIPTION
Credit risk	> Cash and cash equivalents, debt investment securities and commodities in the banking book. > Advances included in the credit risk framework are shown net of impairments in the balance sheet, while impairments are not used to reduce advances when determining the regulatory EAD. > EAD also includes off-balance sheet items, such as guarantees, irrevocable commitments, letters of credit and credit derivatives. Credit risk mitigation is included in the calculation of EAD. > Other assets including accounts receivable; non-current assets (and related liabilities) and disposal groups held for sale, if applicable; current tax assets, property and equipment; investment properties and deferred tax assets related to temporary differences are included in the credit risk framework.
Counterparty credit risk	Collateral cash and deposits as part of netting agreements, derivative financial assets and liabilities and reverse repurchase advances. Exposures included in counterparty credit risk relate both to trading and banking book activities.
Securitisations	Cash, advances, derivative financial instruments held for trading, payables and deposits. Capital is determined on the investment security note exposure retained by the group.
Market risk	Derivative financial instruments (assets and liabilities), commodities, held for trading and elected fair value investment securities and short trading position liabilities.
Equity investment risk	Listed and non-listed equity investment securities, investments in money market funds, non-current assets held for sale related to equity investments, if applicable, and investments in associates, joint ventures and subsidiaries.
No capital/deducted from capital	Intangible assets, defined benefit post-employment assets and deferred tax assets, excluding temporary differences, are deducted from capital.

LI2: MAIN SOURCES OF DIFFERENCES BETWEEN REGULATORY EXPOSURE AMOUNTS AND CARRYING VALUES IN FINANCIAL STATEMENTS

	As at 30 June 2021				
	Items subject to regulatory frameworks				
R million	Credit risk	Counter-party credit risk	Securiti-sation	Market risk	Equity investment risk
Assets carrying value per regulatory scope of consolidation	1 531 236	158 821	37 766	190 868	25 998
Liabilities carrying value per regulatory scope of consolidation	613	110 633	25 325	94 786	–
Total net amount under regulatory scope of consolidation	1 530 623	48 188	12 441	96 082	25 998
Off-balance sheet amounts	232 129		5 676	–	–
Differences in valuations	234 420	59 611	–	–	–
Differences due to netting rules and credit risk mitigation	(280 485)	(75 819)	–	–	–
Differences due to provisions	45 597	–	–	–	–
Difference due to potential future exposure for counterparty credit risk	–	12 402	–	–	–
Differences due to prudential filters	(103 387)	–	20 474	–	(7 094)
Exposure amounts considered for regulatory purposes	1 658 897	44 382	38 591	96 082	18 904
Reconciliation to regulatory amounts in Pillar 3 tables					
CR6: AIRB – FRBSA EAD post-credit conversion factors (CCF) and credit risk mitigation (CRM)	1 153 213	–	–	–	–
CR4: Standardised approach on- and off-balance sheet amount of exposure post-CCF and post-CRM	505 481	–	–	–	–
CR10: Specialised lending exposures under slotting on- and off-balance sheet amount	203	–	–	–	–
CCR1: EAD post-CRM	–	40 453	–	–	–
CCR3: Standardised approach for derivatives for subsidiaries in the rest of Africa and foreign branches – total credit exposure	–	3 929	–	–	–
SEC1: Total securitisation exposures in the banking book	–	–	38 591	–	–
Carrying value of investments*	–	–	–	–	18 904
Total	1 658 897	44 382	38 591	96 082	18 904

* *For the carrying value of investments refer to page 150 of this report.*

Prudent valuations

VALUATION METHODOLOGY

In terms of IFRS, the group is required or elects to measure certain assets and liabilities at fair value. The group has established control frameworks and processes at an operating business level to independently validate its valuation techniques and inputs used to determine fair value measurements. At an operating business level, valuation specialists are responsible for the selection and implementation, as well as any changes to the valuation techniques used to determine fair value measurements.

Fair value measurements are determined by the group on both a recurring and non-recurring basis.

RECURRING FINANCIAL INSTRUMENTS

Recurring fair value measurements include assets and liabilities that IFRS requires or permits to be measured at fair value at every reporting date. This includes:

> financial assets measured at fair value through profit or loss and fair value through other comprehensive income;

> financial liabilities measured at fair value; and

> non-financial assets, including investment properties and commodities.

NON-RECURRING FAIR VALUE MEASUREMENTS

Non-recurring fair value measurements are those triggered by particular circumstances and include:

> the classification of assets and liabilities as non-current assets or disposal groups held for sale under IFRS 5 where the standard requires the measurement to be the lower of carrying amount and fair value less costs to sell;

> IAS 36 where the recoverable amount is based on fair value less costs to sell; and

> these fair value measurements are determined on a case-by-case basis as they occur within each reporting period.

VALUATION PROCESS

The group classifies assets and liabilities measured at fair value using a fair value hierarchy that reflects whether observable or unobservable inputs are used in determining the fair value of the item. Fair value may be determined using unadjusted quoted prices in active markets for identical assets and liabilities where they are readily available and the price represents actual and regularly occurring market transactions. If this information is not available, fair value is measured using another valuation technique that maximises the use of relevant observable inputs and minimises the use of unobservable inputs.

Where a valuation model is applied and the group cannot mark-to-market, it applies a mark-to-model approach, subject to valuation adjustments. Mark-to-model is defined as any valuation which has to be benchmarked, extrapolated or otherwise calculated from a market input. In assessing whether a mark-to-model valuation is appropriate, the group will consider:

> as far as possible, that market inputs are sourced in line with market prices;

> generally accepted valuation methodologies are used consistently for particular products unless deemed inappropriate by the relevant governance forums;

> an in-house-developed model is based on appropriate assumptions, which have been assessed and challenged by suitably qualified parties independent of the development process;

> formal change control procedures are in place;

> awareness exists of the weaknesses of the models used, which is appropriately reflected in the valuation output;

> the model is subject to periodic review to determine the accuracy of its performance; and

> valuation adjustments are only made when appropriate, e.g. to cover uncertainty of the model valuation – the group considers factors such as counterparty and own credit risk when making appropriate valuation adjustments.

FINANCIAL INSTRUMENTS	
Fair value hierarchy	**Valuation methodology**
Instruments where fair value is determined using unadjusted quoted prices in an active market The fair value of these instruments is determined using unadjusted quoted prices in an active market for identical assets. An active market is one in which transactions occur with sufficient volume and frequency to provide pricing information on an ongoing basis.	This category includes listed bonds and equity, exchange-traded derivatives and short-trading positions. Where the financial instrument has a bid or ask price (e.g. in a dealer market), the group uses a price within the bid-ask spread that is most representative of fair value in the circumstances.
Instruments where fair value is determined using inputs from observable market data or an inactive market Valuation uses quoted prices in an active market of similar instruments or valuation models using observable inputs from observable market data.	This category includes loans and advances to customers, equities listed in an inactive market, certain debt instruments, OTC derivatives or exchange-traded derivatives where a market price is not available, deposits, other liabilities and Tier 2 liabilities. Valuation techniques include: > discounted cash flows; > option pricing models; > industry standard models; > price/earnings models; > the JSE debt market bond pricing model; and > third-party valuations.
Instruments where fair value is determined using inputs from unobservable data The group applies its own assumptions about what market participants assume in pricing assets and liabilities.	This category includes certain loans and advances to customers, certain OTC derivatives such as equity options, investments in debt and equity instruments, certain deposits such as credit-linked instruments, and certain other liabilities. Valuation techniques include: > discounted cash flows; > option pricing models; > industry standard models; > price/earnings models; and > third-party valuations.
Non-financial assets	
Non-financial assets that are measured at fair value include commodities and investment properties. > Commodities are classified as level 1 in the fair value hierarchy and fair value is measured using quoted prices in active markets. > Investment properties are classified as level 3 and fair value is determined using a discounted cash flow valuation technique.	

VALIDATION PROCESS

The group has established control frameworks and processes at a business level to independently validate its valuation techniques and inputs used to determine its fair value measurements. Valuation inputs are independently sourced but where an independent source is not available, inputs are subject to the independent validation process. At an operating business level, valuation specialists are responsible for the selection, implementation and any changes to the valuation techniques used to determine fair value measurements. Valuation committees comprising key management representatives have been established in each operating business and at a group level. They are responsible for overseeing the valuation control process and considering the appropriateness of the valuation techniques applied in fair value measurement. The valuation models and methodologies are subject to independent review and approval at business level by the technical teams, valuation committees and relevant risk committees annually (or more frequently, if appropriate).

PRUDENT VALUATION ADJUSTMENTS

Capital regulatory frameworks require financial institutions to apply prudent valuations to all fair value assets and liabilities. The difference between prudent value and fair value in terms of IFRS is called a prudent valuation adjustment (PVA), and is deducted from CET1 capital. The following table provides descriptions and methodologies adopted for different PVAs.

PVA	DESCRIPTION
Close-out uncertainty, of which:	
> Mid-market value: market price uncertainty	This adjustment is required should there be uncertainty around the absolute level at which positions are fair-valued under financial reporting standards.
> Close-out costs	A close-out cost PVA is calculated at a defined valuation exposure level (price or curve bucketing segment). This adjustment is incremental to any exit price provisions or adjustments already considered in financial reporting.
> Concentration	This PVA is an estimate of the valuation impact arising from concentrated valuation positions that a bank may have at any point in time. It should capture the risk associated with holding a relatively large position in relation to market liquidity.
Early termination	This PVA considers the potential losses arising from the early termination of client trades.
Model risk	This PVA considers the variation in valuation estimates arising due to the potential existence of a range of models or model calibrations, and the lack of a firm exit price for the specific product.
Operational risk	This PVA considers the potential losses that may be incurred as a result of operational risk related to valuation processes.
Investing and funding costs	Reflect the valuation uncertainty in the funding costs that other users of Pillar 3 data would factor into the exit prices for a position or portfolio. These include funding valuation adjustments or derivative exposures.
Unearned credit spreads	PVA to take account of the valuation uncertainty in the adjustment necessary to include the current value of expected losses due to counterparty default on derivative positions, including the valuation uncertainty on CVAs.
Future administrative costs	This adjustment considers the administrative costs and future hedging costs over the expected life of the exposures for which a direct exit price is not applied for the close-out costs. This valuation adjustment has to include the operational costs arising from hedging, administration and settlement of contracts in the portfolio. The future administrative costs are incurred by the portfolio or position, but are not reflected in the core valuation model or the prices used to calibrate inputs to that model.
Other	Other PVAs which are required to take into account factors that will influence the exit price but which do not fall into any of the categories listed above.

The group has opted to apply the simplified approach for the calculation of PVAs for the subsidiaries in the rest of Africa, as this is permitted for subsidiaries that make up less than 5% of the group's gross assets and liabilities. The simplified approach requires banks to set the PVA at 0.1% of the sum of the absolute value of fair-valued assets and liabilities which are included in the materiality threshold calculation.

PV1: PRUDENT VALUATION ADJUSTMENTS

R million		As at 30 June 2021							
		Equity	**Interest rates**	**Foreign exchange**	**Credit**	**Commo-dities**	**Total**	**Of which: In the trading book**	**Of which: In the banking book**
1.	Closeout uncertainty, of which:	**27**	**337**	**2**	**–**	**0.63**	**367**	**251**	**116**
2.	Mid-market value	**27**	**170**	**–**	**–**	**0.12**	**197**	**165**	**32**
3.	Closeout cost	**–**	**167**	**2**	**–**	**0.51**	**170**	**86**	**84**
9.	Unearned credit spreads	**–**	**–**	**–**	**12**	**–**	**12**	**12**	**–**
11.	Other	**–**	**1**	**–**	**–**	**–**	**1**	**1**	**–**
12.	**Total adjustment**	**27**	**338**	**2**	**12**	**0.63**	**380**	**264**	**116**

R million		As at 30 June 2020							
		Equity	Interest rates	Foreign exchange	Credit	Commo-dities	Total	Of which: In the trading book	Of which: In the banking book
1.	Closeout uncertainty, of which:	–	321	1	–	2	324	263	61
2.	Mid-market value	–	109	–	–	1	110	84	26
3.	Closeout cost	–	212	1	–	1	214	179	35
9.	Unearned credit spreads	–	–	–	25	–	25	25	–
11.	Other	–	–	–	–	–	–	–	–
12.	**Total adjustment**	–	321	1	25	2	349	288	61

Mid-market value and closeout cost are the most significant PVAs for the group. As part of ongoing refinements to the PVA methodology unearned credit spread PVA is captured explicitly and shown separately as at 30 June 2021. This was previously captured by applying conservatism to closeout costs and market price uncertainty PVAs. The previous year's unearned credit spreads have therefore been restated. Other refers to the simplified approach PVA result that was estimated for the African subsidiaries. The group estimates operational risk, model risk, early termination, investing and funding costs future administration costs PVAs to be zero. Lines 4–8 and 10 of *PV1: Prudent valuation adjustments* template have, therefore, been omitted.

CAPITAL MANAGEMENT

Introduction and objectives

The group actively manages capital aligned to strategy and risk appetite/profile. The capital planning process ensures that the CET1, Tier 1 and total capital adequacy ratios remain within or above target ranges and regulatory minimums across economic and business cycles.

Capital is managed on a forward-looking basis and the group remains appropriately capitalised under a range of normal and severe stress scenarios. The group aims to back all economic risk with loss-absorbing capital and remains well capitalised in the current environment. FirstRand actively manages its capital stack to ensure an efficient capital structure, closely aligned to group internal targets. The optimal level and composition of capital are determined after taking the following into account:

- prudential requirements, including any prescribed buffer;
- rating agencies' considerations;
- investor expectations;
- peer comparisons;
- strategic and organic growth plans;
- economic and regulatory capital requirements;
- proposed regulatory, tax and accounting changes;
- macro environment and stress test impacts; and
- issuance of capital instruments.

ICAAP

ICAAP is integral to the group's risk, capital management and decision-making processes and is deeply embedded across the group. Best-practice standards and methodologies are adopted to assess the overall risk profile of the group and embed a responsible risk culture across the group. A key input into ICAAP is an assessment of economic risk, with the outcome used to assess the group's capital position and targeted level of capitalisation, i.e. the group is capitalised at the higher of economic and regulatory capital requirements.

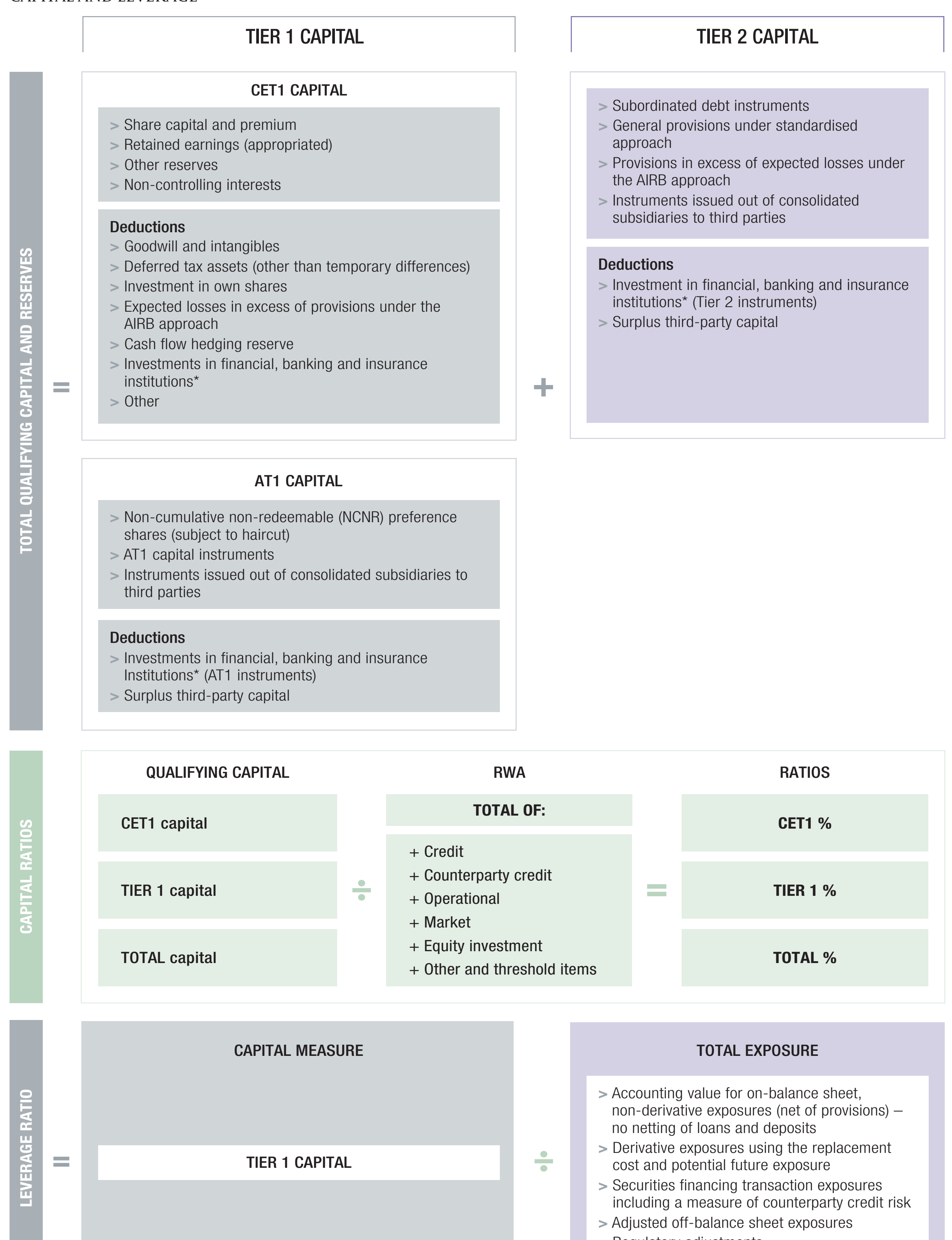
ICAAP is considered in:

- the setting of strategy and risk appetite;
- risk assessment and management;
- forward-looking capital planning:
  - budget and earnings volatility;
  - stress and scenario analysis;
  - capital target setting; and
  - dividend decisions.
- performance measurement; and
- recovery planning, which is an extension of ICAAP.

Capital adequacy and leverage

The following diagram defines the main components of capital and leverage as per the Regulations.

CAPITAL AND LEVERAGE



* *As per Regulation 38(5) threshold rules. The full deduction method is applied to insurance entities, i.e. NAV for insurance entities is derecognised from consolidated IFRS NAV.*

Year under review

During the year under review the group maintained strong capital and leverage ratios in excess of the regulatory minimums and internal targets.

CAPITAL ADEQUACY AND LEVERAGE POSITIONS

	As at 30 June 2021			
	Capital			Leverage
%	CET1	Tier 1	Total	Total
Regulatory minimum*	8.0	10.0	12.0	4.0
Internal target	11.0 – 12.0	>12.0	>14.25	>5.5
FirstRand actual**				
– Including unappropriated profits	**13.5**	**14.1**	**16.3**	**7.7**
– Excluding unappropriated profits	11.8	12.4	14.6	6.8
FRB actual,#**				
– Including unappropriated profits	**14.5**	**15.2**	**17.8**	**7.4**
– Excluding unappropriated profits	12.9	13.6	16.2	6.7
FRBSA actual,#**				
– Including unappropriated profits	**14.1**	**14.9**	**17.6**	**7.2**
– Excluding unappropriated profits	12.4	13.1	15.8	6.3

* *Excluding the individual capital requirement (Pillar 2B). The D-SIB requirement for both the group and bank is 1.5%. The group's countercyclical buffer requirement remained at 0%.*

** *Including the transitional impact of IFRS 9.*

FRB – including foreign branches and FRBSA – excluding foreign branches.

The PA temporarily reduced the Pillar 2A capital requirement from 1% to 0% in response to the Covid-19 pandemic in 2020. The minimum leverage ratio requirement was not adjusted as part of the temporary relief measures. The PA published *Directive 5 of 2021*, *Capital framework for South Africa based on the Basel III framework*, reinstating the Pillar 2A requirement of 1% in 2022, as well as requiring the first 1% of the bank's D-SIB add-on to be met with CET1 capital. The group's internal targets still remain appropriate as a maximum D-SIB and fully phased-in Pillar 2A requirement were assumed in the target assessment. The internal targets were also not adjusted for any temporary Covid-19 relief measures.

A detailed analysis of key drivers of the year-on-year movement in the supply of capital and RWA is included in the FirstRand analysis of financial results for the year ended 30 June 2021 at https://www.firstrand.co.za/investors/financial-results/, and the FRB annual report for the year ended 30 June 2021 at https://www.firstrand.co.za/investors/annual-reporting/.

SUPPLY OF CAPITAL

COMPOSITION OF CAPITAL

	FirstRand		FRB*	
	As at 30 June			
R million	**2021**	2020	**2021**	2020
CET1 capital excluding unappropriated profits	**124 445**	126 903	**92 439**	91 964
Unappropriated profits	**17 991**	744	**11 323**	354
CET1 capital including unappropriated profits	**142 436**	127 647	**103 762**	92 318
AT 1 capital	**7 091**	6 665	**4 996**	3 412
Tier 1 capital	**149 527**	134 312	**108 758**	95 730
Tier 2 capital	**23 440**	26 944	**18 830**	21 936
Total qualifying capital	**172 967**	161 256	**127 588**	117 666

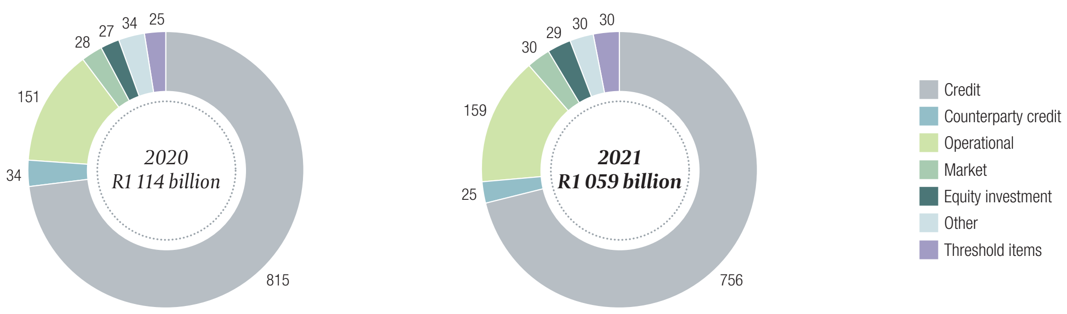
* *FRB including foreign branches.*

DEMAND FOR CAPITAL

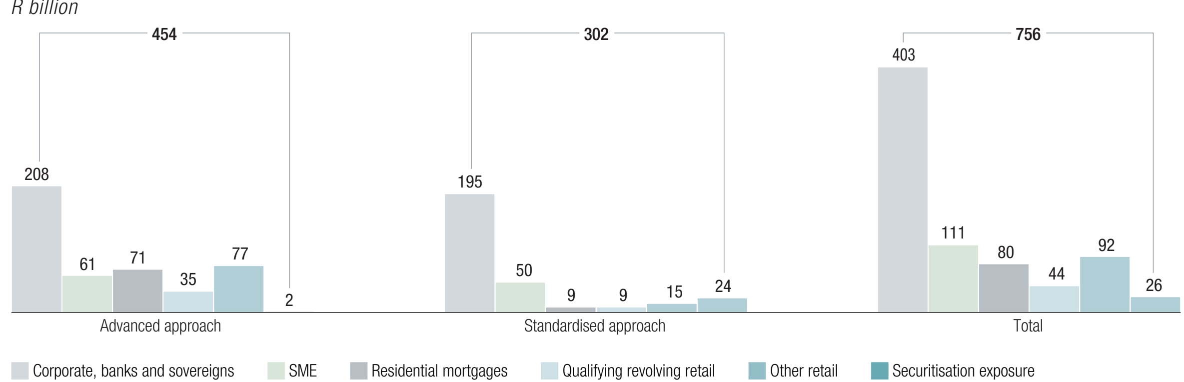
The following sections provide an analysis of RWA per risk type, as well as a breakdown of credit RWA for FirstRand and FRB.

FirstRand demand for capital

FirstRand RWA analysis

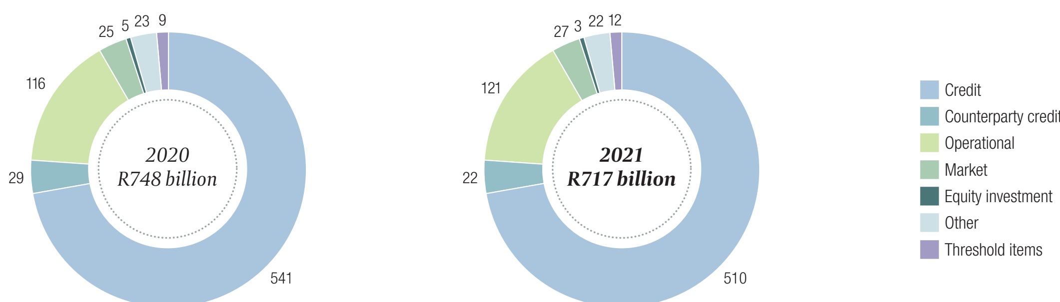


FirstRand overview of credit RWA – June 2021
R billion



FRB demand for capital

FRB RWA analysis



FRB overview of credit RWA – June 2021

R billion

Refer to the *Standardised disclosures* section of this report for additional capital and leverage disclosures required in terms of the Regulations:

> KM1: Key prudential requirements

> CC1: Composition of regulatory capital

> CC2: Reconciliation of regulatory capital to balance sheet

> OV1: Overview of RWA

> LR1: Summary comparison of accounting assets vs leverage ratio

> LR2: Leverage ratio common disclosure template

Capital adequacy position for the group and its regulated entities

The group's registered banking subsidiaries and foreign branches must comply with PA regulations and those of their respective in-country regulators, with primary focus placed on Tier 1 and total capital adequacy ratios. The group's approach is that all entities must be adequately capitalised on a standalone basis. Based on the outcome of detailed stress testing, each entity targets a capital level in excess of in-country regulatory minimums.

Adequate controls and processes are in place to ensure that each entity is adequately capitalised to meet in-country regulatory and economic capital requirements. Capital generated by subsidiaries/branches in excess of targeted levels is returned to FirstRand, usually in the form of dividends or return of profits. Except for capital preservation measures announced by in-country regulators, no restrictions were experienced on the repayment of dividends or profits.

Capital for insurance entities is calculated on a regulatory basis in line with the Insurance Act 18 of 2017 and regulations, as well as on an economic basis. Capital is risk sensitive and is also used to understand the exposure to insurance risk. The insurance group's own risk and solvency assessment (ORSA) assesses the impact of various stresses on the solvency position of the insurance entities and informs capital targets. Target levels for capital coverage are specified in the insurance risk appetite statement and entities remain appropriately capitalised considering the impact of Covid-19 on actuarial capital assessments.

CAPITAL ADEQUACY POSITIONS OF FIRSTRAND AND ITS REGULATED ENTITIES

	As at 30 June				
	2021				2020
	Total minimum requirement*	**RWA** R million**	**Tier 1**	**Total capital adequacy**	Total capital adequacy
BANKING (%)					
Basel III (PA regulations)					
FirstRand[#]		**1 058 916**	**14.1**	**16.3**	14.5
FirstRand Bank[#,†]		**717 153**	**15.2**	**17.8**	15.7
FirstRand Bank South Africa[#]	**12.0**	**691 249**	**14.9**	**17.6**	15.5
FirstRand Bank London		**24 582**	**21.0**	**22.0**	15.9
FirstRand Bank India		**765**	**82.9**	**82.9**	31.8
FirstRand Bank Guernsey		**360**	**27.5**	**27.5**	12.9
Basel III (local regulations)					
Aldermore Bank	**12.0**	**117 614**	**15.4**	**18.1**	16.6
FNB Namibia	**10.0**	**30 596**	**17.1**	**19.5**	17.6
Basel II (local regulations)					
FNB Mozambique	**12.0**	**1 796**	**23.8**	**23.7**	27.2
RMB Nigeria	**10.0**	**3 039**	**49.4**	**49.4**	44.9
FNB Botswana	**12.5**	**23 224**	**14.6**	**18.0**	21.4
FNB Eswatini	**8.0**	**4 824**	**19.6**	**20.4**	22.1
First National Bank Ghana	**11.5**	**2 617**	**38.4**	**38.4**	51.4
Basel I (local regulations)					
FNB Tanzania	**14.5**	**848**	**60.1**	**60.1**	20.5
FNB Lesotho	**8.0**	**981**	**14.8**	**16.5**	17.0
FNB Zambia	**10.0**	**2 764**	**19.6**	**27.3**	23.2
INSURANCE (TIMES)[‡]					
FirstRand Life Assurance (FNB Life)			**1.7**		
FirstRand STI	**1.0**		**3.3**		
FRISCOL			**1.0**		

* *Excluding the individual capital requirement (Pillar 2B) for PA regulated entities.*

** *RWA for entities outside of South Africa converted to rand using the closing rate at 30 June 2021.*

[#] *Including unappropriated profits.*

[†] *Including foreign branches.*

[‡] *Solvency capital requirements per quarterly returns as at 30 June 2021.*

Economic capital

Economic capital (EC) is included in the group's strategic capital planning, risk measurement and portfolio management. EC is incorporated in the group's internal target assessment, specifically focusing on the level of loss-absorbing capital required to cover the group's economic risk. It is defined as an internal measure of risk which estimates the amount of capital required to cover unexpected losses. A granular bottom-up calculation, incorporating correlations, concentration risks and diversification benefits attributable to the group's aggregate portfolio, forms the basis for the risk-based capital methodology. The group continues to enhance the use of EC by facilitating risk-based decisions, including capital allocation.

The assessment of economic risk aligns with FirstRand's economic capital framework to ensure the group remains solvent at a confidence interval of 99.93%, and that it can deliver on its commitments to stakeholders over a one-year horizon. The economic capital framework is subject to annual review and appropriate governance, and covers the following:

- the risk universe;
- consistent standards and measurements for each risk type, where relevant;
- continual refinements to risk drivers, sensitivities, correlations and aggregations;
- transparent and verifiable results, subject to rigorous governance processes; and
- alignment and integration with the group's risk and capital frameworks.

Regular reviews of the economic capital position are carried out across businesses, enabling efficient portfolio optimisation with respect to FRM and portfolio behaviour. At 30 June the group reported the following EC multiples (loss-absorbing capital/economic capital requirement) on a post-diversification basis.

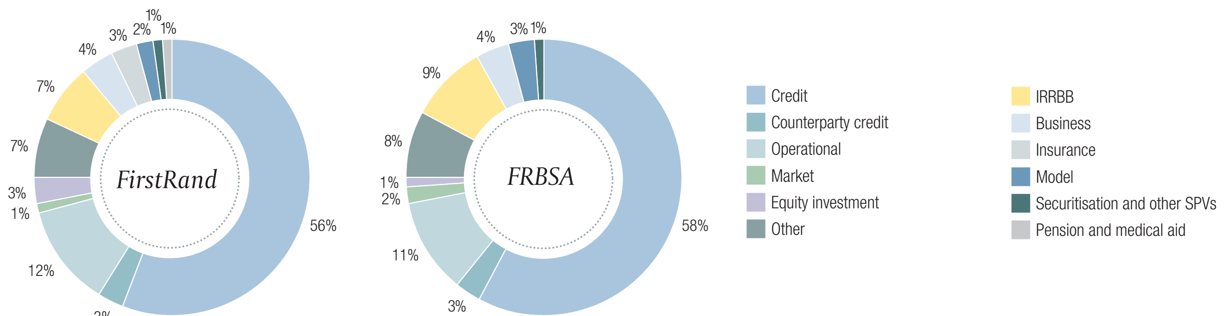
EC MULTIPLE

Times	**2021**	2020
FirstRand	**1.6**	1.5
FRBSA	**1.9**	1.6

EC incorporates inter-risk aggregation/diversification for both FirstRand and FRBSA. Intra-risk aggregation/diversification is included within risk types. Various approaches (such as variance-covariance, copula, constant factor, etc.), which vary in complexity, are used in aggregating EC for risk types.

The following graphs unpack the EC requirement per risk type (post diversification) at 30 June 2021.

Economic capital analysis per risk type (post diversification)



Regulatory update

<table>
<tr><td rowspan="9">BASEL III REFORMS</td><td colspan="2">The PA issued Guidance Note 4 of 2021, Proposed implementation dates in respect of specified regulatory reforms, (July 2021). Proposed implementation dates are outlined below.</td></tr>
<tr><td>2022</td><td>2023 onwards</td></tr>
<tr><td>1 January 2022</td><td>1 January 2023</td></tr>
<tr><td>> Large exposures framework
> Total loss-absorbing capacity (TLAC) holdings</td><td>> Revised standardised approach for credit risk framework
> Revised internal ratings-based approach framework
> Revised operational risk framework
> Leverage ratio – revised exposure definition</td></tr>
<tr><td>1 June 2022</td><td>1 January 2024</td></tr>
<tr><td>> Interest rate risk in the banking book (including disclosure requirements)</td><td>> Minimum capital requirements for market risk
> Revised credit valuation adjustment framework</td></tr>
<tr><td>1 July 2022</td><td>1 January 2023 to 2028</td></tr>
<tr><td>> Revisions to the securitisation framework</td><td>> Output floor</td></tr>
<tr><td colspan="2">The group continues to participate in quantitative impact studies to assess the impact of the proposed reforms on the group's capital and leverage ratios.</td></tr>
<tr><td rowspan="2">FINANCIAL CONGLOMERATES</td><td colspan="2">The Financial Sector Regulation Act empowers the PA to designate a group of companies as a financial conglomerate and to also regulate and supervise such designated financial conglomerates. The PA is also empowered to issue prudential standards relating to financial conglomerates, and these must be complied with by the holding companies of such financial conglomerates.
The PA published the following documents in this regard in the last 12 months:
> September 2020: Financial conglomerate designation criteria published to provide clarity on the factors the PA will consider when designating financial conglomerates.
> October 2020: Draft standards, excluding the capital standards, were released for a third round of consultation.
> July 2021: Draft capital standards released for public consultation.</td></tr>
<tr><td colspan="2">FirstRand has not been designated as a financial conglomerate, however, its designation will be reassessed on a frequent basis.</td></tr>
</table>

LIQUIDITY RISK AND FUNDING

Introduction and objectives

The group recognises two types of liquidity risk:

Funding liquidity risk – the risk that a bank will not be able to effectively meet current and future cash flow and collateral requirements without negatively affecting its normal course of business, financial position or reputation.

Market liquidity risk – the risk that market disruptions or lack of market liquidity will cause a bank to be unable (or able, but with difficulty) to trade in specific markets without affecting market prices significantly.

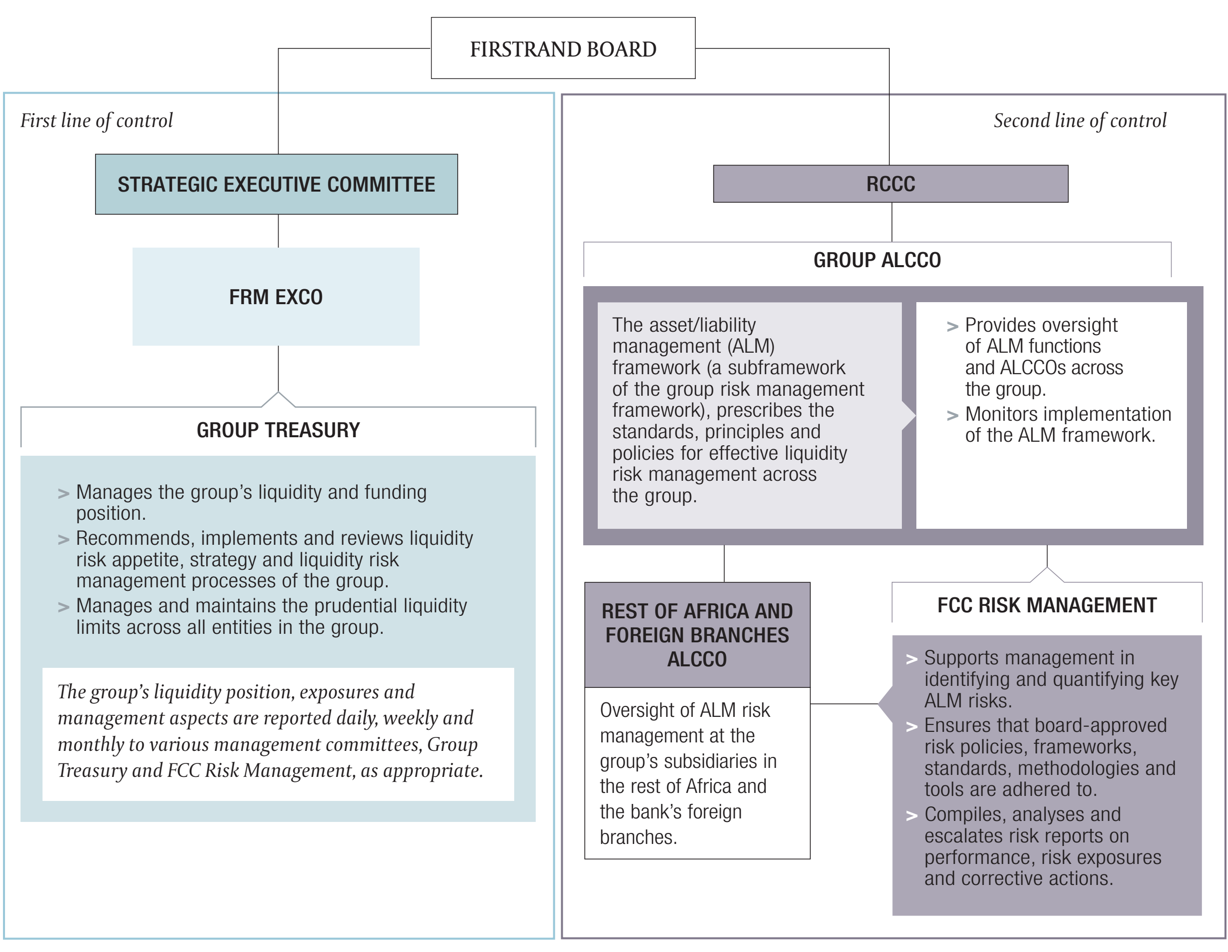
The group aims to fund its activities in an efficient and flexible manner, from diverse and sustainable funding pools, whilst operating within prudential limits and incorporating rating agency requirements. The group's objective is to maintain and enhance its deposit market share by appropriately rewarding depositors. It targets a funding profile with natural liquidity risk offsets. Due to the liquidity risk introduced by its business activities, the group optimises its funding composition within structural and regulatory constraints to enable business to operate in an efficient and sustainable manner.

Compliance with prudential liquidity ratios is a key consideration in the group's funding strategy, particularly as it seeks to price appropriately for liquidity on a risk-adjusted basis. The group continues to offer innovative and competitive products to further grow its deposit franchise whilst also optimising its institutional funding profile. These initiatives continue to improve the group's funding and liquidity profile.

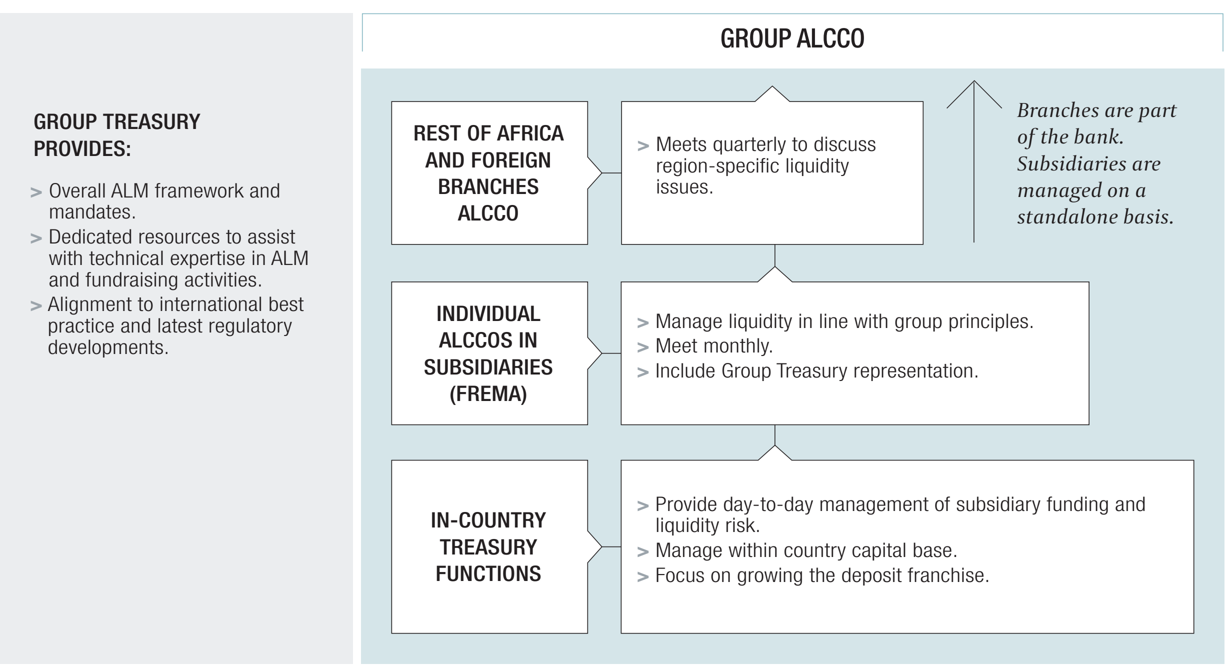
The group entered the Covid-19 crisis in a strong liquidity position, and the diversification and strength of the deposit franchise resulted in the liquidity position improving during the crisis. The group remains well funded with adequate liquidity buffers to meet both prudential liquidity requirements and internal targets. In order to allow markets to continue to operate smoothly and provide banks with temporary liquidity relief during the crisis, the PA issued *Directive 1 of 2020, Temporary measures to aid compliance with the liquidity coverage ratio during the Coronavirus (Covid-19) pandemic stress period*, which temporarily reduced the prudential LCR requirement from 100% to 80%, effective 1 April 2020. The pandemic continues to negatively affect the South African economy, and key risk metrics and early warning indicators are closely monitored. The group regularly forecasts its liquidity position and uses scenario analysis in its decision-making process. FirstRand continues to hold appropriate liquidity buffers and can access the required funding to withstand anticipated near-term liquidity risks.

Organisational structure and governance

GROUP AND BANK



REST OF AFRICA AND FOREIGN BRANCHES



Funding management

South Africa is characterised by a low discretionary savings rate and a higher degree of contractual savings captured by institutions such as pension funds, life insurers and asset managers. A portion of these contractual savings translate into institutional funding for banks, which is riskier from a liquidity perspective than funding raised through banks' deposit franchises. South African corporates and the public sector also make use of financial intermediaries that provide bulking and maturity transformation services for their cyclical cash surpluses. Liquidity risk is, therefore, structurally higher in South Africa than in most financial markets. The risk is, however, to some extent mitigated by the following market dynamics:

> concentration of customer current accounts with the large South African banks;

> the closed rand system, where rand transactions are cleared and settled through registered banks and clearing institutions domiciled in South Africa;

> the prudential exchange control framework; and

> South African banks' low dependence on foreign currency funding.

Considering the structural features of the South African market, the group's focus remains on achieving an improved risk-adjusted and diversified funding profile, enabling it to meet prudential liquidity requirements.

In line with the South African banking industry, FirstRand raises a large proportion of its funding from the institutional market. The group utilises both domestic and international debt programmes to maximise efficiency and flexibility in accessing institutional funding opportunities. The group's strategy for domestic vanilla public issuances is to offer benchmark tenor bonds to meet investor requirements and facilitate secondary market liquidity. This enables the group to identify cost-effective funding opportunities whilst maintaining an understanding of available market liquidity.

FUNDS TRANSFER PRICING

The group operates a funds transfer pricing framework which incorporates liquidity costs and benefits as well as regulatory friction costs in product pricing and performance measurement for all on- and off-balance sheet activities. Where fixed-rate commitments are undertaken (fixed-rate loans or fixed-rate deposits), transfer pricing also includes the cost of hedges to immunise business against interest rate risk. Businesses are effectively incentivised to:

> enhance and preserve funding stability;

> ensure that asset pricing is aligned to the group's liquidity risk appetite;

> reward liabilities in accordance with behavioural characteristics and maturity profile; and

> manage contingencies with respect to potential funding drawdowns.

FUNDING MEASUREMENT AND ACTIVITY

FRB remains the primary debt-issuing entity in the group. Although its funding profile reflects the structural features described earlier, it derives a greater proportion of total funding from customer deposits and therefore has a lower reliance on institutional funding compared to the South African banking industry aggregate.

The group manages its funding profile by source, counterparty type, market, product and currency. The deposit franchise remains the most efficient and stable source of funding, representing 69% of total group funding liabilities at June 2021 (2020: 66%).

Growing its deposit franchise across all market segments remains the group's primary focus from a funding perspective, with continued emphasis on savings and investment products. The group continues to develop and refine its product offering to attract a greater proportion of available funding, with improved client pricing adjusted for source and behaviour. In addition to customer deposits, the group accesses the

domestic money markets frequently and the debt capital markets from time to time. The group issues various capital and funding instruments in the capital markets on an auction and reverse-enquiry basis, with strong support from investors.

Refer to the group's analysis of financial results for the year ended 30 June 2021, which is available at https://www.firstrand.co.za/investors/financial-results/ for an update on the group's funding portfolio.

Foreign currency balance sheet

FUNDING STRUCTURE OF FOREIGN OPERATIONS

In line with the group's strategy to build strong deposit franchises in all its operations, foreign operations are categorised in terms of their stage of development from greenfields start-ups to mature subsidiaries and can be characterised from a funding perspective as follows:

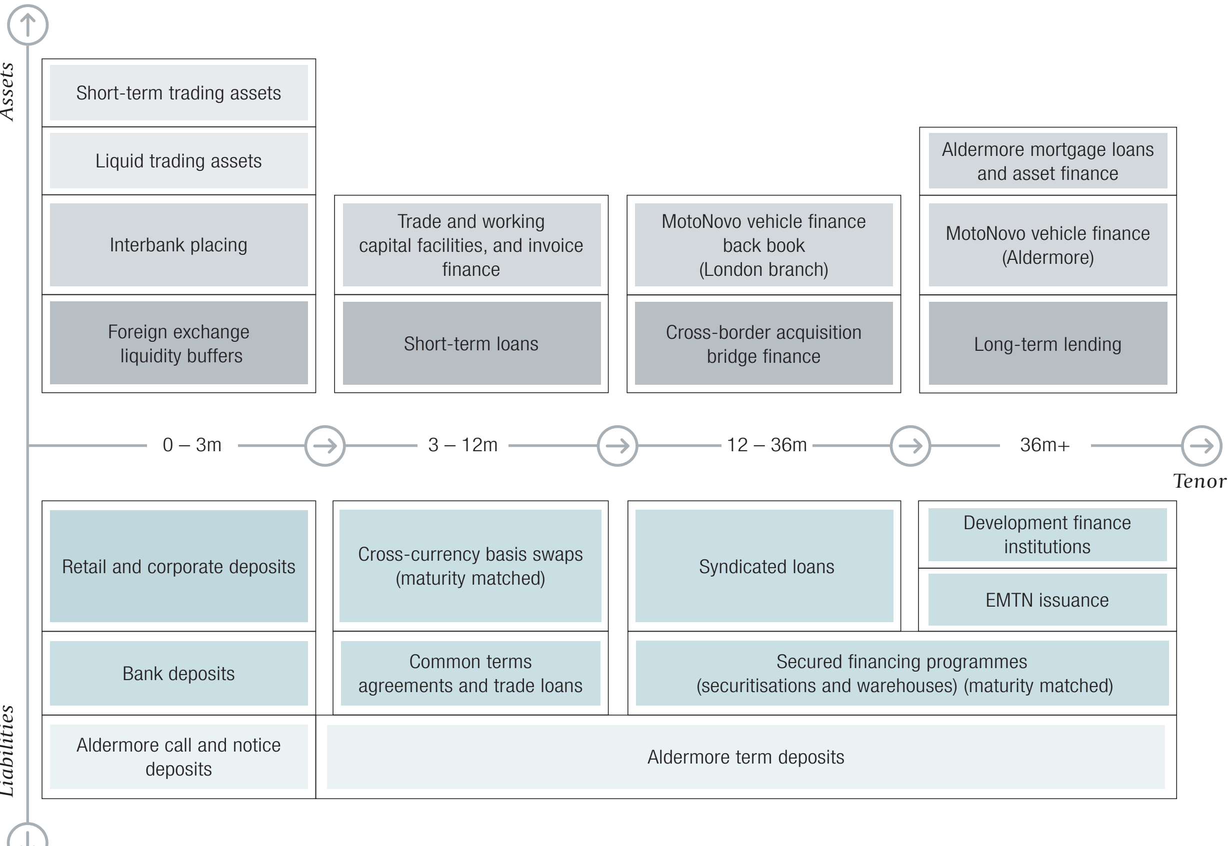
- Mature deposit franchises – all assets are largely funded in-country. The pricing of funding is determined via in-country funds transfer pricing, which is already in place.
- Growing deposit franchises – assets are first funded in-country at relevant funds transfer pricing rates. Any excess over and above in-country capacity is funded by the group's hard currency funding platforms. This is a temporary arrangement, which allows these entities to develop adequate in-country deposit bases.
- No deposit franchises – all activities are funded by the group's hard currency funding platforms in the professional market.

In all categories, the pricing of funding is determined from the established in-country funds transfer pricing process.

GROUP FUNDING SUPPORT

Any funding provided by the group is constrained by the appetite set independently by the credit risk management committee or the board. In arriving at limits, the credit risk management committee considers the operating jurisdiction and any sovereign risk limits that should apply. Group Treasury must, therefore, ensure that any resources provided to foreign entities are priced appropriately and within agreed limits.

GRAPHICAL REPRESENTATION OF THE FOREIGN CURRENCY BALANCE SHEET



Liquidity risk management

OVERVIEW

Liquidity risk is a consequential risk. The group, therefore, continuously monitors and analyses the potential impact of other risks and events on its funding and liquidity position to ensure that the group's activities preserve and improve funding stability. This ensures that the group can operate through periods of stress when access to funding could be constrained.

Mitigation of funding and market liquidity risks is achieved via contingent liquidity risk management. Buffer stocks of high-quality, highly liquid assets are held either to be sold into the market or to provide collateral for loans to cover any unforeseen cash shortfall that may arise.

The group's approach to liquidity risk management distinguishes between structural, daily and contingency liquidity risk management across all currencies, and various approaches are employed in the assessment and management of these on a daily, weekly and monthly basis as illustrated in the following table.

LIQUIDITY RISK MANAGEMENT APPROACHES

STRUCTURAL LIQUIDITY RISK	DAILY LIQUIDITY RISK	CONTINGENCY LIQUIDITY RISK
Managing the risk that structural, long-term, on- and off-balance sheet exposures cannot be funded timeously or at reasonable cost.	Ensuring that intraday and day-to-day anticipated and unforeseen payment obligations can be met by maintaining a sustainable balance between liquidity inflows and outflows.	Maintaining a number of contingency funding sources to draw upon in times of economic stress.
> Setting liquidity risk tolerance. > Setting liquidity strategy. > Ensuring substantial diversification of funding sources. > Assessing the impact of future funding and liquidity needs considering anticipated liquidity shortfalls or excesses. > Setting the approach to liquidity management in different currencies and countries. > Ensuring adequate liquidity ratios. > Ensuring an appropriate structural liquidity gap. > Maintaining a funds transfer pricing methodology and process.	> Managing intraday liquidity positions. > Managing the daily payment queue. > Monitoring net funding requirements. > Forecasting cash flows. > Performing short-term cash flow analysis for all currencies (individually and in aggregate). > Managing intragroup liquidity. > Managing central bank clearing. > Managing net daily cash positions. > Managing and maintaining market access. > Managing and maintaining collateral.	> Managing early warning and key risk indicators. > Performing stress testing, including sensitivity analysis and scenario testing. > Maintaining product behaviour and optionality assumptions. > Ensuring that an adequate and diversified portfolio of liquid assets and buffers are in place. > Maintaining the contingency funding plan.

STRESS TESTING AND SCENARIO ANALYSIS

Regular and rigorous stress tests are conducted on the funding profile and liquidity position as part of the overall stress testing framework with a focus on:

- quantifying the potential exposure to future liquidity stresses;
- analysing the possible impact of economic and event risks on cash flows, liquidity, profitability and solvency position; and
- proactively evaluating the potential secondary and tertiary effects of other risks on the group.

LIQUIDITY CONTINGENCY PLANNING

Frequent volatility in funding markets and the fact that financial institutions can, and have, experienced liquidity problems even during benign economic conditions highlight the importance of HQLA and contingency management processes.

The group's ability to meet all of its daily funding obligations and emergency liquidity needs is of paramount importance and, in order to ensure that this is always adequately managed, the group maintains a liquidity contingency plan.

The objective of liquidity contingency planning is to achieve and maintain funding levels in a manner that allows the group to emerge from a potential funding crisis with its reputation intact and maintain its financial position for continuing operations. The plan is designed to:

- support effective management of liquidity and funding risk under stressed conditions;
- establish clear roles and responsibilities in the event of a liquidity crisis; and
- establish clear invocation and escalation procedures.

The liquidity contingency plan provides a pre-planned response mechanism to facilitate swift and effective responses to contingency funding events. These events may be triggered by financial distress in the market (systemic) or bank-specific events (idiosyncratic) which may result in the loss of funding sources.

The plan is reviewed annually and tested regularly via a group-wide liquidity stress simulation exercise to ensure the document remains up to date, relevant and familiar to all key personnel within the group who have a role to play, should it ever experience an extreme liquidity stress event.

Liquidity risk position

The following table summarises the group's available sources of liquidity.

FIRSTRAND'S COMPOSITION OF HQLA*

	As at 30 June	
R billion	**2021**	2020
Cash and deposits with central banks	**51**	60
Government bonds and bills	**218**	169
Other liquid assets	**44**	51
Total liquid assets	**313**	280

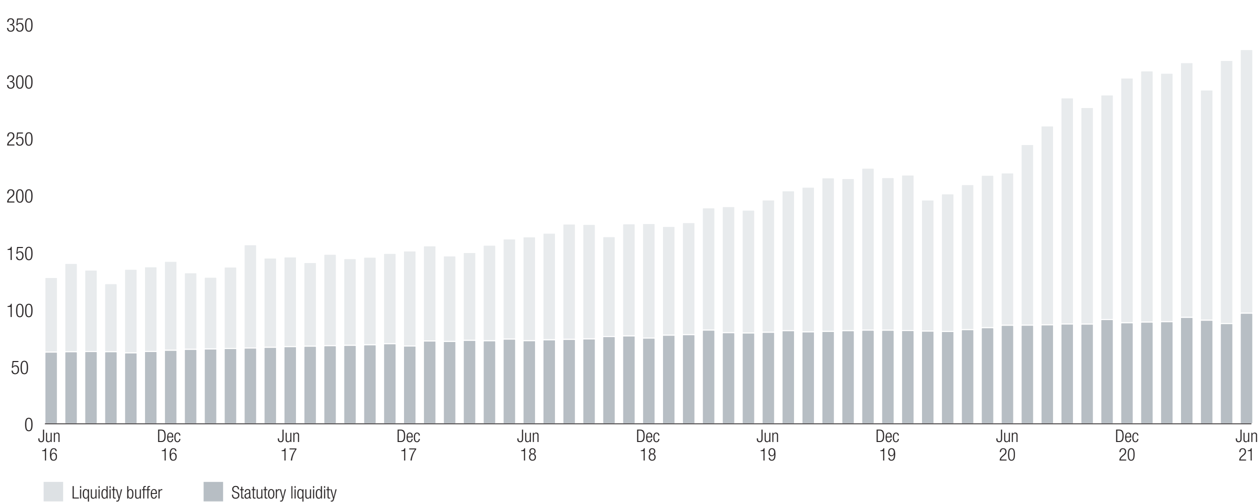
* *The composition of HQLA is calculated as a simple average of 91 days of daily observations over the period ended 30 June 2021 for FRBSA and the London branch, as well as FNB Botswana and FNB Namibia. The remaining banking entities, including Aldermore, and the India and FNB Channel Island branches, are based on the quarter-end values.*

The group's portfolio of HQLA provides a liquidity buffer against unexpected liquidity stress events or market disruptions, and serves to facilitate changing liquidity needs of the operating businesses. The composition and quantum of available liquid assets are defined behaviourally by considering both the funding liquidity-at-risk and the market liquidity depth of these instruments. Additional liquidity overlays in excess of prudential requirements are determined based on stress testing and scenario analysis of cash inflows and outflows.

The group has built its liquid asset holdings in accordance with asset growth, risk appetite and regulatory requirements. The increase in HQLA was not due to a requirement for large buffers. Due to changes in market liquidity conditions, the group's market business increased its client financing activities, which resulted in larger holdings of securities and a related increase in HQLA. The HQLA portfolio is continually assessed and actively managed to ensure optimal composition, cost and quantum.

*FRBSA assets held as a source of stress funding**

R billion



* *The assets held as a source of stress funding, observed at each month-end, consist of highly liquid assets that can secure funding and form part of FRBSA's liquidity buffer and statutory liquidity portfolio.*

Liquidity ratios for the group and bank at June 2021 are summarised below.

	Group*		FRBSA*	
%	**LCR****	**NSFR**	**LCR****	**NSFR**
Regulatory minimum	**80**	**100**	**80**	**100**
Actual	**113**	**123**	**117**	**122**

* *The group's LCR and NSFR include FRB, and all other banking subsidiaries. The FRBSA LCR and NSFR reflect South African operations only.*

** *The LCR is calculated as a simple average of 91 days of daily observations over the period ended 30 June 2021 for FRBSA and the London branch, as well as FNB Botswana and FNB Namibia. The remaining banking entities, including Aldermore, and the India and FNB Channel Island branches, are based on the quarter-end values. The figures are based on the regulatory submissions to the PA.*

Funding from institutional clients is a large contributor to the group's net cash outflows measured under the LCR. Other significant contributors to cash outflows are corporate funding and off-balance sheet facilities granted to clients. The group continues to execute on strategies to increase deposit franchise funding and reduce reliance on institutional sources.

Refer to the *Standardised disclosures* section of this report for additional liquidity disclosures required in terms of the Regulations:

– LIQ1: LCR
– LIQ2: NSFR

CREDIT RISK

Introduction and objectives

Credit risk is the risk of loss due to the non-performance of a counterparty in respect of any financial or other obligation. For fair value portfolios, the definition of credit risk is expanded to include the risk of losses through fair value changes arising from changes in credit spreads. Credit risk also includes credit default risk, pre-settlement risk, country risk, concentration risk and securitisation risk.

Credit risk management across the group is split into three distinct portfolios, which are aligned to customer profiles. These portfolios are retail, commercial and corporate:

- retail credit is offered by FNB, WesBank and Aldermore to individuals and SMEs with a turnover of up to R12.5 million;
- commercial credit focuses on relationship banking offered by FNB and WesBank to businesses that are mainly single-banked, and asset and invoice finance in Aldermore; and
- corporate credit is offered by RMB and WesBank to large corporate multi-banked customers.

As advances are split across the operating businesses, default risk is allocated to the income-receiving portfolio.

The goal of credit risk management is to maximise the group's measure of economic profit, NIACC, within acceptable levels of earnings volatility by maintaining credit risk exposure within acceptable parameters.

Credit risk is one of the core risks assumed as part of achieving the group's business objectives. It is the most significant risk type in terms of regulatory and economic capital requirements.

Credit risk management objectives are twofold:

Risk control: Appropriate limits are placed on the assumption of credit risk and steps taken to ensure the accuracy of credit risk assessments and reports. Deployed and central credit risk management teams fulfil this task.

Management: Credit risk is taken within the constraints of the group's return and risk appetite, and credit risk appetite frameworks. The credit portfolio is managed at an aggregate level to optimise the exposure to this risk. Business units and deployed risk functions, overseen by the group credit risk management function in ERM and relevant board committees, fulfil this role.

Based on the group's credit risk appetite, measuring ROE, NIACC and earnings volatility, credit risk management principles include holding the appropriate level of capital and pricing for risk on an individual and portfolio basis. The scope of credit risk identification and management practices across the group therefore spans the credit value chain, including risk appetite, credit origination strategy, risk quantification and measurement, as well as the collection and recovery of delinquent accounts.

Credit risk is managed through the implementation of comprehensive policies, processes and controls to ensure a sound credit risk management environment with appropriate credit granting, administration, measurement, monitoring and reporting.

Credit risk appetite measures are set in line with overall risk appetite. The aim is to deliver an earnings profile that will perform within acceptable levels of volatility determined by the group.

- Credit risk appetite is determined using both a top-down group credit risk appetite and an aggregated bottom-up assessment of the business unit-level credit risk appetites.
- Stress testing is used to model financial performance and measure the credit volatility profile of the different credit businesses units at a portfolio, segment, operating business and ultimately diversified group-wide level.

Formulated business unit-level credit risk appetite statements are annually reviewed and approved, and risk limits are reported quarterly to and monitored by business unit credit or executive committees and the relevant portfolio credit policy and risk appetite approval committees (subcommittees of the group credit risk management committee). In the credit risk appetite process, ERM group credit risk management is responsible for:

- setting the requirements in the credit risk appetite framework;
- articulating a top-down group credit risk appetite statement;
- assessing alignment between the top-down statement with aggregation of the individual business unit credit risk appetite statements;
- reporting risk appetite breaches to the FirstRand credit risk management committee jointly with the credit portfolio heads; and
- reporting risk appetite breaches to the RCCC jointly with the operating business CROs.

Types of credit risk limits are outlined below.

BUSINESS UNIT LIMITS	
Counterparty limits	Borrower's risk grades are mapped to the FirstRand rating scale.
Collateral limits	For secured loans, limits are based on collateral profiles, e.g. loan-to-value bands.
Capacity limits	Measures of customer affordability.
Concentration limits	Limits for concentrations to, for example, customer segments or high collateral risk.
PORTFOLIO-LEVEL LIMITS	
Additional limits for subportfolios subject to excessive loss volatility.	

YEAR UNDER REVIEW AND FOCUS AREAS

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> Covid-19 created significant economic dislocation, directly impacting consumers and businesses, particularly in industries impacted by lockdown measures. > This required a comprehensive credit risk management response across various disciplines, including the development of payment relief programmes, assessment of impairments within the context of the economic outlook, and credit origination incorporating industry and high-frequency transactional data in the previous financial year. These continued to be monitored during the 2021 financial year with responses revised to incorporate changes to the macroeconomic environment and lockdown measures, and as high-frequency data emerged. > The group's strong customer relationships, associated high-frequency data and platform focus enabled rapid and comprehensive responses across the credit value chain. > The group continued to monitor the sovereign rating outlook and the ratings of associated entities with proactive revisions, where required. > The group continued to roll out data architecture refinements related to BCBS 239 to further enhance group credit risk data aggregation and reporting. > Despite challenging economic conditions, the group benefited from prudent risk mitigation measures and provisioning in prior periods.	> Significant focus on climate risk to refine the measurement and management of the interaction between climate risk and credit risk. > The group continues to monitor Covid-19 developments and adjust its credit risk response as new trends emerge or the outlook changes. > Continued focus on ensuring that the group has a comprehensive programme structure in place to manage the adoption of Basel III reforms. > The group continues to leverage BCBS 239 activities to integrate credit risk aggregation and reporting, and credit risk stress testing activities.

CREDIT RISK REPORTING

Reporting of credit risk information follows the credit governance structure illustrated on the next page. The credit portfolio committees (retail, commercial and wholesale) report to the FirstRand credit risk management committee on the risk profile of the advances in each portfolio on a semi-annual basis. These reports include a review of portfolio trends and quality of new business originated to enable an aggregated credit portfolio view for the group.

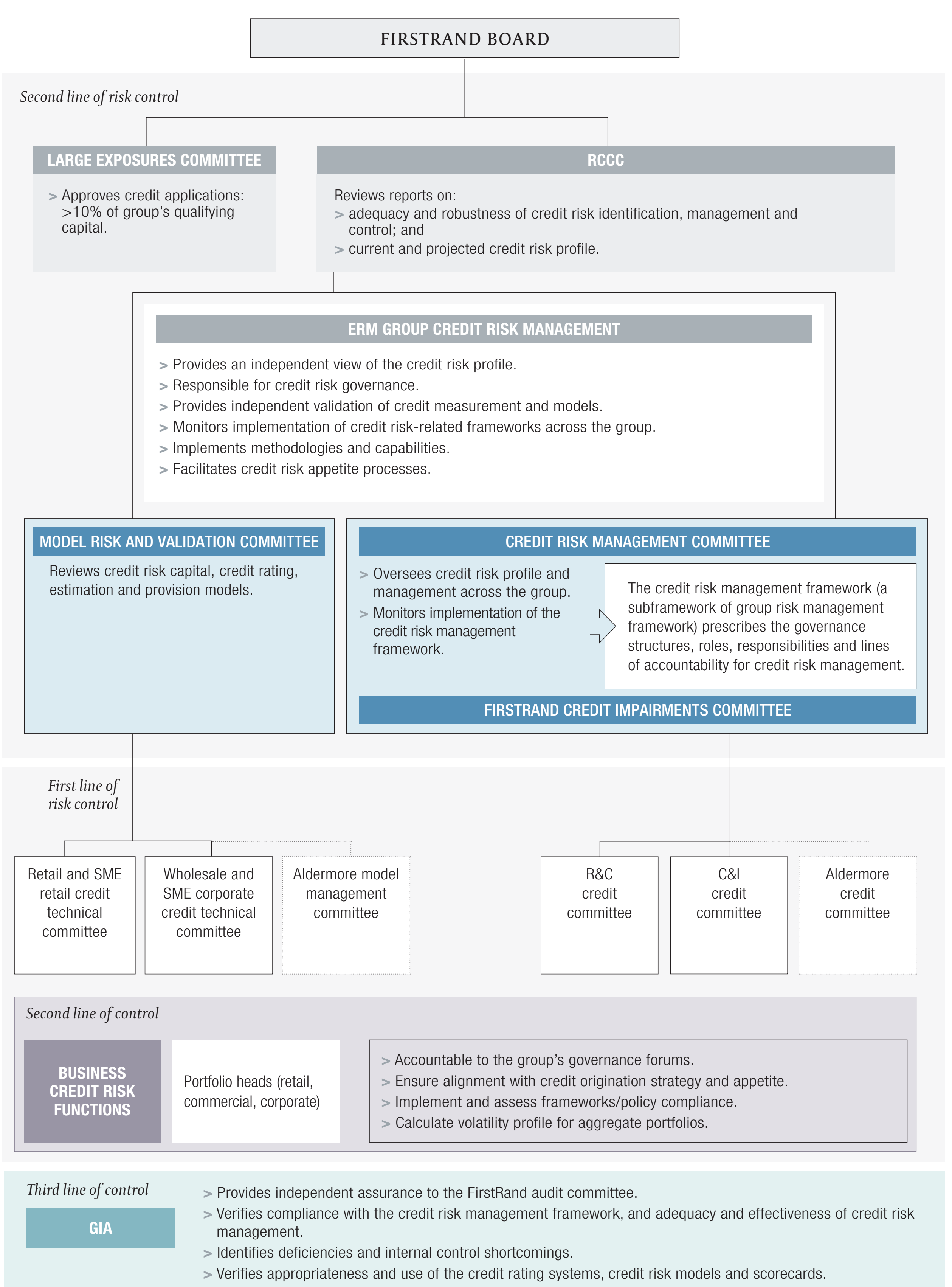
Each quarter ERM provides the RCCC with an aggregated credit risk profile report of each portfolio with inputs from credit portfolio reports and business CRO reports. It includes:

- an overview of key credit financial indicators;
- significant credit observations from the respective credit portfolios, such as risk appetite breaches; and
- significant regulatory and credit model-related issues.

Operating business/segment CROs report quarterly on the credit risk profile and include a high-level overview of advances split by portfolio to the relevant business risk and executive committees.

Organisational structure and governance

CREDIT RISK GOVERNANCE STRUCTURE



Credit assets

CREDIT ASSETS BY TYPE, SEGMENT AND PA APPROACH

	As at 30 June				
	2021				2020
		AIRB approach	Standardised approach		
R million	Total	FRBSA	Regulated banking entities in the rest of Africa	Other subsidiaries and foreign branches	Total
On-balance sheet exposures	**1 694 018**	**1 191 244**	**99 027**	**403 747**	1 663 842
Cash and short-term funds	**124 503**	**89 280**	**12 372**	**22 851**	125 771
– Money at call and short notice	**67 410**	**53 280**	**4 940**	**9 190**	79 930
– Balances with central banks	**57 093**	**36 000**	**7 432**	**13 661**	45 841
Gross advances*	**1 274 052**	**877 769**	**60 888**	**335 395**	1 311 095
Less: impairments**	**50 618**	**37 699**	**3 901**	**9 018**	49 380
Net advances	**1 223 434**	**840 070**	**56 987**	**326 377**	1 261 715
Debt investment securities (excluding non-recourse investments)#	**346 081**	**261 894**	**29 668**	**54 519**	276 356
Off-balance sheet exposures	**232 130**	**188 398**	**8 320**	**35 412**	178 810
Total contingencies†	**60 002**	**36 895**	**3 049**	**20 058**	42 120
– Guarantees	**49 943**	**27 479**	**2 407**	**20 057**	33 609
– Letters of credit	**10 059**	**9 416**	**642**	**1**	8 511
Irrevocable commitments‡	**166 397**	**145 773**	**5 271**	**15 353**	129 816
Credit derivatives	**5 731**	**5 730**	**–**	**1**	6 874
Total	**1 926 148**	**1 379 642**	**107 347**	**439 159**	1 842 652

* *The business split of gross advances is provided in the CR1: Credit quality of assets table.*

** *Impairments include expected credit loss on both on- and off-balance sheet exposures.*

Debt investment securities are net of allowances and impairments.

† *Includes acceptances.*

‡ *Irrevocable commitments have been restated following an investigation which identified an amount of R2 158 million that had been incorrectly omitted from the 2020 numbers.*

Credit quality of assets

The group has adopted IFRS 9, which uses an expected credit loss (ECL) model for the recognition of impairment losses. The ECL model considers the significant changes to asset credit risk and the expected loss that will arise in the event of default. In determining whether an impairment loss should be recognised, the group makes judgements as to whether there is observable data indicating a measurable decrease in the estimated future cash flows from a portfolio of loans. The objective of the measurement of an impairment loss is to produce a quantitative measure of the group's credit risk exposure.

The group adopted the PD/LGD approach for the calculation of ECL for advances. The ECL is based on an average of three macroeconomic scenarios incorporating a base scenario, upside scenario and downside scenario, weighted by the probability of occurrence. Regression modelling techniques are used to determine which borrower and transaction characteristics are predictive of certain behaviours, based on relationships observed in historical data related to the group of accounts to which the model will be applied. This results in the production of models that are used to predict impairment parameters (PD, LGD and EAD) based on the predictive characteristics identified through the regression process.

IMPAIRMENT OF FINANCIAL ASSETS

Adequacy of impairments is assessed through the ongoing review of the quality of credit exposures in line with IFRS 9 requirements. Individual advances are classified into one of the following categories and an impairment allowance recognised accordingly:

Credit risk has not increased significantly since initial recognition (stage 1)	Credit risk has increased significantly since initial recognition, but asset is not credit impaired (stage 2)	Asset has become credit impaired since initial recognition (stage 3)	Purchased or originated credit impaired
Twelve-month expected credit losses are recognised.	Lifetime expected credit losses (LECL) recognised	LECL recognised.	Movement in LECL since initial recognition.

IMPAIRMENT CLASSIFICATION

DESCRIPTION	
Determination of whether the credit risk of financial instruments has increased significantly since initial recognition	In order to determine whether an advance has experienced a significant increase in credit risk, the PD of the asset calculated at the origination date is compared to that calculated at the reporting date. The origination date is defined as the most recent date at which the group has repriced an advance/facility. A change in terms results in derecognition of the original advance/facility and recognition of a new advance/facility. Significant increase in credit risk test thresholds are reassessed and, if necessary, updated, on at least an annual basis. Any facility that is more than 30 days past due, or in the case of instalment-based products one instalment past due, is automatically considered to have experienced a significant increase in credit risk. In addition to the quantitative assessment based on PDs, qualitative considerations are applied when determining whether individual exposures have experienced a significant increase in credit risk. One such qualitative consideration is the appearance of wholesale and commercial SME facilities on a credit watch list. Any up-to-date facility that has undergone a distressed restructure (i.e. a modification of contractual cash flows to prevent a client from going into arrears) will be considered to have experienced a significant increase in credit risk and will be disclosed within stage 2 at a minimum. The credit risk on an exposure is no longer considered to be significantly higher than at origination if no qualitative indicators of a significant increase in credit risk are triggered, and if comparison of the reporting date PD to the origination date PD no longer indicates that a significant increase in credit risk has occurred. No minimum period for transition from stage 2 back to stage 1 is applied, with the exception of cured distressed restructured exposures that are required to remain in stage 2 for a minimum period of six months before re-entering stage 1, as per the requirements of *Directive 7 of 2015*.
Credit-impaired financial assets	Advances are considered credit impaired if they meet the definition of default. The group's definition of default applied for calculating provisions under IFRS 9 has been aligned to the definition applied for regulatory capital calculations across all portfolios, as well as those applied in operational management of credit and for internal risk management purposes. Exposures are considered to be in default when they are more than 90 days past due or, in the case of amortising products, have more than three unpaid instalments. In addition, an exposure is considered to have defaulted when there are qualitative indicators that the borrower is unlikely to pay their credit obligations in full without any recourse by the group to actions such as the realisation of security. Indicators of unlikeliness to pay are determined based on the requirements of Regulation 67 of the Banks Act. Examples include application for bankruptcy or obligor insolvency. Any distressed restructures of accounts which have experienced a significant increase in credit risk since initial recognition are defined as default events. Retail accounts are considered to no longer be in default if they meet the stringent cure definition, which has been determined at portfolio level based on analysis of re-defaulted rates. Curing from default within wholesale is determined judgmentally through a committee process.
Purchased or originated credit impaired	Financial assets that meet the above-mentioned definition of credit-impaired at initial recognition.

IMPAIRMENT ASSESSMENT

IMPAIRMENT CLASSIFICATION	DESCRIPTION
Significant increase in credit risk since initial recognition	Quantitative and qualitative factors are considered when determining whether there has been a significant increase in credit risk. **Quantitative test:** The PDs used to perform the test for a significant increase in credit risk are calculated by applying the PD model in force as at the reporting date. This model is retro-applied using data as at the origination date to determine origination date PDs. **Qualitative test:** Furthermore, a qualitative assessment is performed in order to assess if additional exposures should be migrated from stage 1 to stage 2. This assessment would consider, at a minimum, forward-looking information not taken into account in the quantitative assessment. Origination date PDs are measured at initial recognition of an instrument, unless there has been a subsequent risk-based repricing, or a change in terms has taken place which requires the derecognition of the initial advance and recognition of a new advance. Where the models used to determine PDs cannot discriminate good credit risks from bad credit risks effectively at initial recognition due to a lack of behavioural information, proxy origination dates of up to six months post initial recognition are applied. Where proxy origination dates are applied, early qualitative indicators of significant increase in credit risk, such as fraudulent account activity or partial arrears, are applied to trigger movement into stage 2. Reporting date PDs are calculated on a forward-looking basis, with PDs adjusted where appropriate to incorporate the impacts of multiple forward-looking macroeconomic scenarios.
Credit-impaired financial assets	Exposures are classified as stage 3 if there are qualitative indicators that the obligor is unlikely to pay his/her/its credit obligations in full without any recourse by the group to action, such as the realisation of security. Distressed restructures of accounts in stage 2 are also considered to be default events. For a retail account to cure from stage 3 to either stage 2 or stage 1, the account needs to meet a stringent cure definition. Cure definitions are determined on a portfolio level with reference to suitable analysis and are set such that the probability of a previously cured account re-defaulting is equivalent to the probability of default for an account that has not defaulted in the past. In most retail portfolios curing is set at 12 consecutive payments. For wholesale exposures, cures are assessed on a case-by-case basis, subsequent to an analysis by the relevant debt restructuring credit committee. A default event is a separate default event only if an account has met the portfolio-specific cure definition prior to the second or subsequent default. Default events that are not separate are treated as a single default event when developing LGD models and the associated term structures.

PD, EAD and LGD estimates that are derived from regulatory capital models are used in models to determine stage 1 estimates. The outputs from the regulatory capital models are used as inputs into term structure models used for stage 2 and 3 ECL calculations.

For credit risk measurement requirements FirstRand employs the AIRB approach for FRBSA and the standardised approach for the remaining group entities. The following table, *CR1: Credit quality of assets*, provides a breakdown of defaulted exposures, non-defaulted exposures and impairment allowances split between the standardised approach-specific and general accounting provisions and AIRB accounting provisions. Under the IFRS 9 ECL model these provisions represent the following:

REGULATORY CLASSIFICATION – **Standardised and AIRB approaches**	ECL IMPAIRMENT CLASSIFICATION (IFRS 9)
General provision	Stage 1 and 2 impairments – performing book
Specific provision	Stage 3 impairments – non-performing book

Use of an ECL model results in earlier recognition of impairments, which generally leads to an increase in provisions held on the performing book. The approach applied under IFRS 9 for the calculation of specific provisions does not result in significant changes in coverage held for defaulted accounts.

The following tables provide the credit quality of advances in the in-force portfolio.

CR1: CREDIT QUALITY OF ASSETS

		As at 30 June 2021						
		Gross carrying values of			Of which ECL accounting provisions for credit losses on standardised approach exposures#			
R million		Defaulted exposures*	Non-defaulted exposures**	Allowances/ impairments	Allocated in regulatory category of specific	Allocated in regulatory category of general	Of which ECL accounting provisions for credit losses on AIRB exposures	Net value
1.	**Gross advances**	60 705	1 213 347	50 618	5 021	5 299	40 298	1 223 434
	FNB	37 333	436 611	30 937	3 011	2 774	25 152	443 007
	– Retail	27 428	284 908	21 000	967	982	19 051	291 336
	– Commercial	6 378	104 743	6 310	82	127	6 101	104 811
	– Rest of Africa	3 527	46 960	3 627	1 962	1 665	–	46 860
	WesBank	10 725	116 363	6 476	6	48	6 422	120 612
	RMB investment banking	3 009	300 523	6 039	–	–	6 039	297 493
	RMB corporate banking	670	48 972	1 640	–	–	1 640	48 002
	Aldermore	7 738	260 729	3 791	1 766	2 025	–	264 676
	FCC (including Group Treasury)	1 230	50 149	1 735	238	452	1 045	49 644
2.	**Debt investment securities†**	–	346 339	258	–	–	258	346 081
3.	**Off-balance sheet exposures**	797	231 332	–	–	–	–	232 129
4.	**Total**	61 502	1 791 018	50 876	5 021	5 299	40 298	1 801 644

* *Defaulted exposure is stage 3/NPLs.*

** *Non-defaulted exposure is the sum of stage 1 and stage 2 gross advances.*

ECL = expected credit loss.

† *Excludes non-recourse investments.*

CR1: CREDIT QUALITY OF ASSETS

R million		As at 30 June 2020						
		Gross carrying values of			Of which ECL accounting provisions for credit losses on standardised approach exposures[#]		Of which ECL accounting provisions for credit losses on AIRB exposures	
		Defaulted exposures*	Non-defaulted exposures**	Allowances/ impairments	Allocated in regulatory category of specific	Allocated in regulatory category of general		Net value
1.	**Gross advances**	57 281	1 253 814	49 380	4 564	7 764	37 052	1 261 715
	FNB	36 195	440 809	30 305	3 492	3 060	23 753	446 699
	– Retail	24 968	288 252	19 953	792	843	18 318	293 267
	– Commercial	7 030	100 886	6 028	339	254	5 435	101 888
	– Rest of Africa	4 197	51 671	4 324	2 361	1 963	–	51 544
	WesBank	11 128	120 000	6 367	11	8	6 348	124 761
	RMB investment banking[‡]	2 282	285 106	5 378	–	–	5 378	282 010
	RMB corporate banking	853	71 586	1 436	–	–	1 436	71 003
	Aldermore	5 096	264 572	3 456	811	2 645	–	266 212
	FCC (including Group Treasury)[‡]	1 727	71 741	2 438	250	2 051	137	71 030
2.	**Debt investment securities[†]**	–	276 474	118	–	–	118	276 356
3.	**Off-balance sheet exposures[^]**	601	178 209	–	–	–	–	178 810
4.	**Total**	57 882	1 708 497	49 498	4 564	7 764	37 170	1 716 881

* *Defaulted exposure is stage 3/NPLs.*

** *Non-defaulted exposure is the sum of stage 1 and stage 2 gross advances.*

[#] *ECL = expected credit loss.*

[†] *Excludes non-recourse investments.*

[‡] *Reallocation of Ashburton from FCC to RMB investment banking.*

[^] *Irrevocable commitments have been restated following an investigation which identified an amount of R2 158 million that had been incorrectly omitted from the 2020 numbers.*

CR2: CHANGES IN STOCK OF DEFAULTED ADVANCES, DEBT SECURITIES AND OFF-BALANCE SHEET EXPOSURES

R million		Total
1.	**Defaulted credit exposures at 30 June 2020**	**57 882**
2.	Advances defaulted	**30 719**
3.	Return to non-defaulted status	**(5 719)**
4.	Amounts written off	**(16 197)**
5.	Payment received	**(5 085)**
6.	Other changes	**(98)**
7.	**Defaulted credit exposures at 30 June 2021**	**61 502**

AGE ANALYSIS OF CREDIT EXPOSURES

A past due analysis is performed for advances with specific expiry or instalment repayment dates. The analysis is not applicable to overdraft products or products where no specific due date is determined. The level of risk on these types of products is assessed and reported with reference to the counterparty ratings of the exposures.

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/NPLs, non-defaulted exposures are the sum of stage 1 and stage 2 gross advances, and allowances/impairments are total balance sheet provisions.

AGE ANALYSIS OF CREDIT EXPOSURES

	As at 30 June 2021			
	Gross carrying values of			
R million	**Defaulted exposures**	**Non-defaulted exposures**	**Allowances/ impairments**	**Net value**
FNB	**37 333**	**436 611**	**30 937**	**443 007**
– Retail	**27 428**	**284 908**	**21 000**	**291 336**
– Commercial*	**6 378**	**104 743**	**6 310**	**104 811**
– Rest of Africa	**3 527**	**46 960**	**3 627**	**46 860**
WesBank	**10 725**	**116 363**	**6 476**	**120 612**
RMB investment banking	**3 009**	**300 523**	**6 039**	**297 493**
RMB corporate banking	**670**	**48 972**	**1 640**	**48 002**
Aldermore	**7 738**	**260 729**	**3 791**	**264 676**
FCC (including Group Treasury)	**1 230**	**50 149**	**1 735**	**49 644**
Total	**60 705**	**1 213 347**	**50 618**	**1 223 434**
Percentage of total book (%)	**5.0**	**99.2**	**4.1**	**100.0**

* *Includes public sector.*

	As at 30 June 2020			
	Gross carrying values of			
R million	Defaulted exposures	Non-defaulted exposures	Allowances/ impairments	Net value
FNB	36 195	440 809	30 305	446 699
– Retail	24 968	288 252	19 953	293 267
– Commercial*	7 030	100 886	6 028	101 888
– Rest of Africa	4 197	51 671	4 324	51 544
WesBank	11 128	120 000	6 367	124 761
RMB investment banking**	2 282	285 106	5 378	282 010
RMB corporate banking	853	71 586	1 436	71 003
Aldermore	5 096	264 572	3 456	266 212
FCC (including Group Treasury)**	1 727	71 741	2 438	71 030
Total	57 281	1 253 814	49 380	1 261 715
Percentage of total book (%)	4.5	99.4	3.9	100.0

* *Includes public sector.*
** *Reallocation of Ashburton.*

INCOME STATEMENT IMPAIRMENT CHARGE

Impairments are recognised through the creation of an impairment reserve and an impairment charge in the income statement. Exposures considered uncollectable are written off against the reserve for loan impairments. Subsequent recoveries against these facilities decrease the credit impairment charge in the income statement in the year of recovery.

Refer to pages 75 and 145 of the group's *Analysis of financial results for the year ended 30 June 2021*, available on the group's website at www.firstrand.co.za/investors/financial-results/, for the NPL and impairment history graph and a description of normalised performance.

SECTOR AND GEOGRAPHICAL ANALYSIS OF DEFAULTED ADVANCES

The sector and geographical analysis of defaulted exposures are based on where the credit risk originates, i.e. the geography and sector of operation.

SECTOR DEFAULTED ADVANCES*

	As at 30 June 2021			
R million	**Defaulted advances before write-offs**	**Less: write-offs excluding interest in suspense**	**Defaulted advances net of write-offs**	**Specific impairments**
Agriculture	**2 522**	**540**	**1 982**	**823**
Banks	**–**	**–**	**–**	**–**
Financial institutions	**1 709**	**144**	**1 565**	**517**
Building and property development	**2 728**	**889**	**1 839**	**939**
Government, Land Bank and public authorities	**837**	**11**	**826**	**187**
Individuals	**55 775**	**12 166**	**43 609**	**19 073**
Manufacturing and commerce	**5 795**	**782**	**5 013**	**3 065**
Mining	**91**	**(20)**	**(111)**	**69**
Transport and communication	**1 664**	**268**	**1 396**	**527**
Other services	**5 781**	**1 417**	**4 364**	**2 276**
Total	**76 902**	**16 197**	**60 705**	**27 476**

	As at 30 June 2020			
R million	Defaulted advances before write-offs	Less: write-offs excluding interest in suspense	Defaulted advances net of write-offs	Specific impairments
Agriculture	3 181	272	2 909	969
Financial institutions	569	263	306	211
Building and property development	2 700	282	2 418	1 300
Government, Land Bank and public authorities	1 199	7	1 192	27
Individuals	50 519	10 516	40 003	17 452
Manufacturing and commerce	5 684	1 707	3 977	1 798
Mining	175	38	137	79
Transport and communication	1 536	320	1 216	421
Other services	6 081	958	5 123	2 416
Total	71 644	14 363	57 281	24 673

* *There were no defaulted advances in the banks sector during 2020 and 2021.*

GEOGRAPHIC DEFAULTED ADVANCES*

	As at 30 June 2021			
R million	**Defaulted advances before write-offs**	**Less: write-offs excluding interest in suspense**	**Defaulted advances net of write-offs**	**Specific impairments**
South Africa	**61 703**	**13 825**	**47 878**	**22 557**
Rest of Africa	**5 091**	**1 409**	**3 682**	**2 077**
UK	**9 973**	**1 004**	**8 969**	**2 711**
Other Europe	**5**	**2**	**3**	**3**
North America	**(45)**	**(46)**	**1**	**1**
South America	**1**	**–**	**1**	**–**
Australasia	**85**	**–**	**85**	**43**
Asia	**89**	**3**	**86**	**84**
Total	**76 902**	**16 197**	**60 705**	**27 476**

	As at 30 June 2020			
R million	Defaulted advances before write-offs	Less: write-offs excluding interest in suspense	Defaulted advances net of write-offs	Specific impairments
South Africa	57 893	11 738	46 155	20 099
Rest of Africa	5 783	1 427	4 356	2 787
UK	7 873	1 193	6 680	1 698
Other Europe	2	1	1	1
Australasia	–	–	–	–
Asia	93	4	89	88
Total	71 644	14 363	57 281	24 673

* *There were no exposures in North America and South America during 2020 and 2021.*

RESTRUCTURED EXPOSURES

A restructure is defined as any formal agreement between the customer and the group to amend contractual amounts due (or the timing thereof). This can be initiated by the customer, the group or a third party, e.g. debt management company. A restructure is defined as a distressed restructure where it is entered into:

- from a position of arrears;
- where an account was in arrears at any point during the past six months; or
- from an up-to-date position, in order to prevent the customer from going into arrears.

This section describes restructures and distressed restructures that are concluded as part of the normal course of business. Details regarding restructures entered into as part of Covid-19 relief efforts are provided in a separate subsection below.

Distressed restructuring is regarded as objective evidence of impairment. Classification of distressed restructures adheres to the relevant regulatory requirements. Restructured exposures shown below are applicable to South African retail operations. Retail restructured exposures include loans under debt review of R11 billion. Restructured exposures are classified as impaired once the group determines it is probable that it will be unable to collect all principal and interest due according to the new terms and conditions of the restructured agreement. Unimpaired restructures include those that are considered performing and not distressed.

RESTRUCTURED EXPOSURES SPLIT BETWEEN IMPAIRED AND NOT IMPAIRED*

	As at 30 June					
	2021			2020		
R million	**Impaired**	**Not impaired**	**Total**	Impaired**	Not impaired#	Total
Advances	**7 798**	**7 554**	**15 352**	6 370	11 183	17 553
Off-balance sheet exposures	**189**	**182**	**371**	3	394	397
Total	**7 987**	**7 736**	**15 723**	6 373	11 577	17 950

* *There were no restructured debt investment securities (excluding non-recourse investments and equities) in 2020 and 2021.*
** *June 2020 updated with WesBank previously ommited.*
# *June 2020 updated with the correction made by DirectAxis and Wesbank to stage 2.*

Covid-19 restructures

The group offered financial relief to retail and commercial customers through various mechanisms in response to Covid-19. These included the following:

- additional facilities or new loans being granted;
- restructure of existing exposures with no change in the present value of the estimated future cash flows; and
- restructure of existing exposures with a change in the present value of the estimated future cash flows.

Debt relief measures for wholesale clients was undertaken on a case-by-case basis within the boundaries of existing credit risk management processes.

Exposures on which relief was offered were assessed to determine whether the requirement for relief is expected to be temporary or permanent in nature. Where the requirement for relief was expected to be temporary in nature and the account to which the relief was applied was up to date as at 29 February 2020, the relief was considered to be a Covid-19 restructure as defined in the PA's *Directive 3 of 2020*, *Matters related to the treatment of restructured credit exposures due to the Coronavirus (Covid-19) pandemic*. Covid-19 restructures are not treated as distressed restructures. Where the requirement for relief was not expected to be temporary in nature or the account to which relief was applied was not up to date as at 29 February 2020, the exposure was treated as a distressed restructure.

Additional relief was provided to commercial customers through National Treasury's SME Loan Guaranteed Scheme. This scheme provided loans, substantially guaranteed by government, to eligible businesses to assist with operational expenses where such assistance is required due to the economic impacts of the Covid-19 lockdowns.

LOANS GRANTED THROUGH THE SME LOAN GUARANTEED SCHEME SPLIT BETWEEN DRAWN AND UNDRAWN EXPOSURE

	As at 30 June					
	2021			2020		
R million	**Drawn**	**Undrawn**	**Total**	Drawn	Undrawn	Total
Commercial advances	**1 599**	**35**	**1 634**	345	445	790
Total	**1 599**	**35**	**1 634**	345	445	790

MONITORING OF WEAK EXPOSURES

Credit exposures are actively monitored throughout the life of transactions. Portfolios are formally reviewed by portfolio committees, either monthly or quarterly, to assess levels of individual counterparty risk and portfolio risks, and to act on any early warning indicators. The performance and financial condition of borrowers are monitored based on information from internal sources, credit bureaux, borrowers and publicly available information. The frequency of monitoring and contact with the borrower is determined from the borrower's risk profile. Reports on the overall quality of the portfolio are monitored at business unit level, portfolio level and in aggregate for the group.

MANAGEMENT OF CONCENTRATION RISK

Credit concentration risk is the risk of loss to the group arising from an excessive concentration of exposure to a single counterparty, industry, market, product, financial instrument or type of security, country or region, or maturity. This concentration typically exists when a number of counterparties are engaged in similar activities and have similar characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions.

Concentration risk is managed based on the nature of the credit concentration within each portfolio. The group's credit portfolio is well diversified, achieved through setting maximum exposure guidelines to individual counterparties. The group constantly reviews its concentration levels and sets maximum exposure guidelines for these. Breaches of concentration limits are reported to the RCCC.

GEOGRAPHIC, INDUSTRY AND RESIDUAL MATURITY CONCENTRATION RISK

Geographically, most of the group's exposures are in South Africa. The following tables provide the geographical, industry and residual maturity split of gross advances after deduction of interest in suspense, and debt investment securities (excluding non-recourse investments and off-balance sheet exposures).

BREAKDOWN OF EXPOSURES ACROSS GEOGRAPHICAL AREAS

	As at 30 June			
	2021		2020	
R million	**Gross advances and debt investment securities***	**Significant off-balance sheet exposures**	Gross advances and debt investment securities*	Significant off-balance sheet exposures**
South Africa	**1 051 992**	**170 402**	1 033 674	140 164
Rest of Africa	**125 114**	**19 613**	151 025	14 284
United Kingdom	**355 221**	**32 479**	341 854	13 725
Other Europe	**34 610**	**6 711**	27 548	5 678
North America	**37 715**	**64**	18 392	1 284
South America	**2**	**15**	3	2
Australasia	**587**	**79**	685	–
Asia	**15 150**	**2 766**	14 391	3 673
Total	**1 620 391**	**232 129**	1 587 572	178 810

* *Debt investment securities exclude non-recourse investments.*

** *2020 numbers restated to include irrevocable commitments that were erroneously omitted.*

BREAKDOWN OF EXPOSURES ACROSS INDUSTRIES

	As at 30 June			
	2021		2020	
R million	**Gross advances and debt investment securities***	**Significant off-balance sheet exposures**	Gross advances and debt investment securities*	Significant off-balance sheet exposures**
Agriculture	**44 096**	**2 147**	45 632	1 640
Banks and financial services	**238 670**	**62 551**	234 761	32 181
Building and property development	**74 285**	**4 990**	77 229	3 973
Government, Land Bank and public authorities	**329 919**	**4 276**	234 404	6 014
Individuals	**632 723**	**64 335**	656 480	59 998
Manufacturing and commerce	**131 402**	**42 458**	142 012	39 806
Mining	**9 080**	**24 284**	25 391	12 528
Transport and communication	**29 897**	**12 066**	32 630	11 548
Other services	**130 319**	**15 022**	139 033	11 122
Total	**1 620 391**	**232 129**	1 587 572	178 810

* *Debt investment securities exclude non-recourse investments.*

** *Irrevocable commitments have been restated following an investigation which identified an amount of R2 158 million that had been incorrectly omitted from the 2020 numbers.*

BREAKDOWN OF EXPOSURES BY RESIDUAL MATURITY

	As at 30 June			
	2021		2020	
R million	**Gross advances and debt investment securities***	**Significant off-balance sheet exposures**	Gross advances and debt investment securities*	Significant off-balance sheet exposures**
Less than one year (including call)	**587 908**	**206 096**	515 035	170 936
Between one year and five years	**591 216**	**4 769**	595 670	5 888
Over five years	**384 602**	**1 542**	427 381	1 986
Non-contractual amounts	**56 665**	**19 722**	49 486	–
Total	**1 620 391**	**232 129**	1 587 572	178 810

* *Debt investment securities exclude non-recourse investments.*

** *Irrevocable commitments have been restated following an investigation which identified an amount of R2 158 million that had been incorrectly omitted from the 2020 numbers.*

Credit risk mitigation

The group's credit risk mitigation approach is described on page 23 .

Furthermore, it is the group's policy that all items of collateral are valued at the inception of a transaction and at various points throughout the life of a transaction, either through physical inspection or indexation methods, as appropriate. For corporate and commercial portfolios, the value of collateral is reviewed as part of the annual facility review. For mortgage portfolios, collateral valuations are updated on an ongoing basis through statistical indexation models. In the event of default, however, more detailed reviews and valuations of collateral are performed, which yield a more accurate financial impact.

Limited on- and off-balance sheet netting is used in the process of determining exposure to credit risk. RMB and FNB apply netting for corporate, SME corporate, banks, securities firms, public sector and sovereign exposures based on facility type, natural set-off, net exposure determination rules and ceding rules. The policies followed are documented and strictly governed by the applicable regulatory clauses.

CR3: CREDIT RISK MITIGATION TECHNIQUES

	As at 30 June 2021				
	Exposures*				
		Secured by collateral		**Secured by financial guarantees**	
R million	**Unsecured carrying value**	**Carrying value**	**Secured amount**	**Carrying value**	**Secured amount**
Advances	**197 264**	**1 026 170**	**1 026 170**	**9 416**	**9 416**
Debt securities	**81 943**	**264 138**	**264 138**	**–**	**–**
Total advances and debt securities	**279 207**	**1 290 308**	**1 290 308**	**9 416**	**9 416**
Of which defaulted	**4 199**	**29 029**	**29 029**	**–**	**–**

	As at 30 June 2020				
	Exposures*				
		Secured by collateral		Secured by financial guarantees	
R million	Unsecured carrying value	Carrying value	Secured amount	Carrying value	Secured amount
Advances	238 428	1 023 287	1 023 287	8 507	8 507
Debt securities	81 738	194 618	194 618	–	–
Total advances and debt securities	320 166	1 217 905	1 217 905	8 507	8 507
Of which defaulted	5 147	27 461	27 461	–	–

* *No exposures were secured by credit derivatives during the year.*

Credit risk under standardised approach

For regulatory capital purposes, the group predominantly uses the AIRB approach for FRBSA exposures, and the standardised approach for the group's other legal entities, the bank's foreign branches and Aldermore. Due to the relatively small size of the subsidiaries and the scarcity of relevant data, the group plans to continue using the standardised approach for the foreseeable future for the majority of these portfolios.

For portfolios using the standardised approach, only S&P Global Ratings (S&P) ratings are used. As external ratings are not available for all jurisdictions and for certain parts of the portfolio, the group uses its internally developed mapping between internal rating grades and S&P grades (refer to the *Mapping of FirstRand grades to rating agency scales* on page 70).

For cases where the bank invests in particular debt issuance, the risk weight of claims is based on these assessments. If the investment is not in a specific assessed issuance, then the following factors apply when determining the applicable assessments in accordance with Basel prescriptions:

> borrower's issuer assessment;

> borrower's specific assessment on issued debt;

> ranking of the unassessed claim; and

> the entire amount of credit risk exposure the bank has.

The following table provides the credit risk exposures, credit risk mitigation effects and RWA for standardised approach exposures per asset class. RWA density is the ratio of RWA to exposures post CCF and CRM. There are no exposures to multilateral development banks, secured by commercial real estate, equity, past due advances, higher-risk categories and other asset categories. Rows 3 and 9 – 13 were therefore excluded from this table.

CR4: STANDARDISED APPROACH – CREDIT RISK EXPOSURE AND CREDIT RISK MITIGATION EFFECTS

		As at 30 June 2021					
		Exposures before CCF and CRM		Exposure post CCF and CRM		RWA and RWA density	
R million		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density %
	Asset classes						
1.	Sovereigns and their central banks	**99 005**	**67**	**97 984**	**23**	**45 717**	**46.65**
2.	Non-central government public sector entities	**3 346**	**1 035**	**2 417**	**203**	**1 246**	**47.56**
4.	Banks	**23 171**	**541**	**22 723**	**279**	**5 888**	**25.60**
5.	Securities firms	**939**	**37**	**939**	**19**	**479**	**50.00**
6.	Corporates	**61 055**	**29 963**	**62 710**	**18 805**	**68 948**	**84.58**
7.	Regulatory retail portfolios	**114 017**	**15 699**	**113 870**	**5 076**	**85 369**	**71.77**
8.	Secured by residential property	**168 115**	**5 443**	**168 108**	**4 710**	**61 187**	**35.41**
9.	Secured by commercial real estate	**7 092**	**525**	**7 092**	**523**	**7 700**	**101.12**
14.	**Total**	**476 740**	**53 310**	**475 843**	**29 638**	**276 534**	**54.71**

		As at 30 June 2020					
		Exposures before CCF and CRM		Exposure post CCF and CRM		RWA and RWA density	
R million		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density %
	Asset classes						
1.	Sovereigns and their central banks	100 500	59	104 794	4	37 803	36.07
2.	Non-central government public sector entities	4 204	975	2 465	80	1 149	45.13
4.	Banks	26 759	5	27 380	5	6 449	23.55
5.	Securities firms	2	45	2	–	–	–
6.	Corporates	168 825	26 148	132 578	3 581	136 159	100.00
7.	Regulatory retail portfolios	80 376	18 323	101 830	1 695	66 769	64.50
8.	Secured by residential property	172 084	3 353	172 083	3 353	57 222	32.62
9.	Secured by commercial real estate	7 269	1 129	7 269	1 129	8 398	100.00
14.	**Total**	560 019	50 037	548 397	9 847	313 949	56.24

The following tables provide a breakdown of exposures rated through the standardised approach by asset class to show the effect of credit risk mitigation. Further breakdown by risk weight per asset class is shown where the risk weights used are those prescribed in the Regulations and will differ primarily by asset class as well as credit rating. There are no exposures to multilateral development banks, secured by commercial real estate, equity, past due advances, higher-risk categories and other asset categories. Rows 3 and 9 – 13 were therefore excluded from this table.

CR5: STANDARDISED APPROACH – EXPOSURES BY ASSET CLASSES AND RISK WEIGHTS

		As at 30 June 2021									
		Risk weight									**Total credit exposures amount (post-CCF and post-CRM)**
R million		**0%**	**10%**	**20%**	**35%**	**50%**	**75%**	**100%**	**150%**	**Others**	
	Asset classes										
1.	Sovereigns and their central banks	**51 228**	**–**	**–**	**–**	**11 321**	**–**	**17 818**	**17 640**	**–**	**98 007**
2.	Non-central government public sector entities	**–**	**–**	**–**	**–**	**2 621**	**–**	**–**	**–**	**–**	**2 621**
4.	Banks	**2 289**	**1 273**	**16 667**	**–**	**1 112**	**–**	**940**	**720**	**–**	**23 001**
5.	Securities firms	**–**	**–**	**–**	**–**	**958**	**–**	**–**	**–**	**–**	**958**
6.	Corporates	**–**	**–**	**4 187**	**8 003**	**2 245**	**12 894**	**51 224**	**2 958**	**5**	**81 516**
7.	Regulatory retail portfolios	**1 534**	**–**	**–**	**15 588**	**137**	**97 983**	**3 343**	**361**	**–**	**118 946**
8.	Secured by residential property	**–**	**–**	**–**	**172 033**	**–**	**754**	**30**	**–**	**–**	**172 817**
9.	Secured by commercial real estate	**–**	**–**	**–**	**–**	**–**	**–**	**7 448**	**168**	**–**	**7 616**
14.	**Total**	**55 051**	**1 273**	**20 854**	**195 624**	**18 394**	**111 631**	**80 803**	**21 847**	**5**	**505 482**

		As at 30 June 2020									
		Risk weight									Total credit exposures amount (post-CCF and post-CRM)
R million		0%	10%	20%	35%	50%	75%	100%	150%	Others	
	Asset classes										
1.	Sovereigns and their central banks	56 354	–	203	–	15 579	–	18 202	14 457	–	104 795
2.	Non-central government public sector entities	–	–	3	–	2 542	–	–	–	–	2 545
4.	Banks	8 340	–	16 242	–	1 235	–	1 031	537	–	27 385
5.	Securities firms	–	–	–	–	2	–	–	–	–	2
6.	Corporates	–	–	4 060	–	3 207	3 977	120 789	4 126	–	136 159
7.	Regulatory retail portfolios	250	–	–	–	157	101 369	1 514	234	–	103 524
8.	Secured by residential property	50	–	–	173 784	–	1 602	–	–	–	175 436
9.	Secured by commercial real estate	–	–	–	–	–	–	8 398	–	–	8 398
14.	**Total**	64 994	–	20 508	173 784	22 722	106 948	149 934	19 354	–	558 244

Credit risk under the AIRB approach

The use of quantitative models is crucial to the successful management of credit risk, with models being applied across the credit value chain to drive business decisions and to measure and report on credit risk.

Technical requirements for the development of credit risk models are captured in model-type specific model development frameworks, while model governance, validation and implementation requirements are articulated in the group's model risk management framework for credit risk. Where applicable, independent validation of credit risk models is performed according to requirements articulated in model-type specific independent validation frameworks.

Credit risk models are widely employed in the assessment of capital requirements, origination, pricing, impairment calculations and stress testing of the credit portfolio. All of these models are built on a number of client and facility rating models, in line with the AIRB approach requirements and the group's model building frameworks. Credit risk approaches employed across the group are shown below.

Basel approach	FRBSA	Remaining group entities
AIRB	✓	
Standardised approach	✓	✓

The following table provides the EAD composition per major portfolio within the group (including Aldermore), for each of the credit approaches.

EAD % per portfolio	AIRB	Standardised approach
Retail	62	38
Commercial	61	39
Corporate	77	23

Even though the remaining subsidiaries do not have regulatory approval to use the AIRB approach, the same or similar models are applied for the internal assessment of credit risk on the standardised approach. The models are used for the internal assessment of the three primary credit risk components:

> probability of default;

> exposure at default; and

> loss given default.

Management of the credit portfolio is reliant on these three credit risk measures. PD, EAD and LGD are inputs into the portfolio and group-level credit risk assessment where the measures are combined with estimates of correlations between individual counterparties, industries and portfolios to reflect diversification benefits across the portfolio.

PROBABILITY OF DEFAULT	
Definition	> The probability of a counterparty defaulting on any of its obligations over the next 12 months. > A measure of the counterparty's ability and willingness to repay facilities granted.
Dimensions	> Time-driven: counterparty is in arrears for more than 90 days or three instalments. > Event-driven: there is reason to believe that the exposure will not be recovered in full and has been classified as such.
Application	> All credit portfolios. > Recognition of NPLs for accounting.
PD measures	> Through-the-cycle PD measures reflect long-term, average default expectations over the course of the economic cycle, and are inputs in economic and regulatory capital calculations. > Point-in-time PD measures that reflect default expectations based on the incorporation of forward-looking information and thus tend to be more cyclical than through-the-cycle PD estimates. These PDs are used in credit portfolio management, setting risk appetite and portfolio monitoring.
Measure application	> Probability of default is used in the management of exposure to credit risk.

The group employs a granular, 100-point master rating scale which has been mapped to the continuum of default probabilities, as illustrated in the following table. These mappings are reviewed and updated on a regular basis. The group currently only uses mapping to S&P rating scales.

MAPPING OF FIRSTRAND GRADES TO RATING AGENCY SCALES

FIRSTRAND RATING	MIDPOINT PD	INTERNATIONAL SCALE MAPPING	
1 – 14	0.06%	AAA, AA+, AA, AA-, A+, A, A-	> 1 represents the lowest PD and 100 the highest in the FirstRand rating scale. > External ratings have also been mapped to the master rating scale for reporting purposes.
15 – 25	0.29%	BBB+, BBB(upper), BBB, BBB-(upper), BBB-, BB+(upper)	
26 – 32	0.77%	BB+, BB(upper), BB, BB-(upper)	
33 – 39	1.44%	BB-, B+(upper)	
40 – 53	2.52%	B+	
54 – 83	6.18%	B(upper), B, B-(upper)	
84 – 90	13.68%	B-	
91 – 99	59.11%	CCC+, CCC	
100	100%	D (defaulted)	

EXPOSURE AT DEFAULT	
Definition	The expected exposure to a counterparty through a facility should the counterparty default over the next 12 months. It reflects commitments made and facilities granted that have not been paid out and may be drawn over the period under consideration (i.e. off-balance sheet exposures). It is also a measure of potential future exposure on derivative positions.
Application	A number of EAD models, which are tailored to the respective portfolios and products employed, are in use across the group. These have been developed internally and are calibrated to historical default experience.

LOSS GIVEN DEFAULT	
Definition	The economic loss on a particular facility upon default of the counterparty is expressed as a percentage of exposure outstanding at the time of default.
Dependent on	> Type, quality and level of subordination. > Value of collateral held compared to the size of overall exposure. > Effectiveness of the recovery process and timing of cash flows received during the work-out or restructuring process.
Application	> All credit portfolios. > Recognition of NPLs for accounting.
Distinctions	> Long-run expected LGDs (long-run LGDs). > LGDs reflective of downturn conditions: – more conservative assessment of risk, incorporating a degree of interdependence between PD and LGD that can be found in a number of portfolios, i.e. instances where deteriorating collateral values are also indicative of higher default risk; and – used in the calculation of regulatory capital estimates.

Expected loss

Expected loss (EL) is the product of the primary risk measures PD, EAD and LGD, and is a forward-looking measure of portfolio or transaction risk. It is used for a variety of purposes along with other risk measures. EL is not directly comparable to impairment levels, as EL calculations are based on regulatory parameters, through-the-cycle PD and downturn LGD, whilst impairment calculations are driven by IFRS requirements.

Credit risk model development and approval

Requirements for the model development and validation process, including governance and implementation requirements, and associated roles and responsibilities, are articulated in the group's model risk management framework for credit risk and apply to all credit risk models used across the group.

Roles and responsibilities related to the model risk management process, as well as model governance and validation requirements, are defined in this framework with reference to the stages of the credit risk model life cycle. Governance and validation requirements for new model developments also apply to significant model changes, which are defined as changes to the structure of a model or model rating factors.

The following roles are defined to ensure that model risk is adequately managed across the credit value chain and throughout the credit risk model life cycle.

> **Model owner** – Responsible for the overall performance of the model, including ensuring that the model is implemented correctly and used appropriately. The model owner should be the head of credit for the portfolio to which the model will be applied, unless model ownership has been delegated to an appropriate central function.

> **Model developer** – Responsible for the development of the model, using appropriate methodologies that align with the intended model use and for producing appropriate model documentation. The model developer should be a senior analyst in the business unit in which the model will be used, unless model development has been outsourced to an appropriate central function.

> **Model validator** – Sets the framework against which the model will be validated and performs the independent validation of the model in accordance with the relevant approved model validation framework. The model validator should be in ERM, unless independent validation has been delegated to another function or area that is independent from the model owner and model developer.

> **Model approver** – Responsible for the final approval of the model for its intended use. Model approval is the responsibility of the RCCC or its designated subcommittee, and the final model approver is dependent on model type and model risk classification.

> **GIA** – Responsible for monitoring adherence to the requirements of the model risk management framework for credit risk and other related policies and frameworks.

The model governance and validation process for each stage of the credit risk model life cycle is described in the following table. This is applicable to new model developments and significant model changes.

MODEL GOVERNANCE AND VALIDATION IN THE CREDIT MODEL LIFE CYCLE

LIFE CYCLE STAGE	DESCRIPTION	MODEL GOVERNANCE AND VALIDATION
Independent validation	Independent review of model, underlying methodology and results.	In line with requirements of regulatory capital model validation frameworks.
Model approval	Final approval indicating model may be implemented and used as intended.	Approval by: > Model risk and validation committee (MRVC). > RCCC (for material models). > PA (if required by PA communication policy).
Model implementation	Production environment.	Model owner sign-off.
Post-implementation review	Confirmation of successful model implementation.	> Model owner sign-off. > Noted at MRVC. > Material models noted at RCCC.
Ongoing monitoring and validation	Confirmation of continued model relevance and accuracy.	> Model owner and technical committee sign off results. > Annual independent validation noted at: – MRVC. – RCCC (material models). – PA (if required by PA communication policy).

AIRB MODELS

AIRB models are developed in alignment with regulatory requirements for measurement of credit risk regulatory capital. Retail portfolio models are developed using methodologies described in the retail AIRB model development and validation framework. Corporate models are developed using statistical, expert judgement and hybrid and simulation approaches, with the approach selected according to the characteristics of the exposures modelled.

Parameter floors are applied to the model outputs as follows, in accordance with regulatory requirements:

- PDs – 0.3%;
- residential mortgage LGDs – 10%; and
- EADs – 100% of drawn exposure.

The time lapse between the default event and closure of the exposure depends on the type of collateral (if any) assigned to the underlying exposure. In secured portfolios, write-off takes place once collateral perfection has occurred, or once it has been subjectively established that asset recovery will not be possible. For unsecured portfolios, write-off occurs once an exposure has been in default for a specified period of time or has missed a specified number of payments, as articulated in product-level write-off policies.

The table below gives an overview of the key AIRB models used for regulatory capital calculation within each portfolio, including a breakdown of the individual models applied and a description of the modelling methodologies.

PORTFOLIO	NUMBER OF MODELS	MODEL TYPE	MODEL DESCRIPTION
Large corporate portfolios (RMB and WesBank) Private sector counterparties, including corporates and securities firms, and public sector counterparties. Products include loan facilities, structured finance facilities, contingent products and derivative instruments.	13	PD	> Internally developed statistical rating models using internal and external data covering full economic cycles are used and results supplemented with qualitative assessments based on international rating agency methodologies. > All ratings (and associated PDs) are reviewed by the wholesale credit committee and, if necessary, final adjustments made to ratings to reflect information not captured by the models.
		LGD	> LGD estimates are based on modelling a combination of internal and suitably adjusted international data with the wholesale credit committee responsible for reviewing and approving LGDs. The LGD models consider the type of collateral underlying the exposure.
		EAD	> EAD estimates are based on suitably adjusted international data. The credit conversion factor approach is typically used to inform the EAD estimation process. The same committee process responsible for reviewing and approving PDs is applied to the review and approval of EADs.
Low default portfolios: sovereign and bank exposures South African and non-South African banks, local and foreign currency sovereign and sub sovereign exposures.	10	PD	> PDs are based on internally developed statistical and expert judgement models, which are used in conjunction with external rating agency ratings and structured peer group analysis to determine final ratings. PD models are calibrated using external default data and credit spread market data. > All ratings (and associated PDs) are reviewed by the wholesale credit committee and, if necessary, final adjustments made to ratings to reflect information not captured by the models.
		LGD	> LGD estimates are based on modelling a combination of internal and suitably adjusted international data which is reviewed by the same committee process responsible for reviewing and approving PDs. The LGD models consider the type of collateral underlying the exposure.
		EAD	> Estimation is based on regulatory guidelines with credit conversion factors used as appropriate. External data and expert judgement are used due to the low default nature of the exposures.

PORTFOLIO	NUMBER OF MODELS	MODEL TYPE	MODEL DESCRIPTION
Specialised lending portfolios (RMB, FNB commercial) Exposures to private sector counterparties for the financing of project finance, high-volatility commercial real estate, and income-producing real estate.	9	PD	> The rating systems are based on hybrid models using a combination of statistical cash flow simulation models and qualitative scorecards calibrated to a combination of internal data and external benchmarks. > All ratings (and associated PDs) are reviewed by the wholesale credit committee and, if necessary, final adjustments made to ratings to reflect information not captured by the models.
		LGD	> The LGD estimation process is similar to that followed for PD with simulation and expert judgement used as appropriate.
		EAD	> EAD estimates are based on internal as well as suitably adjusted external data. The credit conversion factor approach is typically used to inform the EAD estimation process.
Commercial portfolios (FNB commercial, WesBank) Exposures to SME corporate and retail clients. Products include loan facilities, contingent products and term lending products.	12	PD	> **SME commercial** – counterparties are scored using financial statement information in addition to other internal risk drivers, the output of which is calibrated to internal historical default data. > **SME retail** – the SME retail portfolio is segmented into homogeneous pools and subpools through an automated scoring process using statistical models that incorporate product type, customer behaviour and delinquency status. PDs are estimated for each subpool based on internal product level history associated with the respective homogeneous pools and subpools.
		LGD	> **SME commercial** – recovery rates are largely determined by collateral type and these have been set with reference to internal historical loss data, external data and Basel guidelines. > **SME retail** – LGD estimates are applied on a portfolio level, estimated from internal historical default and recovery experience.
		EAD	> **SME commercial** – portfolio-level credit conversion factors are estimated on the basis of the group's internal historical experience and benchmarked against international studies. > **SME retail** – EAD estimates are applied on a portfolio level, estimated from internal historical default and recovery experience.
Residential mortgages (FNB retail) Exposures to individuals for financing of residential properties.	12	PD	> Portfolios/products are segmented into homogeneous pools and subpools through an automated scoring process using statistical models that incorporate product type, loan characteristics, customer behaviour, application data and delinquency status. > PDs are estimated for each subpool based on internal product level history associated with the respective homogeneous pools and subpools.
		LGD	> LGD estimates are based on subsegmentation with reference to collateral or product type, time in default and post-default payment behaviour. Final estimates are based on associated analyses and modelling of historical internal loss data.
		EAD	> EAD estimates are based on subsegmentation with reference to product-level analyses and modelling of historical internal exposure data.

PORTFOLIO	NUMBER OF MODELS	MODEL TYPE	MODEL DESCRIPTION
Qualifying revolving retail exposures (FNB retail) Exposures to individuals providing a revolving limit through credit card or overdraft facility.	9	PD	> Portfolios/products are segmented into homogeneous pools and subpools through an automated scoring process using statistical models that incorporate product type, loan characteristics, customer behaviour, application data and delinquency status. > PDs are estimated for each subpool based on internal product level history associated with the respective homogeneous pools and subpools.
		LGD	> LGD estimates are based on subsegmentation with reference to product type. Final estimates are based on associated analyses and modelling of historical internal loss data.
		EAD	> EAD measurement plays a significant role in the assessment of risk due to the typically high level of undrawn facilities characteristic of these product types. EAD estimates are based on actual historic EAD, segmented appropriately, e.g. straight vs budget in the case of credit cards.
Other exposures (Personal loans and VAF)	15	PD	> Portfolios/products are segmented into homogeneous pools and subpools through an automated scoring process using statistical models that incorporate product type, loan characteristics, customer behaviour, application data and delinquency status. > PDs are estimated for each subpool based on internal product-level history associated with the respective homogeneous pools and subpools.
		LGD	> LGD estimates are based on subsegmentation with reference to collateral (in the case of VAF) or product type and time in default. Final estimates are based on associated analyses and modelling of historical internal loss data.
		EAD	> EAD estimates are based on subsegmentation with reference to product-level analyses and modelling of historical internal exposure data.

USE OF CREDIT RISK MEASURES

Credit risk management encompasses the following:

- credit approval;
- pricing;
- limit-setting/risk appetite;
- reporting;
- provisioning;
- capital calculations and allocation;
- profitability analysis;
- stress testing;
- risk management and credit monitoring; and
- performance measurement.

The following table describes the use of credit risk actions and measures across a number of key areas and business processes related to the management of the credit portfolio.

USE OF CREDIT RISK MANAGEMENT ACTIONS AND MEASURES IN THE CREDIT LIFE CYCLE

	CORPORATE	RETAIL
Determination of portfolio and client acquisition strategy	- Assessment of overall portfolio credit risk determined by PD, EAD and LGD. - Acquisition and overall strategy set in terms of appropriate limits and group risk appetite.	- Same measures as for corporate. - Credit models determine loss thresholds used in setting of credit risk appetite.
Determination of individual and portfolio limits	- Industry and geographical concentrations. - Credit ratings. - Risk-related limits on the composition of portfolio. - Group credit risk appetite.	- Same measures as for corporate. - Modelled versus actual experience is evaluated in setting of risk appetite.
Profitability analysis and pricing decisions	- PD, EAD and LGD used to determine pricing. - Economic profit used for profitability.	- Same measures as for corporate.
Credit approval	- Consideration of application's ratings. - Credit risk appetite limits. - Projected risk-adjusted return on economic capital (PD, EAD and LGD are key inputs in these measures).	- Automated based on application scorecards (scorecards are reflective of PD, EAD and LGD). - Assessment of client's affordability.
Credit monitoring and risk management	- Risk assessment based on PD, EAD and LGD. - Counterparty FR grades updated based on risk assessment. - Additional capital for large transactions that will increase concentration risk.	- Same measures as for corporate. - Monthly analysis of portfolio and risk movements used in portfolio management and credit strategy decisions.
Impairments	- Macroeconomic models, PD, EAD and LGD used for stage 1, stage 2 and stage 3 ECL. - Judgemental assessment to determine adequacy of impairments.	- Macroeconomic models, PD, EAD and LGD used for stage 1, stage 2 and stage 3 ECL.
Regulatory and economic capital calculation	- Primary credit risk measures, PD, EAD and LGD are the most important inputs.	- Primary credit risk measures, PD, EAD and LGD are the most important inputs.
Reporting to senior management and board	- Portfolio reports discussed at business and business unit risk committee meetings. - Quarterly portfolio reports submitted to credit risk management and RCCC.	- Portfolio reports discussed at business and business unit risk committee meetings. - Quarterly portfolio reports submitted to credit risk management and RCCC.

CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE

The following tables provide the main parameters used for the calculation of capital requirements for the exposures in the AIRB models split by asset class and shown within fixed regulatory PD ranges. These exposures are for FRBSA, where AIRB models are applied. The information in the different columns is explained as follows:

> regulatory supplied CCF are used;

> CRM measures applied are described on page 23;

> number of obligors corresponds to the number of counterparties in the PD band;

> average PD and LGD are weighted by EAD;

> average maturity is the obligor maturity in years weighted by EAD;

> RWA density is the total RWA to EAD post CRM; and

> provisions are only included on a total basis.

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE

	Total FRBSA					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	74 693	19 612	38.69	81 760	0.06	118 472
0.15 to <0.25	43 890	47 700	54.43	66 937	0.20	100 297
0.25 to <0.50	298 108	71 634	53.37	321 355	0.44	346 129
0.50 to <0.75	102 173	39 414	52.68	118 422	0.64	274 371
0.75 to <2.50	274 742	81 471	66.63	326 920	1.52	1 459 282
2.50 to <10	140 068	24 071	61.48	154 660	4.50	3 156 718
10 to <100	36 228	4 422	62.00	38 976	26.76	2 037 866
100 (default)	43 695	225	–	44 183	100.00	698 696
Total	1 013 597	288 549	56.97	1 153 213	5.98	8 191 831

	Total FRBSA					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity years	RWA* R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	22.63	0.40	4 208	5.15	12	
0.15 to <0.25	30.23	1.34	15 225	22.75	39	
0.25 to <0.50	16.25	2.30	65 348	20.34	217	
0.50 to <0.75	23.99	2.11	36 570	30.88	182	
0.75 to <2.50	26.29	2.19	140 485	42.97	1 344	
2.50 to <10	40.45	2.12	118 169	76.42	2 966	
10 to <100	40.85	2.00	48 648	124.64	4 205	
100 (default)	47.27	3.04	22 312	50.50	20 196	
Total	26.42	2.05	450 965	39.10	29 161	35 395

* *The difference between total RWA presented in the OV1: Overview of RWA and CR6 templates is due to slotting.*

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Total FRBSA					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	48 826	19 487	38.79	53 615	0.08	137 250
0.15 to <0.25	45 242	34 277	51.17	60 998	0.19	123 062
0.25 to <0.50	276 868	74 457	55.06	298 900	0.43	370 109
0.50 to <0.75	94 644	30 626	51.56	106 810	0.64	269 722
0.75 to <2.50	273 841	85 167	59.62	324 194	1.54	1 822 107
2.50 to <10	142 300	29 075	56.04	157 718	4.56	2 806 106
10 to <100	46 921	5 263	53.42	49 660	27.87	1 993 751
100 (default)	46 416	37	–	46 334	100.00	956 992
Total	975 058	278 389	54.52	1 098 229	6.78	8 479 099

	Total FRBSA					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity years	RWA* R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	28.37	0.64	4 105	7.66	12	
0.15 to <0.25	30.90	1.40	12 768	20.93	36	
0.25 to <0.50	17.87	1.95	64 151	21.46	212	
0.50 to <0.75	23.49	2.19	30 941	28.97	154	
0.75 to <2.50	27.40	2.14	145 308	44.82	1 403	
2.50 to <10	40.39	2.05	120 608	76.47	3 030	
10 to <100	39.67	2.04	56 890	114.56	5 565	
100 (default)	46.12	2.60	24 475	52.82	20 695	
Total	27.88	1.98	459 246	41.82	31 107	34 477

* *The difference between total RWA presented in the OV1: Overview of RWA and CR6 templates is due to slotting.*

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Corporate*					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	**2 220**	**2 360**	**46.94**	**3 330**	**0.09**	**3**
0.15 to <0.25	**22 252**	**30 283**	**49.35**	**34 231**	**0.19**	**48**
0.25 to <0.50	**39 663**	**36 288**	**45.46**	**56 357**	**0.40**	**86**
0.50 to <0.75	**21 516**	**12 318**	**50.32**	**24 172**	**0.68**	**87**
0.75 to <2.50	**35 140**	**20 488**	**55.19**	**45 006**	**1.53**	**213**
2.50 to <10	**15 144**	**5 463**	**49.52**	**17 608**	**4.63**	**124**
10 to <100	**2 131**	**1 231**	**54.17**	**2 697**	**11.46**	**106**
100 (default)	**881**	**219**	**–**	**939**	**100.00**	**9**
Total	**138 947**	**108 650**	**49.18**	**184 340**	**1.74**	**676**

	Corporate					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	**30.00**	**1.19**	**424**	**12.73**	**1**	
0.15 to <0.25	**32.36**	**1.65**	**9 500**	**27.75**	**22**	
0.25 to <0.50	**29.42**	**1.86**	**23 148**	**41.07**	**66**	
0.50 to <0.75	**27.83**	**1.54**	**10 482**	**43.36**	**45**	
0.75 to <2.50	**29.08**	**1.96**	**30 279**	**67.28**	**205**	
2.50 to <10	**36.46**	**1.58**	**20 031**	**113.76**	**292**	
10 to <100	**39.45**	**1.20**	**4 600**	**170.56**	**123**	
100 (default)	**29.76**	**1.82**	**–**	**–**	**279**	
Total	**30.51**	**1.76**	**98 464**	**53.41**	**1 033**	**2 662**

* *Corporate asset class includes wholesale corporate only, other corporates reported under SME corporate asset class.*

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Corporate					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	5 465	433	45.01	5 303	0.09	1
0.15 to <0.25	28 602	18 776	50.93	36 258	0.20	46
0.25 to <0.50	45 125	34 082	47.84	59 264	0.39	93
0.50 to <0.75	22 387	7 568	50.89	23 361	0.68	76
0.75 to <2.50	43 339	24 862	54.91	56 033	1.60	211
2.50 to <10	14 833	6 233	50.77	17 287	4.78	121
10 to <100	2 209	1 218	51.53	2 877	13.26	93
100 (default)	2 137	37	–	2 135	100.00	10
Total	164 097	93 209	50.81	202 518	2.33	651

	Corporate					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	30.00	1.37	722	13.61	1	
0.15 to <0.25	31.04	1.62	9 153	25.24	22	
0.25 to <0.50	31.05	1.83	25 200	42.52	72	
0.50 to <0.75	26.05	1.78	9 707	41.55	41	
0.75 to <2.50	31.34	2.14	42 185	75.29	291	
2.50 to <10	37.68	1.66	20 075	116.13	297	
10 to <100	36.19	1.23	4 403	153.04	130	
100 (default)	43.35	1.69	–	–	958	
Total	31.29	1.83	111 445	55.03	1 812	3 207

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Specialised lending					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	–	–	–	–	–	–
0.15 to <0.25	989	86	–	989	0.18	8
0.25 to <0.50	41 065	6 046	64.16	41 220	0.41	53
0.50 to <0.75	14 192	2 252	58.72	15 185	0.65	56
0.75 to <2.50	33 076	3 742	57.92	35 213	1.50	1 135
2.50 to <10	6 090	123	61.52	6 249	3.97	325
10 to <100	782	317	57.92	968	17.16	32
100 (default)	1 235	–	–	1 235	100.00	33
Total	97 429	12 566	60.71	101 059	2.42	1 642

	Specialised lending					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	–	–	–	–	–	
0.15 to <0.25	20.26	3.21	233	23.56	–	
0.25 to <0.50	18.84	2.75	12 444	30.19	32	
0.50 to <0.75	23.93	2.90	7 416	48.84	24	
0.75 to <2.50	25.45	2.67	22 552	64.04	135	
2.50 to <10	27.46	3.23	5 897	94.37	67	
10 to <100	21.71	3.54	1 168	120.66	42	
100 (default)	38.73	4.94	–	–	478	
Total	22.73	2.81	49 710	49.19	778	1 327

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Specialised lending					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	105	–	–	105	0.07	1
0.15 to <0.25	1 809	163	–	1 809	0.20	4
0.25 to <0.50	35 751	2 880	61.42	35 946	0.38	31
0.50 to <0.75	10 469	441	57.55	10 615	0.70	46
0.75 to <2.50	22 508	957	39.66	22 924	1.54	437
2.50 to <10	5 465	144	12.61	5 538	4.32	560
10 to <100	2 192	1	58.00	2 193	15.61	383
100 (default)	1 365	–	–	1 365	100.00	32
Total	79 664	4 586	52.79	80 495	3.12	1 494

	Specialised lending					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	20.56	2.95	14	13.33	–	
0.15 to <0.25	24.08	3.19	517	28.58	1	
0.25 to <0.50	16.77	2.00	7 811	21.73	23	
0.50 to <0.75	23.22	2.54	4 742	44.67	17	
0.75 to <2.50	27.88	2.43	16 029	69.92	102	
2.50 to <10	28.32	3.04	5 450	98.41	63	
10 to <100	21.91	3.19	2 762	125.95	80	
100 (default)	50.29	4.97	–	–	687	
Total	22.46	2.38	37 325	46.37	973	1 098

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Sovereign					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	29 021	140	55.67	29 099	0.04	6
0.15 to <0.25	–	–	–	–	–	–
0.25 to <0.50	175 209	2 893	56.06	169 475	0.48	17
0.50 to <0.75	1 694	429	48.35	1 907	0.68	45
0.75 to <2.50	485	76	50.55	519	1.62	53
2.50 to <10	2 558	735	55.78	2 200	4.91	662
10 to <100	661	1 276	52.43	1 401	24.63	8
100 (default)	564	6	–	567	100.00	2
Total	**210 192**	**5 555**	**54.51**	**205 168**	**0.91**	**793**

	Sovereign					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	13.15	0.23	529	1.82	1	
0.15 to <0.25	–	–	–	–	–	
0.25 to <0.50	7.53	2.42	19 837	11.70	61	
0.50 to <0.75	27.95	3.12	1 187	62.24	4	
0.75 to <2.50	22.50	1.55	256	49.33	2	
2.50 to <10	7.12	3.45	588	26.73	8	
10 to <100	52.01	2.29	3 955	282.30	161	
100 (default)	2.50	1.22	–	–	14	
Total	**8.84**	**2.12**	**26 352**	**12.84**	**251**	**628**

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Sovereign					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	5 035	–	–	5 035	0.04	2
0.15 to <0.25	–	–	–	–	–	–
0.25 to <0.50	136 513	7 928	54.93	139 546	0.48	19
0.50 to <0.75	902	80	18.46	944	0.62	45
0.75 to <2.50	2 339	598	52.57	2 678	1.99	33
2.50 to <10	2 514	1 186	54.10	2 677	4.96	1 134
10 to <100	–	1 359	50.51	686	10.08	7
100 (default)	1 106	–	–	1 102	100.00	2
Total	148 409	11 151	53.92	152 668	1.33	1 242

	Sovereign					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	18.79	0.89	249	4.95	–	
0.15 to <0.25	–	–	–	–	–	
0.25 to <0.50	8.00	2.13	17 728	12.70	51	
0.50 to <0.75	25.13	3.43	473	50.11	1	
0.75 to <2.50	24.61	1.63	1 681	62.77	14	
2.50 to <10	7.60	3.02	748	27.94	10	
10 to <100	20.95	3.07	250	36.44	14	
100 (default)	2.50	1.01	–	–	28	
Total	8.76	2.10	21 129	13.84	118	190

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Banks and securities firms					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	33 514	2 378	39.78	33 948	0.05	51
0.15 to <0.25	6 346	4 865	56.68	9 161	0.17	35
0.25 to <0.50	13 303	3 696	48.01	11 117	0.43	68
0.50 to <0.75	4 289	1 367	54.43	5 036	0.70	35
0.75 to <2.50	647	730	35.18	922	1.62	45
2.50 to <10	310	1 693	20.71	604	4.65	43
10 to <100	124	282	22.23	146	12.78	29
100 (default)	–	–	–	–	–	–
Total	58 533	15 011	45.91	60 934	0.29	306

	Banks and securities firms					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	27.37	0.46	2 619	7.71	5	
0.15 to <0.25	27.98	0.39	1 596	17.42	4	
0.25 to <0.50	30.16	1.01	4 530	40.75	14	
0.50 to <0.75	19.53	1.32	1 885	37.43	6	
0.75 to <2.50	44.21	1.49	1 027	111.39	7	
2.50 to <10	46.47	0.60	824	136.42	13	
10 to <100	45.67	0.76	282	193.15	7	
100 (default)	–	–	–	–	–	
Total	27.81	0.64	12 763	20.95	56	38

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Banks and securities firms					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	27 883	3 494	41.58	26 929	0.07	46
0.15 to <0.25	8 795	5 014	56.20	11 745	0.17	36
0.25 to <0.50	24 372	3 410	45.11	12 111	0.43	63
0.50 to <0.75	5 484	1 143	53.67	6 103	0.67	29
0.75 to <2.50	634	471	34.66	1 000	1.55	46
2.50 to <10	951	2 055	20.94	1 442	4.72	40
10 to <100	225	314	20.84	291	13.17	24
100 (default)	–	–	–	–	–	–
Total	68 344	15 901	44.53	59 621	0.42	284

	Banks and securities firms					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	29.59	0.45	2 439	9.06	6	
0.15 to <0.25	31.58	0.46	2 354	20.04	6	
0.25 to <0.50	25.96	1.11	4 891	40.38	15	
0.50 to <0.75	24.28	2.26	3 177	52.06	9	
0.75 to <2.50	48.01	1.15	1 180	118.00	7	
2.50 to <10	47.56	0.90	2 055	142.51	32	
10 to <100	41.35	0.85	507	174.23	14	
100 (default)	–	–	–	–	–	
Total	29.50	0.79	16 603	27.85	89	61

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	SME corporate					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	–	–	–	–	–	–
0.15 to <0.25	8 135	3 055	98.42	11 142	0.24	33
0.25 to <0.50	2 266	722	14.48	2 374	0.42	1 528
0.50 to <0.75	11 616	10 550	42.50	15 514	0.60	6 461
0.75 to <2.50	34 128	12 411	57.38	39 573	1.51	13 198
2.50 to <10	12 018	4 637	55.35	13 880	3.85	8 645
10 to <100	2 545	257	52.97	2 659	21.47	3 704
100 (default)	2 234	–	48.11	2 253	100.00	1 055
Total	72 942	31 632	55.07	87 395	4.67	34 624

	SME corporate					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	–	–	–	–	–	
0.15 to <0.25	26.71	1.00	3 141	28.19	7	
0.25 to <0.50	24.52	2.10	816	34.37	2	
0.50 to <0.75	21.79	2.35	5 900	38.03	20	
0.75 to <2.50	20.75	2.04	18 799	47.50	124	
2.50 to <10	24.75	2.14	10 100	72.77	133	
10 to <100	22.63	2.17	2 873	108.05	134	
100 (default)	44.35	2.96	664	29.47	963	
Total	23.10	2.01	42 293	48.39	1 383	1 970

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	SME corporate					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	–	–	–	–	–	–
0.15 to <0.25	655	413	5.54	677	0.18	50
0.25 to <0.50	9 451	3 940	94.42	13 171	0.27	4 053
0.50 to <0.75	8 801	7 677	49.73	11 915	0.57	5 569
0.75 to <2.50	28 627	10 732	50.53	33 020	1.52	13 822
2.50 to <10	15 851	5 856	60.68	18 366	4.05	8 890
10 to <100	3 705	710	62.62	3 942	21.28	1 913
100 (default)	2 865	–	51.90	2 865	100.00	2 600
Total	69 955	29 328	57.90	83 956	6.02	36 897

	SME corporate					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	–	–	–	–	–	
0.15 to <0.25	9.12	1.04	41	6.06	–	
0.25 to <0.50	26.96	1.17	4 024	30.55	10	
0.50 to <0.75	19.70	2.53	3 616	30.35	13	
0.75 to <2.50	21.75	2.00	14 605	44.23	108	
2.50 to <10	23.92	2.07	11 894	64.76	178	
10 to <100	23.49	1.91	4 625	117.33	207	
100 (default)	41.52	2.76	1 034	36.09	1 124	
Total	23.41	1.98	39 839	47.45	1 640	1 266

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	SME retail*					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	29	3	114.89	32	0.09	97
0.15 to <0.25	5	12	94.38	17	0.21	114
0.25 to <0.50	430	202	61.60	550	0.35	4 400
0.50 to <0.75	3 315	1 180	53.87	3 914	0.58	10 875
0.75 to <2.50	25 140	11 398	62.58	33 441	1.75	394 082
2.50 to <10	23 887	3 121	47.07	26 835	4.23	2 006 053
10 to <100	4 531	253	38.83	4 727	28.41	78 081
100 (default)	5 736	–	–	5 731	100.00	85 504
Total	63 073	16 169	58.60	75 247	11.72	2 579 206

	SME retail					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity* years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	28.95		2	6.25	–	
0.15 to <0.25	58.03		4	23.53	–	
0.25 to <0.50	44.25		151	27.45	1	
0.50 to <0.75	24.54		801	20.46	6	
0.75 to <2.50	32.26		14 050	42.01	193	
2.50 to <10	36.86		15 182	56.58	436	
10 to <100	40.06		4 403	93.15	549	
100 (default)	52.71		3 189	55.64	3 246	
Total	35.64		37 782	50.21	4 431	5 591

* *As per the Regulations, average maturity not applied for the SME retail RWA calculation.*

The increase in number of obligors in the 2.50 to <10 bucket from 2020 to 2021 was due to a migration from the 0.75 to 2.50 bucket in the 2021 financial year.

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	SME retail					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	26	15	47.33	33	0.08	92
0.15 to <0.25	3	13	83.57	14	0.21	131
0.25 to <0.50	859	273	50.29	996	0.35	5 155
0.50 to <0.75	2 242	1 231	51.84	2 988	0.56	9 074
0.75 to <2.50	26 998	11 571	59.02	35 561	1.68	713 037
2.50 to <10	22 275	3 193	42.18	24 957	4.24	1 545 797
10 to <100	8 060	514	21.49	8 264	35.66	91 125
100 (default)	6 147	–	–	6 147	100.00	122 240
Total	66 610	16 810	54.01	78 960	13.64	2 486 651

	SME retail					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity* years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	31.68		3	9.09	–	
0.15 to <0.25	58.64		4	28.57	–	
0.25 to <0.50	39.75		246	24.70	1	
0.50 to <0.75	26.55		642	21.49	4	
0.75 to <2.50	33.68		15 239	42.85	201	
2.50 to <10	37.98		14 534	58.24	415	
10 to <100	39.93		7 475	90.45	1 185	
100 (default)	52.52		3 949	64.24	3 609	
Total	36.97		42 092	53.31	5 415	5 651

* *As per the Regulations, average maturity not applied for the SME retail RWA calculation.*

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Retail mortgages					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	9 403	10 208	24.32	11 886	0.09	21 602
0.15 to <0.25	5 699	5 870	44.72	8 324	0.18	11 281
0.25 to <0.50	22 907	12 698	57.67	30 229	0.38	33 512
0.50 to <0.75	39 646	6 308	51.13	42 872	0.63	44 323
0.75 to <2.50	96 307	20 622	80.82	112 975	1.39	158 671
2.50 to <10	22 670	2 039	87.31	24 451	4.36	38 615
10 to <100	9 160	179	150.65	9 429	30.81	15 791
100 (default)	13 195	–	–	13 493	100.00	19 740
Total	218 987	57 924	59.34	253 659	7.67	343 535

	Retail mortgages					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity* years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	15.60		429	3.61	2	
0.15 to <0.25	14.66		486	5.84	2	
0.25 to <0.50	14.94		3 140	10.39	18	
0.50 to <0.75	16.66		7 063	16.47	46	
0.75 to <2.50	17.04		31 692	28.05	272	
2.50 to <10	16.98		13 210	54.03	181	
10 to <100	16.26		8 340	88.45	464	
100 (default)	24.29		6 655	49.32	2 873	
Total	16.93		71 015	28.00	3 858	4 202

* *As per the Regulations, average maturity not applied for the retail mortgages RWA calculation.*

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Retail mortgages					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	9 831	10 312	25.17	12 426	0.09	21 824
0.15 to <0.25	4 879	5 827	38.95	7 148	0.18	10 444
0.25 to <0.50	21 692	12 070	50.77	27 821	0.39	31 903
0.50 to <0.75	38 382	7 475	39.51	41 335	0.63	43 777
0.75 to <2.50	98 479	23 262	62.86	113 100	1.39	168 360
2.50 to <10	22 496	3 320	44.23	23 965	4.32	34 906
10 to <100	9 047	350	52.46	9 231	29.31	15 160
100 (default)	12 707	–	–	12 666	100.00	21 408
Total	217 513	62 616	48.26	247 692	7.42	347 782

	Retail mortgages					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity* years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	16.14		463	3.73	2	
0.15 to <0.25	15.09		425	5.95	2	
0.25 to <0.50	15.30		2 977	10.70	17	
0.50 to <0.75	16.84		6 827	16.52	44	
0.75 to <2.50	17.33		32 300	28.56	278	
2.50 to <10	17.61		13 239	55.24	181	
10 to <100	16.53		8 301	89.93	454	
100 (default)	24.92		10 856	85.71	2 360	
Total	17.28		75 388	30.44	3 338	3 846

* *As per the Regulations, average maturity not applied for the retail mortgages RWA calculation.*

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Retail revolving					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	460	4 446	65.39	3 367	0.13	96 347
0.15 to <0.25	448	3 445	74.16	3 003	0.20	88 363
0.25 to <0.50	2 125	8 747	75.26	8 709	0.36	297 370
0.50 to <0.75	2 128	4 917	78.77	6 001	0.63	187 266
0.75 to <2.50	10 806	11 710	79.57	20 124	1.48	622 852
2.50 to <10	14 452	6 196	86.80	19 831	4.59	506 581
10 to <100	3 568	612	104.63	4 209	25.30	126 757
100 (default)	4 196	–	–	4 310	100.00	138 535
Total	38 183	40 073	77.99	69 554	9.58	2 064 071

	Retail revolving					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity* years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	73.39		193	5.73	3	
0.15 to <0.25	71.38		246	8.19	4	
0.25 to <0.50	70.79		1 109	12.73	22	
0.50 to <0.75	71.04		1 208	20.13	27	
0.75 to <2.50	71.10		7 724	38.38	213	
2.50 to <10	72.01		16 998	85.71	655	
10 to <100	70.53		7 300	173.44	747	
100 (default)	79.23		527	12.23	3 340	
Total	71.91		35 305	50.76	5 011	5 309

* *As per the Regulations, average maturity not applied for the retail revolving RWA calculation.*

The decrease in the retail revolving portfolio was due to Discovery Credit Card moving to Discovery Bank in the 2021 financial year.

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Retail revolving					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	449	5 115	62.52	3 647	0.12	115 015
0.15 to <0.25	485	3 963	70.14	3 265	0.20	111 788
0.25 to <0.50	2 162	9 651	70.89	9 004	0.36	320 292
0.50 to <0.75	2 063	4 889	72.24	5 594	0.63	184 085
0.75 to <2.50	10 581	12 402	71.28	19 420	1.46	633 600
2.50 to <10	15 605	6 995	78.31	21 083	4.74	588 106
10 to <100	4 835	784	86.65	5 515	25.24	169 242
100 (default)	3 945	–	–	3 910	100.00	302 455
Total	40 125	43 799	71.57	71 438	9.33	2 424 583

	Retail revolving					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity* years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	71.02		195	5.35	3	
0.15 to <0.25	69.26		256	7.84	5	
0.25 to <0.50	69.43		1 129	12.54	22	
0.50 to <0.75	69.86		1 109	19.82	25	
0.75 to <2.50	70.19		7 271	37.44	199	
2.50 to <10	71.81		18 439	87.46	717	
10 to <100	69.94		9 478	171.86	966	
100 (default)	78.59		1 923	49.18	2 982	
Total	70.99		39 800	55.71	4 919	5 360

* *As per the Regulations, average maturity not applied for the retail revolving RWA calculation.*

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Other retail					
	As at 30 June 2021					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	46	77	81.89	98	0.08	366
0.15 to <0.25	16	84	71.80	70	0.19	415
0.25 to <0.50	1 140	342	94.99	1 324	0.42	9 095
0.50 to <0.75	3 777	93	79.88	3 821	0.56	25 223
0.75 to <2.50	39 013	294	93.27	39 147	1.73	269 033
2.50 to <10	42 939	64	100.14	43 002	4.91	595 670
10 to <100	12 726	15	102.34	12 740	29.08	1 813 358
100 (default)	15 654	–	–	15 655	100.00	453 818
Total	115 311	969	90.42	115 857	19.15	3 166 978

	Other retail					
	As at 30 June 2021					
PD scale	Average LGD %	Average maturity* years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	47.64		12	12.24	–	
0.15 to <0.25	62.60		19	27.14	–	
0.25 to <0.50	19.06		173	13.07	1	
0.50 to <0.75	20.41		628	16.44	4	
0.75 to <2.50	27.65		14 106	36.03	193	
2.50 to <10	51.71		35 339	82.23	1 181	
10 to <100	53.76		15 727	122.92	1 978	
100 (default)	60.04		11 277	72.03	9 003	
Total	43.53		77 281	66.69	12 360	13 668

* *As per the Regulations, average maturity not applied for the other retail RWA calculation.*

CR6: AIRB – FRBSA CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Other retail					
	As at 30 June 2020					
PD scale	Original on-balance sheet gross exposure R million	Off-balance sheet exposures pre-CCF R million	Average CCF %	EAD post-CRM and post-CCF R million	Average PD %	Number of obligors
0.00 to <0.15	32	118	94.98	137	0.09	269
0.15 to <0.25	14	108	71.13	82	0.18	563
0.25 to <0.50	943	223	88.61	1 041	0.42	8 500
0.50 to <0.75	3 914	122	71.64	3 955	0.56	27 021
0.75 to <2.50	40 336	312	109.61	40 458	1.75	292 561
2.50 to <10	42 310	93	100.66	42 403	4.94	626 552
10 to <100	16 648	13	99.98	16 661	30.77	1 715 804
100 (default)	16 144	–	–	16 144	100.00	508 245
Total	120 341	989	93.28	120 881	19.94	3 179 515

	Other retail					
	As at 30 June 2020					
PD scale	Average LGD %	Average maturity* years	RWA R million	RWA density %	Expected loss R million	Provisions R million
0.00 to <0.15	54.84		20	14.60	–	
0.15 to <0.25	52.61		18	21.95	–	
0.25 to <0.50	20.18		145	13.93	1	
0.50 to <0.75	20.36		648	16.38	–	
0.75 to <2.50	28.03		14 818	36.63	203	
2.50 to <10	50.70		34 174	80.59	1 137	
10 to <100	49.84		19 089	114.57	2 515	
100 (default)	56.27		6 713	41.58	8 947	
Total	42.49		75 625	62.56	12 803	13 798

* *As per the Regulations, average maturity not applied for the other retail RWA calculation.*

EFFECT ON RWA OF CREDIT DERIVATIVES USED AS CREDIT RISK MITIGATION TECHNIQUES

The following table illustrates the effect of credit derivatives on the capital requirement calculation under the AIRB approach. As the group does not apply the foundation internal ratings-based approach, the rows related to this approach have been excluded from the CR7 table. Pre-credit derivatives RWA (before taking credit derivatives' mitigation effect into account) has been selected to assess the impact of credit derivatives on RWA, irrespective of how the credit risk mitigation technique feeds into the RWA calculation. No credit derivatives were applied as credit risk mitigation during the year. There were no exposures in the equity and purchased receivables portfolios in the year under review. Rows 14 and 16 were therefore excluded from this table.

CR7: AIRB – EFFECT ON RWA OF CREDIT DERIVATIVES USED AS CREDIT RISK MITIGATION TECHNIQUES

		Pre-credit derivatives RWA	
		As at 30 June	
R million		**2021**	2020
2.	Sovereign	**26 352**	21 129
4.	Banks and securities firms	**12 763**	16 603
6.	Corporate	**99 109**	111 444
8.	Specialised lending	**49 711**	50 312
	SME corporate	**42 293**	39 840
9.	Retail revolving	**35 304**	39 800
10.	Retail mortgages	**71 017**	75 390
11.	SME retail	**37 783**	42 090
12.	Other retail	**77 281**	75 626
17.	**Total**	**451 613**	472 234

RWA FLOW STATEMENT OF CREDIT RISK EXPOSURE UNDER AIRB

The calculation of credit RWA for FRBSA is based on internally developed, quantitative models in line with the AIRB approach. The three credit risk measures, namely PD, EAD and LGD, are used along with prescribed correlations (dependent on the asset class) and estimates of maturity, where applicable, to derive credit RWA. The quantitative models also adhere to the AIRB requirements related to annual validation.

For the remaining entities, credit RWA is based on the standardised approach where regulatory risk weights are prescribed per asset class. Even though the remaining entities do not have regulatory approval to use the AIRB approach, internally developed quantitative models are used for internal assessment of credit risk.

The following table presents a flow statement explaining variations in the credit RWA determined under the AIRB approach.

CR8: RWA FLOW STATEMENT OF CREDIT RISK EXPOSURES UNDER AIRB

R million		**RWA**
1.	**RWA at 31 March 2021**	**447 799**
2.	Asset size	**7 692**
3.	Asset quality	**(1 741)**
4.	Model updates	**–**
5.	Methodology and policy*	**(2 137)**
6.	Acquisitions and disposals	**–**
7.	Foreign exchange movements	**–**
8.	Other	**–**
9.	**RWA at 30 June 2021****	**451 613**

* *Relates to the implementation of the Specialised Lending Project Finance model.*

** *The RWA represents credit risk exposures excluding securitisation exposure per OV1: Overview of RWA table on page 189.*

BACKTESTING OF PD PER PORTFOLIO

The following table provides backtesting data to validate the reliability of PD calculations. Comparison of the PD used in AIRB capital calculations with the effective default rates of bank obligors is done using a minimum five-year average annual default rate to allow for stable quantities to be compared.

CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO

	Corporate							
	As at 30 June 2021							
				Number of obligors		Defaulted obligors		
PD scale	**External rating equivalent**	**Weighted average PD %**	**Arithmetic average PD by obligors %**	**End of prior year**	**End of current year**	**During current year**	**New during current year**	**Average historical annual default rate %**
0.00 to <0.12	AAA, AA, A	**0.09**	**0.09**	**1**	**3**	**–**	**–**	**–**
0.12 to <0.45	BBB	**0.29**	**0.28**	**90**	**90**	**–**	**–**	**–**
0.45 to <1.08	BB+, BB	**0.63**	**0.66**	**142**	**152**	**–**	**–**	**–**
1.08 to <1.80	BB-	**1.36**	**1.38**	**127**	**130**	**–**	**–**	**–**
1.80 to <3.23	B+	**2.45**	**2.45**	**67**	**62**	**–**	**–**	**–**
3.23 to <9.12	B	**4.63**	**4.95**	**121**	**124**	**–**	**–**	**–**
9.12 to <18.23	B-	**10.07**	**10.07**	**56**	**66**	**–**	**–**	**–**
18.23 to <99.99	Below B-	**19.81**	**25.54**	**37**	**40**	**–**	**–**	**–**
100 (default)	Defaulted	**100.00**	**100.00**	**10**	**9**	**9**	**3**	**100.00**
Total		**1.74**	**5.58**	**651**	**676**	**9**	**3**	**0.38**

	Corporate							
	As at 30 June 2020							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	0.09	0.09	1	1	–	–	–
0.12 to <0.45	BBB	0.28	0.28	118	90	–	–	–
0.45 to <1.08	BB+, BB	0.62	0.65	144	142	–	–	–
1.08 to <1.80	BB-	1.37	1.29	101	127	–	–	–
1.80 to <3.23	B+	2.45	2.45	85	67	–	–	–
3.23 to <9.12	B	4.78	4.86	104	121	–	–	–
9.12 to <18.23	B-	10.07	10.07	51	56	–	–	–
18.23 to <99.99	Below B-	22.71	32.57	18	37	–	–	–
100 (default)	Defaulted	100.00	100.00	10	10	10	–	100.00
Total		2.33	6.53	632	651	10	–	0.35

CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO continued

	Specialised lending								
	As at 30 June 2021								
				Number of obligors		Defaulted obligors			
PD scale	**External rating equivalent**	**Weighted average PD %**	**Arithmetic average PD by obligors %**	**End of prior year**	**End of current year**	**During current year**	**New during current year**	**Average historical annual default rate %**
0.00 to <0.12	AAA, AA, A	**–**	**–**	**1**	**–**	**–**	**–**	**–**
0.12 to <0.45	BBB	**0.37**	**0.34**	**30**	**37**	**–**	**–**	**–**
0.45 to <1.08	BB+, BB	**0.64**	**0.86**	**120**	**297**	**–**	**–**	**0.53**
1.08 to <1.80	BB-	**1.34**	**1.39**	**239**	**674**	**28**	**20**	**1.32**
1.80 to <3.23	B+	**2.45**	**2.38**	**218**	**384**	**25**	**9**	**1.12**
3.23 to <9.12	B	**4.56**	**4.10**	**380**	**184**	**36**	**32**	**1.75**
9.12 to <18.23	B-	**11.17**	**12.30**	**350**	**16**	**–**	**–**	**3.06**
18.23 to <99.99	Below B-	**27.04**	**28.05**	**124**	**17**	**24**	**18**	**14.94**
100 (default)	Defaulted	**100.00**	**100.00**	**32**	**33**	**263**	**22**	**100.00**
Total		**2.42**	**6.18**	**1 494**	**1 642**	**376**	**101**	**4.46**

	Specialised lending							
	As at 30 June 2020							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	0.07	0.06	–	1	–	–	–
0.12 to <0.45	BBB	0.35	0.34	25	30	–	–	–
0.45 to <1.08	BB+, BB	0.70	0.86	254	120	–	–	0.86
1.08 to <1.80	BB-	1.41	1.40	291	239	1	1	1.28
1.80 to <3.23	B+	2.46	2.48	389	218	11	11	0.85
3.23 to <9.12	B	5.02	4.49	211	380	14	14	1.40
9.12 to <18.23	B-	12.09	11.83	158	350	20	20	2.40
18.23 to <99.99	Below B-	24.81	25.28	27	124	41	41	6.79
100 (default)	Defaulted	100.00	100.00	28	32	206	199	100.00
Total		3.12	5.84	1 383	1 494	293	286	5.37

CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO continued

	Sovereign							
	As at 30 June 2021							
				Number of obligors		Defaulted obligors		
PD scale	**External rating equivalent**	**Weighted average PD %**	**Arithmetic average PD by obligors %**	**End of prior year**	**End of current year**	**During current year**	**New during current year**	**Average historical annual default rate %**
0.00 to <0.12	AAA, AA, A	**0.04**	**0.04**	**2**	**5**	**–**	**–**	**–**
0.12 to <0.45	BBB	**0.14**	**0.14**	**6**	**1**	**–**	**–**	**–**
0.45 to <1.08	BB+, BB	**0.48**	**0.61**	**66**	**70**	**–**	**–**	**–**
1.08 to <1.80	BB-	**1.25**	**1.43**	**18**	**30**	**–**	**–**	**–**
1.80 to <3.23	B+	**2.46**	**2.49**	**28**	**21**	**–**	**–**	**–**
3.23 to <9.12	B	**4.93**	**6.66**	**1 113**	**656**	**–**	**–**	**6.35**
9.12 to <18.23	B-	**10.07**	**11.04**	**7**	**5**	**–**	**–**	**–**
18.23 to <99.99	Below B-	**24.84**	**38.17**	**–**	**3**	**–**	**–**	**–**
100 (default)	Defaulted	**100.00**	**100.00**	**2**	**2**	**2**	**–**	**100.00**
Total		**0.91**	**7.57**	**1 242**	**793**	**2**	**–**	**6.37**

	Sovereign							
	As at 30 June 2020							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	0.04	0.04	2	2	–	–	–
0.12 to <0.45	BBB	0.40	0.37	30	6	–	–	–
0.45 to <1.08	BB+, BB	0.48	0.58	67	66	–	–	–
1.08 to <1.80	BB-	1.66	1.37	25	18	–	–	–
1.80 to <3.23	B+	2.43	2.49	28	28	–	–	–
3.23 to <9.12	B	4.98	6.70	238	1 113	–	–	6.24
9.12 to <18.23	B-	10.07	48.61	2	7	–	–	–
18.23 to <99.99	Below B-	–	117.30	–	–	–	–	–
100 (default)	Defaulted	100.00	100.00	1	2	4	1	100.00
Total		1.33	22.18	393	1 242	4	1	6.24

CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO continued

	Banks and securities firms							
	As at 30 June 2021							
				Number of obligors		Defaulted obligors		
PD scale	**External rating equivalent**	**Weighted average PD %**	**Arithmetic average PD by obligors %**	**End of prior year**	**End of current year**	**During current year**	**New during current year**	**Average historical annual default rate %**
0.00 to <0.12	AAA, AA, A	**0.05**	**0.06**	**46**	**51**	**–**	**–**	**–**
0.12 to <0.45	BBB	**0.22**	**0.26**	**64**	**67**	**–**	**–**	**–**
0.45 to <1.08	BB+, BB	**0.57**	**0.61**	**66**	**73**	**–**	**–**	**–**
1.08 to <1.80	BB-	**1.42**	**1.18**	**19**	**21**	**–**	**–**	**–**
1.80 to <3.23	B+	**2.45**	**2.46**	**25**	**22**	**–**	**–**	**–**
3.23 to <9.12	B	**4.65**	**4.84**	**40**	**43**	**–**	**–**	**–**
9.12 to <18.23	B-	**10.07**	**10.07**	**16**	**17**	**–**	**–**	**–**
18.23 to <99.99	Below B-	**29.25**	**27.50**	**8**	**12**	**–**	**–**	**–**
100 (default)	Defaulted	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Total		**0.29**	**5.87**	**284**	**306**	**–**	**–**	**–**

	Banks and securities firms							
	As at 30 June 2020							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	0.07	0.07	56	46	–	–	–
0.12 to <0.45	BBB	0.21	0.25	113	64	–	–	–
0.45 to <1.08	BB+, BB	0.56	0.60	46	66	–	–	–
1.08 to <1.80	BB-	1.23	1.23	35	19	–	–	–
1.80 to <3.23	B+	2.45	2.45	28	25	–	–	–
3.23 to <9.12	B	4.72	4.79	252	40	–	–	–
9.12 to <18.23	B-	10.07	10.07	84	16	–	–	–
18.23 to <99.99	Below B-	25.95	31.34	9	8	–	–	–
100 (default)	Defaulted	100.00	100.00	1	–	1	–	100.00
Total		0.42	3.20	624	284	1	–	–

CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO continued

	SME corporate							
	As at 30 June 2021							
				Number of obligors		Defaulted obligors		
PD scale	**External rating equivalent**	**Weighted average PD %**	**Arithmetic average PD by obligors %**	**End of prior year**	**End of current year**	**During current year**	**New during current year**	**Average historical annual default rate %**
0.00 to <0.12	AAA, AA, A	**–**	**–**	**5**	**–**	**–**	**–**	**–**
0.12 to <0.45	BBB	**0.25**	**0.41**	**3 952**	**1 512**	**67**	**66**	**0.13**
0.45 to <1.08	BB+, BB	**0.71**	**0.76**	**12 511**	**12 197**	**411**	**321**	**0.83**
1.08 to <1.80	BB-	**1.36**	**1.42**	**4 257**	**4 496**	**384**	**332**	**1.80**
1.80 to <3.23	B+	**2.40**	**2.44**	**4 228**	**4 839**	**436**	**412**	**2.39**
3.23 to <9.12	B	**4.57**	**4.31**	**7 283**	**6 770**	**3 223**	**3 136**	**3.39**
9.12 to <18.23	B-	**14.05**	**16.30**	**968**	**1 948**	**667**	**157**	**9.44**
18.23 to <99.99	Below B-	**27.82**	**27.91**	**1 093**	**1 807**	**632**	**456**	**16.96**
100 (default)	Defaulted	**100.00**	**100.00**	**2 600**	**1 055**	**12 812**	**2 405**	**100.00**
Total		**4.67**	**6.69**	**36 897**	**34 624**	**18 632**	**7 285**	**4.17**

	SME corporate							
	As at 30 June 2020							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	0.08	0.08	17	5	1	1	–
0.12 to <0.45	BBB	0.26	0.36	4 882	3 952	91	90	0.14
0.45 to <1.08	BB+, BB	0.69	0.79	9 549	12 511	562	558	0.59
1.08 to <1.80	BB-	1.38	1.40	4 191	4 257	434	434	1.57
1.80 to <3.23	B+	2.39	2.37	3 911	4 228	900	900	1.11
3.23 to <9.12	B	4.59	4.28	3 444	7 283	272	269	1.67
9.12 to <18.23	B-	13.77	12.44	301	968	145	145	6.33
18.23 to <99.99	Below B-	28.46	29.95	162	1 093	215	207	9.33
100 (default)	Defaulted	100.00	100.00	995	2 600	8 720	7 335	100.00
Total		6.02	6.46	27 452	36 897	11 340	9 939	2.88

CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO continued

	SME retail							
	As at 30 June 2021							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	**0.08**	**0.08**	**79**	**80**	**–**	**–**	**1.03**
0.12 to <0.45	BBB	**0.34**	**0.35**	**4 637**	**3 857**	**24**	**24**	**0.65**
0.45 to <1.08	BB+, BB	**0.78**	**0.75**	**32 140**	**22 160**	**191**	**191**	**1.53**
1.08 to <1.80	BB-	**1.43**	**1.57**	**246 942**	**115 049**	**3 850**	**3 850**	**0.84**
1.80 to <3.23	B+	**2.48**	**2.53**	**515 939**	**621 355**	**36 127**	**36 123**	**4.40**
3.23 to <9.12	B	**5.23**	**6.41**	**1 472 739**	**1 646 772**	**94 185**	**94 183**	**11.18**
9.12 to <18.23	B-	**12.75**	**13.25**	**49 437**	**57 606**	**4 914**	**4 903**	**16.34**
18.23 to <99.99	Below B-	**37.16**	**39.07**	**42 498**	**26 823**	**11 962**	**11 705**	**39.00**
100 (default)	Defaulted	**100.00**	**100.00**	**122 240**	**85 504**	**105 593**	**10 170**	**100.00**
Total		**11.72**	**8.00**	**2 486 651**	**2 579 206**	**256 846**	**161 149**	**11.19**

	SME retail							
	As at 30 June 2020							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	0.08	0.09	387	79	3	3	0.31
0.12 to <0.45	BBB	0.34	0.35	16 758	4 637	43	43	0.61
0.45 to <1.08	BB+, BB	0.72	0.84	37 523	32 140	151	151	1.17
1.08 to <1.80	BB-	1.32	1.42	214 920	246 942	3 294	3 292	0.70
1.80 to <3.23	B+	2.44	2.32	516 718	515 939	32 820	32 813	2.51
3.23 to <9.12	B	5.18	5.59	785 828	1 472 739	98 564	98 555	7.26
9.12 to <18.23	B-	13.10	13.77	27 526	49 437	4 922	4 907	19.33
18.23 to <99.99	Below B-	44.73	44.74	20 729	42 498	9 551	9 452	44.54
100 (default)	Defaulted	100.00	100.00	56 589	122 240	147 272	106 575	100.00
Total		13.64	8.64	1 676 978	2 486 651	296 620	255 791	6.76

CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO continued

	Retail mortgages							
	As at 30 June 2021							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	**0.09**	**0.08**	**19 669**	**19 822**	**1**	**–**	**0.10**
0.12 to <0.45	BBB	**0.31**	**0.29**	**37 254**	**37 973**	**1**	**–**	**0.19**
0.45 to <1.08	BB+, BB	**0.73**	**0.74**	**99 011**	**105 250**	**32**	**–**	**0.62**
1.08 to <1.80	BB-	**1.35**	**1.37**	**68 350**	**65 850**	**55**	**–**	**1.07**
1.80 to <3.23	B+	**2.30**	**2.34**	**59 658**	**50 183**	**72**	**–**	**2.15**
3.23 to <9.12	B	**4.74**	**4.69**	**25 606**	**27 519**	**186**	**–**	**4.50**
9.12 to <18.23	B-	**12.32**	**12.23**	**6 579**	**5 697**	**54**	**–**	**11.16**
18.23 to <99.99	Below B-	**40.05**	**43.46**	**10 247**	**11 501**	**828**	**–**	**38.99**
100 (default)	Defaulted	**100.00**	**100.00**	**21 408**	**19 740**	**7 715**	**25**	**100.00**
Total		**7.67**	**8.15**	**347 782**	**343 535**	**8 944**	**25**	**7.01**

	Retail mortgages							
	As at 30 June 2020							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	0.08	0.08	19 861	19 669	–	–	0.12
0.12 to <0.45	BBB	0.31	0.29	32 220	37 254	3	–	0.19
0.45 to <1.08	BB+, BB	0.73	0.75	105 934	99 011	26	–	0.61
1.08 to <1.80	BB-	1.36	1.38	82 042	68 350	54	–	1.04
1.80 to <3.23	B+	2.32	2.35	46 468	59 658	79	–	2.16
3.23 to <9.12	B	4.82	4.75	37 418	25 606	120	–	4.39
9.12 to <18.23	B-	12.50	12.46	8 599	6 579	63	3	10.97
18.23 to <99.99	Below B-	39.22	41.39	6 526	10 247	100	–	39.67
100 (default)	Defaulted	100.00	100.00	19 331	21 408	9 631	145	100.00
Total		7.42	7.93	358 399	347 782	10 076	148	7.22

CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO continued

	Retail revolving							
	As at 30 June 2021							
				Number of obligors		**Defaulted obligors**		
PD scale	**External rating equivalent**	**Weighted average PD %**	**Arithmetic average PD by obligors %**	**End of prior year**	**End of current year**	**During current year**	**New during current year**	**Average historical annual default rate %**
0.00 to <0.12	AAA, AA, A	**0.09**	**0.09**	**53 151**	**36 608**	**12**	**–**	**0.68**
0.12 to <0.45	BBB	**0.27**	**0.28**	**441 158**	**412 644**	**259**	**1**	**0.80**
0.45 to <1.08	BB+, BB	**0.74**	**0.74**	**427 549**	**403 763**	**284**	**1**	**1.11**
1.08 to <1.80	BB-	**1.42**	**1.41**	**253 128**	**262 316**	**254**	**1**	**2.10**
1.80 to <3.23	B+	**2.47**	**2.45**	**333 579**	**320 679**	**371**	**–**	**3.43**
3.23 to <9.12	B	**4.98**	**5.03**	**424 066**	**344 886**	**400**	**1**	**7.14**
9.12 to <18.23	B-	**11.75**	**12.11**	**102 446**	**81 552**	**157**	**1**	**14.75**
18.23 to <99.99	Below B-	**40.37**	**39.89**	**87 051**	**63 088**	**156**	**2**	**38.76**
100 (default)	Defaulted	**100.00**	**100.00**	**302 455**	**138 535**	**72 953**	**605**	**100.00**
Total		**9.58**	**7.75**	**2 424 583**	**2 064 071**	**74 846**	**612**	**13.37**

	Retail revolving							
	As at 30 June 2020							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	0.09	0.09	77 877	53 151	27	–	0.70
0.12 to <0.45	BBB	0.27	0.28	286 392	441 158	239	1	0.79
0.45 to <1.08	BB+, BB	0.74	0.75	721 771	427 549	296	3	1.07
1.08 to <1.80	BB-	1.41	1.40	499 355	253 128	219	4	2.07
1.80 to <3.23	B+	2.46	2.45	692 747	333 579	344	3	3.43
3.23 to <9.12	B	5.11	5.15	1 024 063	424 066	553	10	7.19
9.12 to <18.23	B-	11.97	12.20	411 433	102 446	467	2	14.63
18.23 to <99.99	Below B-	40.29	40.37	473 046	87 051	1 828	18	38.41
100 (default)	Defaulted	100.00	100.00	1 321 449	302 455	90 030	3 679	100.00
Total		9.33	7.84	5 508 133	2 424 583	94 003	3 720	15.61

CR9: AIRB – BACKTESTING OF PD PER PORTFOLIO continued

	Other retail							
	As at 30 June 2021							
				Number of obligors		Defaulted obligors		
PD scale	**External rating equivalent**	**Weighted average PD %**	**Arithmetic average PD by obligors %**	**End of prior year**	**End of current year**	**During current year**	**New during current year**	**Average historical annual default rate %**
0.00 to <0.12	AAA, AA, A	**0.06**	**0.04**	**1 400**	**340**	**1**	**–**	**3.07**
0.12 to <0.45	BBB	**0.40**	**0.41**	**48 017**	**7 980**	**4**	**–**	**1.76**
0.45 to <1.08	BB+, BB	**0.73**	**0.71**	**100 010**	**46 782**	**9**	**1**	**1.06**
1.08 to <1.80	BB-	**1.49**	**1.51**	**185 329**	**109 914**	**52**	**1**	**1.62**
1.80 to <3.23	B+	**2.37**	**2.41**	**187 512**	**223 325**	**181**	**2**	**2.68**
3.23 to <9.12	B	**5.31**	**5.65**	**458 257**	**478 558**	**1 540**	**28**	**7.85**
9.12 to <18.23	B-	**11.99**	**12.89**	**293 967**	**244 657**	**2 069**	**9**	**15.28**
18.23 to <99.99	Below B-	**38.99**	**35.87**	**1 396 778**	**1 601 604**	**50 342**	**5 092**	**28.63**
100 (default)	Defaulted	**100.00**	**100.00**	**508 245**	**453 818**	**332 878**	**84 105**	**100.00**
Total		**19.15**	**7.44**	**3 179 515**	**3 166 978**	**387 076**	**89 238**	**47.21**

	Other retail							
	As at 30 June 2020							
				Number of obligors		Defaulted obligors		
PD scale	External rating equivalent	Weighted average PD %	Arithmetic average PD by obligors %	End of prior year	End of current year	During current year	New during current year	Average historical annual default rate %
0.00 to <0.12	AAA, AA, A	0.09	0.04	16	1 400	47	6	3.28
0.12 to <0.45	BBB	0.39	0.06	43 771	48 017	73	6	1.26
0.45 to <1.08	BB+, BB	0.72	0.71	124 637	100 010	246	31	1.08
1.08 to <1.80	BB-	1.50	1.51	230 849	185 329	493	108	1.45
1.80 to <3.23	B+	2.35	2.45	213 531	187 512	4 740	397	2.40
3.23 to <9.12	B	5.31	5.68	495 983	458 257	12 602	1 162	7.45
9.12 to <18.23	B-	12.14	13.02	206 645	293 967	38 745	2 280	14.69
18.23 to <99.99	Below B-	39.15	35.54	154 188	1 396 778	335 673	39 530	35.61
100 (default)	Defaulted	100.00	100.00	199 912	508 245	401 481	112 571	100.00
Total		19.94	7.37	1 669 532	3 179 515	794 100	156 091	19.49

SPECIALISED LENDING EXPOSURES UNDER SLOTTING APPROACH

The following table provides information relating to specialised lending exposures that are rated through the slotting approach. The exposures are split among regulatory asset classes.

CR10: AIRB SPECIALISED LENDING

R million		As at 30 June 2021							
		Other than high-volatility commercial estate*							
					Exposure amount				
Regulatory categories	**Remaining maturity**	**On-balance sheet amount**	**Off-balance sheet amount**	**Risk weight**	**Project finance**	**Income-producing real estate**	**Total**	**RWA**	**Expected losses**
Strong	Less than 2.5 years	**–**	**–**	**50%**	**–**	**–**	**–**	**–**	**–**
	Equal to or more than 2.5 years	**–**	**–**	**70%**	**–**	**–**	**–**	**–**	**–**
Good	Less than 2.5 years	**–**	**–**	**70%**	**–**	**–**	**–**	**–**	**–**
	Equal to or more than 2.5 years	**8**	**–**	**90%**	**–**	**8**	**8**	**11**	**–**
Satisfactory		**182**	**–**	**115%**	**–**	**182**	**182**	**304**	**8**
Weak		**13**	**–**	**250%**	**–**	**13**	**13**	**34**	**1**
Total		**203**	**–**		**–**	**203**	**203**	**350**	**9**

R million		As at 30 June 2020							
		Other than high-volatility commercial estate*							
					Exposure amount				
Regulatory categories	Remaining maturity	On-balance sheet amount	Off-balance sheet amount	Risk weight	Project finance	Income-producing real estate	Total	RWA	Expected losses
Strong	Less than 2.5 years	–	–	50%	–	–	–	–	–
	Equal to or more than 2.5 years	10 640	238	70%	10 736	–	10 736	7 966	43
Good	Less than 2.5 years	–	–	70%	–	–	–	–	–
	Equal to or more than 2.5 years	5 365	51	90%	5 320	17	5 337	5 093	43
Satisfactory		2 448	–	115%	2 137	311	2 448	2 995	71
Weak		69	–	250%	–	69	69	184	7
Total		18 522	289		18 193	397	18 590	16 238	164

* *There were no high-volatility commercial real estate exposures during the year. For specialised lending exposures other than high-volatility commercial real estate, there were no exposures to object finance or commodities asset classes during the year.*

Risk analysis

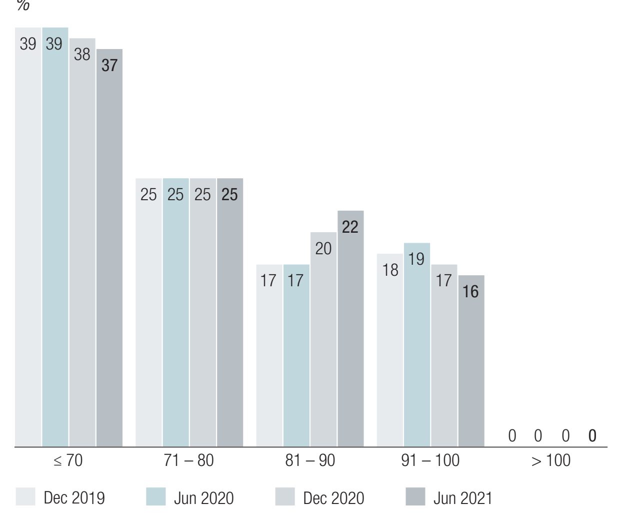
FNB RESIDENTIAL MORTGAGES

The graphs below provide loan balance-to-value ratios and age distributions of residential mortgages.

The portfolio continues to be distributed favorably from a loan-to-value (LTV) ratio perspective, with the balance-to-market value improving during the last year, benefiting from recent house price growth. The total portfolio age distribution remains largely stable.

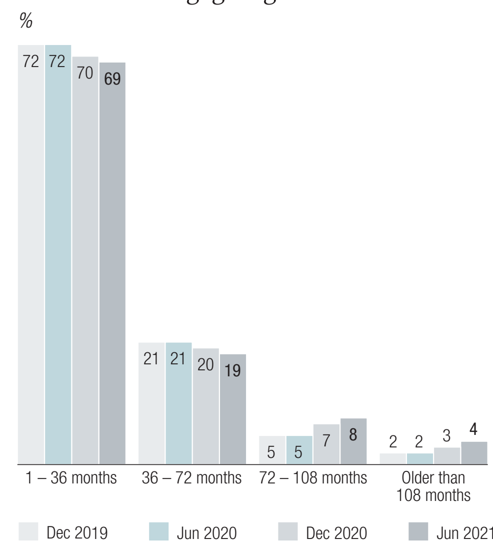
Residential mortgages balance-to-original value

%



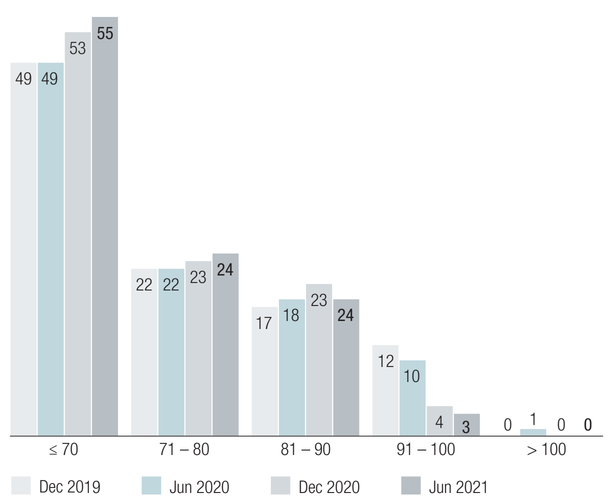
Residential mortgages age distribution

%



Residential mortgages balance-to-market value

%



COUNTERPARTY CREDIT RISK

Introduction and objectives

Counterparty credit risk is the risk of a counterparty to a contract, transaction or agreement defaulting prior to the final settlement of the transaction's cash flows.

Counterparty credit risk measures a counterparty's ability to satisfy its obligations under a contract that has positive economic value to the group at any point during the life of the contract. It differs from normal credit risk in that the economic value of the transaction is uncertain and dependent on market factors that are typically not under the control of the group or the client.

Counterparty credit risk is a risk taken mainly in the group's trading and securities financing businesses. The objective of counterparty credit risk management is to ensure that this risk is appropriately measured, analysed and reported on, and is only taken within specified limits in line with the group's risk appetite framework as mandated by the board.

YEAR UNDER REVIEW AND FOCUS AREAS

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> Enhanced governance around the group's internal counterparty credit risk exposure assessment methodology and the reporting tools for internal derivative credit portfolio reporting. > Finalised and implemented the SA-CCR methodology in January 2021 following the PA's approval. > Prepared final assessment of the group's readiness to comply with BCBS 239 from a counterparty credit risk perspective with review performed by GIA. > Ongoing testing of infrastructure built to aid in the implementation of the Basel margin requirements for non-centrally cleared derivatives.	> Ongoing focus on preparing for the implementation of Basel margin requirements for non-centrally cleared derivatives, expected to go live in September 2021. > Validation of the economic capital model for counterparty credit risk exposure and focus on full parallel reporting with the regulatory methodology. > Continue to embed BCBS 239 requirements and compliance for SA-CCR. > Commence the project to enable the group to implement the standardised approach credit valuation adjustment (SA-CVA) regulations for which the current regulatory date is January 2024, as part of the Basel credit reforms roadmap.

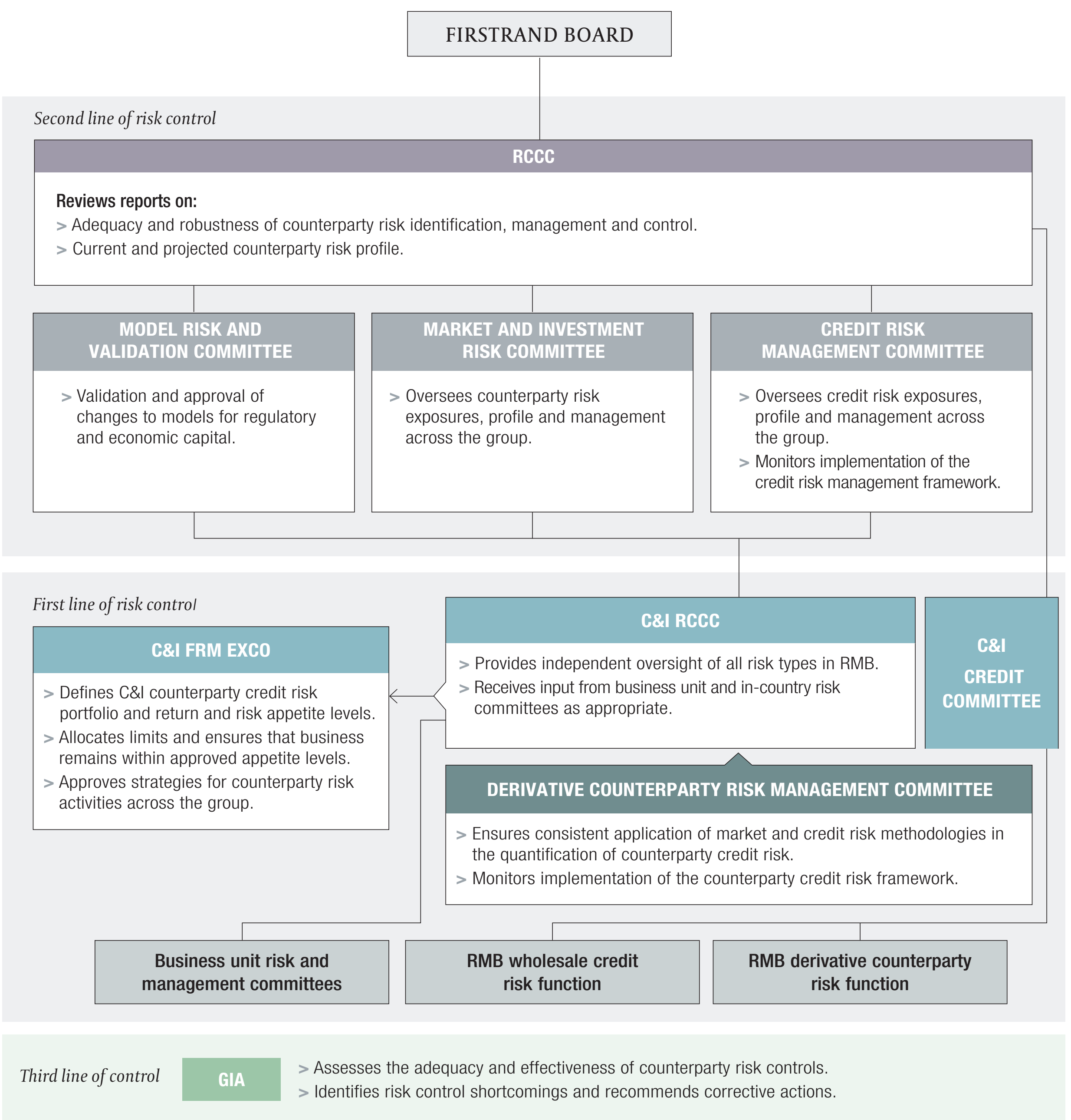
Organisational structure and governance

The market and investment risk committee is responsible for the oversight of counterparty credit risk exposures, profile and management across the group. The wholesale credit function in RMB is responsible for the overall management of credit risk. It is supported by RMB's derivative counterparty risk department, which is responsible for ensuring that market and credit risk methodologies are consistently applied in the quantification of derivative counterparty credit risk.

Counterparty credit risk is managed based on the principles, approaches, policies and processes set out in the credit risk management framework for wholesale credit exposures. In this respect, counterparty credit risk governance aligns closely with the group's credit risk governance framework, with mandates and responsibilities cascading from the board through the C&I RCCC to the respective credit committees and subcommittees, as well as deployed and central risk management functions. Refer to the *Risk governance* section and organisational structure and governance in the *Credit risk* section for more details.

The derivative counterparty risk management committee supports the credit risk management committee and its subcommittees with analysis and quantification of counterparty credit risk for traded product exposures.

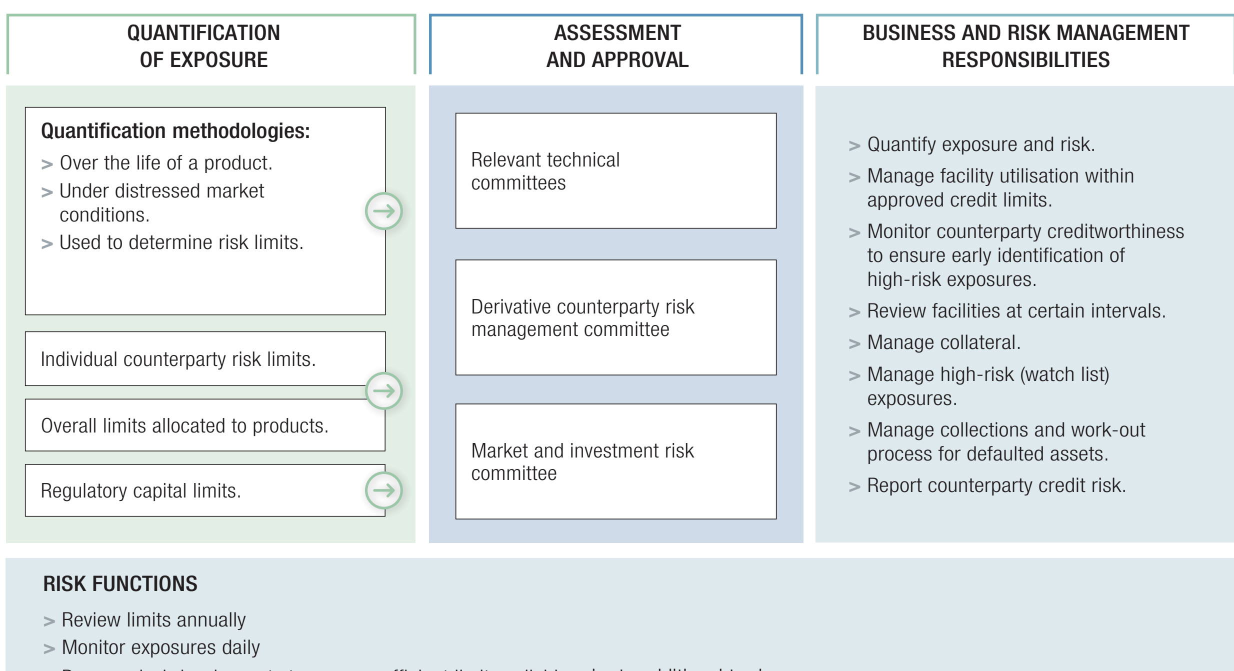
COUNTERPARTY CREDIT RISK GOVERNANCE STRUCTURE



Assessment and management

Measurement of counterparty credit risk aligns closely with credit risk measurement practices and is focused on establishing appropriate limits at a counterparty level and ongoing portfolio risk management. The quantification of risk exposure is described in the following diagram.

QUANTIFICATION OF COUNTERPARTY CREDIT RISK EXPOSURE



The ETL method is applied internally to estimate counterparty credit risk exposure at counterparty and/or portfolio level. These exposures are monitored daily against limits. Excesses and covenant breaches are managed in accordance with excess approval and escalation mandates.

COUNTERPARTY CREDIT RISK MITIGATION

The group's counterparty credit risk mitigation approach is described on page 24.

WRONG-WAY RISK EXPOSURE

Wrong-way risk exposure occurs when exposure to a counterparty is adversely correlated with a reduction in the credit quality of that counterparty. The methods applied in managing counterparty increased credit limits, exposures and collateral create visibility on portfolio concentrations and exposures, which may be a source of wrong-way risk. These areas are monitored and managed within the relevant exposure mandates.

CREDIT VALUATION ADJUSTMENT

CVA is an adjustment to the fair value (or price) of derivative instruments to account for counterparty credit risk. CVA is commonly viewed as the price of counterparty credit risk. This price depends on counterparty credit spreads as well as on the market risk factors that drive derivatives' valuation and, therefore, exposure.

The current CVA framework is being revised by the BCBS with the intention to implement new standards by January 2024. The rationale for revising the current framework includes:

> capturing all CVA risks and better recognition of CVA hedges;

> alignment with industry practices for accounting purposes; and

> alignment with proposed revisions of the market risk framework.

COLLATERAL TO BE PROVIDED IN THE EVENT OF A CREDIT RATING DOWNGRADE

In rare instances, FirstRand has entered into ISDA agreements where both parties would be required to post additional collateral in the event of a credit rating downgrade. The additional collateral to be provided by the group in the event of a credit rating downgrade is not material and would not adversely impact its financial position. The group is phasing out ISDA agreements with these provisions. The number of trades with counterparties with these types of agreements (and the associated risk) is also immaterial.

When assessing the portfolio in aggregate, the collateral that the group would need to provide in the event of a rating downgrade is subject to many factors, including market moves in the underlying traded instruments and netting of existing positions.

Counterparty credit exposure

The *CCR1: Analysis of counterparty credit risk* table provides an overview of counterparty credit risk arising from the group's derivative and structured finance transactions. The information provided in row 1 corresponds to the requirements of SA-CCR as applied by FRBSA and other group entities.
EAD under SA-CCR is determined by scaling the sum of replacement cost and the potential future exposure by a factor of 1.4 (alpha). The group does not apply the internal model method or the simple approach for credit risk mitigation for derivatives and security financing transactions. Rows 2 and 3 of the CCR 1 template is therefore excluded from CCR1.

The comprehensive approach for credit risk mitigation is used to calculate the exposure for collateralised transactions other than collateralised OTC derivative transactions that are subject to SA-CCR. This approach is typically applied to securities financing and repo type transactions.

The table below provides an explanation of the approaches used in the *CCR1: Analysis of counterparty credit risk* table.

Replacement cost	The replacement cost for trades that are not subject to margining requirements is the loss that would occur if a counterparty were to default and was immediately closed out of its transactions. For margined trades, the replacement cost is the loss that would occur if a counterparty were to default at present or at a future date, assuming that the close-out and replacement of transactions occur simultaneously.
Potential future exposure	The potential increase in the exposure between the present and the end of the margin period of risk. An add-on factor is applied to the replacement cost to determine the potential future exposure over the remaining life of the contract.
Effective expected positive exposure (EEPE)	The weighted average of the effective expected exposure over the first year, or, if all the contracts in the netting set mature before one year, over the time period of the longest-maturity contract in the netting set, where the weights represent the proportion of an individual expected exposure over the entire time interval.
EAD post CRM	The amount relevant to the calculated capital requirement by applying credit risk mitigation techniques, credit valuation adjustments and specific wrong-way adjustments.

CCR1 provides a comprehensive view of the methods used to calculate counterparty credit risk regulatory requirements and the main parameters used within each method. The exposures reported exclude CVA charges and exposures cleared through central clearing counterparties (CCP).

CCR1: ANALYSIS OF COUNTERPARTY CREDIT RISK BY APPROACH FOR FRBSA

		As at 30 June 2021				
	R million	**Replacement cost**	**Potential future exposure**	**Alpha used for computing regulatory EAD**	**EAD post CRM**	**RWA**
1.	SA-CCR (for derivatives)*	**12 432**	**12 402**	**1.4**	**34 767**	**12 338**
4.	Comprehensive approach for credit risk mitigation for security financing transactions**				**5 686**	**1 711**
6.	**Total**	**12 432**	**12 402**		**40 453**	**14 049**

		As at 30 June 2020				
	R million	Replacement cost	Potential future exposure	Alpha used for computing regulatory EAD	EAD post CRM	RWA
1.	SA-CCR (for derivatives)*	11 594	17 029	1.4	40 073	13 827
4.	Comprehensive approach for credit risk mitigation for security financing transactions**				2 348	2 348
6.	**Total**	11 594	17 029		42 421	16 175

* *EEPE is not calculated under the SA-CCR (for derivatives).*

** *Replacement cost, potential future exposure, EEPE and alpha used for computing regulatory EAD are not calculated under the comprehensive approach for credit mitigation for security financing transactions.*

Replacement cost, potential future exposure, alpha used for computing regulatory EAD, EAD post-CRM and RWA are not inputs into the VaR model calculation for security financing transactions. Row 5 is therefore excluded from these tables.

The changes in counterparty exposure numbers year-on-year were attributable to methodology change from the standardised method for counterparty credit risk (SM-CCR) to SA-CCR. Some of the key drivers in the EAD change from SM-CCR to SA-CCR include the recognition of collateral in replacement cost and instrument maturity under SA-CCR, previously the risk factor was the same with or without collateral. Under SA-CCR there is generally less exposure and capital for negative mark-to-market (liabilities) and over-collateralised exposures, and more capital allocated for positive mark-to-market (assets). There are also standardised sensitivity approximations rather than being based on internally calculated market risk sensitivities. In addition to methodology changes, counterparty credit risk portfolio exposures decreased year-on-year because of market recoveries across the portfolio, particularly the local South African equities and the rand against major currencies, which resulted in decreased equity risk positions and mark-to-market on currency positions. The overall EAD reduction subsequently reduced the group's overall RWA and capital utilisation. The largest drivers by sector were securities firms, banks, public sector, and corporates.

The following table provides the EAD post CRM and RWA amounts for portfolios subject to the standardised CVA capital charge. As the group does not apply the advanced approach for CVA charge, rows 1 and 2 are excluded from CCR2. The decrease in CVA RWA was mainly driven by decreased exposure in currency transactions, interest rate swaps and contracts for difference largely against banks, corporates, securities firms, and public sector clients.

CCR2: CVA CAPITAL CHARGE

		As at 30 June 2021		As at 30 June 2020	
R million		**EAD post CRM**	**RWA***	EAD post CRM	RWA*
3.	All portfolios subject to the standardised CVA capital charge	**34 767**	**11 110**	40 073	17 422
4.	**Total subject to the CVA capital charge**	**34 767**	**11 110**	40 073	17 422

* *CVA RWA includes rest of Africa and foreign subsidiaries.*

CCR3: SA-CCR EXPOSURES BY REGULATORY PORTFOLIO AND RISK WEIGHTS*

	As at 30 June 2021					
	Risk weight**					
R million	**0%**	**20%**	**50%**	**100%**	**150%**	**Total credit exposure**
Asset classes#						
Sovereigns	**–**	**–**	**–**	**735**	**–**	**735**
Non-central government public sector entities	**–**	**–**	**7**	**–**	**–**	**7**
Banks	**2 550**	**4**	**–**	**10**	**116**	**2 681**
Corporates	**–**	**–**	**–**	**371**	**135**	**505**
Total	**2 550**	**4**	**7**	**1 116**	**251**	**3 928**

* *These exposures are for the subsidiaries in the rest of Africa and the bank's foreign branches.*

** *There were no exposures in the 10%, 35% and 75% risk weight buckets at 30 June 2021.*

There were no exposures in the multilateral development banks, securities firms, regulatory retail portfolios and other asset classes at 30 June 2021.

	As at 30 June 2020					
	Risk weight**					
R million	0%	20%	50%	100%	150%	Total credit exposure
Asset classes#						
Sovereigns	–	–	–	1 226	–	1 226
Banks	1 336	–	–	1	129	1 466
Securities firms	–	–	1	–	–	1
Corporates	1	1	32	438	142	614
Regulatory retail portfolios	–	–	–	–	5	5
Total	1 337	1	33	1 665	276	3 312

* *These exposures are for the subsidiaries in the rest of Africa and the bank's foreign branches.*

** *There were no exposures in the 0%, 10%, 35% and 75% risk weight buckets at 30 June 2020.*

There were no exposures in the non-central government public sector entities, multilateral development banks and other asset classes at 30 June 2020.

The following tables provide the counterparty credit risk exposures per portfolio and PD range where the AIRB approach is used for credit risk. They also include the main parameters used in the calculation of RWA. These exposures are for FRBSA, where the AIRB approach for credit risk is applied.

The information provided in the different columns is explained as follows:

- EAD post CRM, gross of accounting provisions;
- average PD is the obligor-grade PD weighted by EAD;
- average LGD is the obligor-grade LGD weighted by EAD;
- average maturity in years is obligor maturity weighted by EAD; and
- RWA density is total risk-weighted assets to EAD post CRM.

CCR4: AIRB – COUNTERPARTY CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE

	Total FRBSA						
	As at 30 June 2021						
PD scale	**EAD post CRM R million**	**Average PD %**	**Number of obligors**	**Average LGD %**	**Average maturity years**	**RWA R million**	**RWA density %**
0.00 to <0.15	**8 021**	**0.06**	**26**	**31.86**	**1.51**	**1 103**	**13.75**
0.15 to <0.25	**7 062**	**0.22**	**62**	**39.26**	**0.47**	**892**	**12.64**
0.25 to <0.50	**10 463**	**0.45**	**114**	**33.43**	**1.40**	**5 003**	**47.82**
0.50 to <0.75	**1 962**	**0.63**	**55**	**34.35**	**1.29**	**977**	**49.81**
0.75 to <2.50	**2 019**	**1.63**	**178**	**35.88**	**1.50**	**1 713**	**84.84**
2.50 to <10	**1 039**	**4.86**	**50**	**32.03**	**2.65**	**1 176**	**113.14**
10 to <100	**253**	**10.21**	**24**	**45.94**	**1.27**	**529**	**209.23**
100 (default)	**0.03**	**100.00**	**1**	**45.00**	**0.33**	**–**	**–**
Total	**30 819**		**512**			**11 394**	**26.77**

	Total FRBSA						
	As at 30 June 2020						
PD scale	EAD post CRM R million	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA R million	RWA density %
0.00 to <0.15	12 536	0.07	38	28.44	1.30	1 422	11.34
0.15 to <0.25	4 146	0.18	134	19.52	0.96	727	17.53
0.25 to <0.50	18 160	0.39	182	31.95	1.41	4 578	25.21
0.50 to <0.75	2 090	0.70	79	29.02	2.94	1 060	50.72
0.75 to <2.50	5 839	1.68	265	24.66	1.87	3 214	55.04
2.50 to <10	1 957	5.29	84	36.52	3.09	2 911	148.75
10 to <100	228	19.41	33	25.08	0.90	271	118.86
100 (default)	–	–	–	–	–	–	–
Total	44 956		815			14 183	31.55

The FRBSA movements were mainly driven by movements in securities, banks and corporates (refer to the subsections of CCR4 tables).

CCR4: AIRB – COUNTERPARTY CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Banks						
	As at 30 June 2021						
PD scale	**EAD post CRM R million**	**Average PD %**	**Number of obligors**	**Average LGD %**	**Average maturity years**	**RWA R million**	**RWA density %**
0.00 to <0.15	**4 355**	**0.07**	**20**	**33.58**	**1.46**	**757**	**17.39**
0.15 to <0.25	**599**	**0.17**	**6**	**35.91**	**1.20**	**178**	**29.68**
0.25 to <0.50	**919**	**0.46**	**17**	**29.72**	**1.50**	**464**	**50.48**
0.50 to <0.75	**0.12**	**0.74**	**1**	**25.00**	**0.04**	**0.04**	**30.67**
0.75 to <2.50	**10**	**1.00**	**4**	**43.38**	**2.27**	**9**	**92.17**
2.50 to <10	**12**	**4.90**	**7**	**52.13**	**1.07**	**19**	**162.30**
10 to <100	**67**	**10.36**	**7**	**54.93**	**0.76**	**151**	**225.36**
100 (default)	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Subtotal	**5 962**		**62**			**1 579**	**26.48**

	Banks						
	As at 31 June 2020						
PD scale	EAD post CRM R million	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA R million	RWA density %
0.00 to <0.15	7 002	0.07	28	26.48	1.43	903	12.90
0.15 to <0.25	1 003	0.16	7	36.72	1.55	333	33.20
0.25 to <0.50	2 340	0.45	17	29.41	1.37	1 128	48.21
0.50 to <0.75	–	–	–	–	–	–	–
0.75 to <2.50	462	1.16	3	39.88	1.03	339	73.38
2.50 to <10	140	4.93	5	44.57	1.05	193	137.86
10 to <100	24	15.55	8	38.77	1.00	41	170.83
100 (default)	–	–	–	–	–	–	–
Subtotal	10 971		68			2 937	26.77

The overall decrease in exposure and RWA of Banks asset class was mostly driven by the change to SA-CCR methodology as the group has collateral agreements with most bank clients, and these are recognised under the SA-CCR methodology. Reduced mark-to-market values year-on-year also contributed to the decrease in exposures and RWA.

CCR4: AIRB – COUNTERPARTY CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Corporate						
	As at 30 June 2021						
PD scale	**EAD post CRM R million**	**Average PD %**	**Number of obligors**	**Average LGD %**	**Average maturity years**	**RWA R million**	**RWA density %**
0.00 to <0.15	**1**	**0.09**	**1**	**30.00**	**1.00**	**0.11**	**11.79**
0.15 to <0.25	**571**	**0.22**	**9**	**32.47**	**1.01**	**144**	**25.16**
0.25 to <0.50	**1 644**	**0.42**	**37**	**34.04**	**1.68**	**812**	**49.26**
0.50 to <0.75	**289**	**0.71**	**7**	**31.93**	**0.85**	**130**	**44.89**
0.75 to <2.50	**712**	**1.43**	**92**	**32.25**	**1.01**	**450**	**63.20**
2.50 to <10	**163**	**4.67**	**45**	**37.25**	**1.20**	**190**	**116.51**
10 to <100	**99**	**10.11**	**8**	**40.43**	**1.96**	**193**	**194.88**
100 (default)	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Subtotal	**3 478**		**199**			**1 919**	**55.17**

	Corporate						
	As at 30 June 2020						
PD scale	EAD post CRM R million	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA R million	RWA density %
0.00 to <0.15	212	0.09	1	45.00	1.00	39	18.40
0.15 to <0.25	410	0.21	33	28.62	1.67	102	24.88
0.25 to <0.50	1 970	0.41	80	28.08	2.62	927	47.06
0.50 to <0.75	1 200	0.72	31	33.41	1.35	611	50.92
0.75 to <2.50	1 595	1.31	102	36.06	1.26	1 066	66.83
2.50 to <10	450	4.69	55	40.28	1.35	573	127.33
10 to <100	145	19.18	19	26.58	1.00	189	130.34
100 (default)	–	–	–	–	–	–	–
Subtotal	5 982		321			3 507	58.63

The decrease in exposure across PD bands was mainly driven by matured short-dated currency hedges and reduced trading activity against corporate clients.

CCR4: AIRB – COUNTERPARTY CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Sovereign						
	As at 30 June 2021						
PD scale	EAD post CRM R million	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA R million	RWA density %
0.00 to <0.15	–	–	–	–	–	–	–
0.15 to <0.25	0.1	0.17	1	45.00	0.73	0.3	35
0.25 to <0.50	360	0.48	1	5.00	0.42	19	5
0.50 to <0.75	4	0.60	3	45.00	0.79	2	58
0.75 to <2.50	–	–	–	–	–	–	–
2.50 to <10	–	–	–	–	–	–	–
10 to <100	–	–	–	–	–	–	–
100 (default)	–	–	–	–	–	–	–
Subtotal	364		5			21	5.74

	Sovereign						
	As at 30 June 2020						
PD scale	EAD post CRM R million	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA R million	RWA density %
0.00 to <0.15	–	–	–	–	–	–	–
0.15 to <0.25	3	0.17	4	11.75	0.38	–	–
0.25 to <0.50	–	–	–	–	–	–	–
0.50 to <0.75	10	0.60	1	5.00	0.10	1	10.00
0.75 to <2.50	–	–	–	–	–	–	–
2.50 to <10	–	–	–	–	–	–	–
10 to <100	–	–	–	–	–	–	–
100 (default)	–	0.26	–	10.28	–	–	–
Subtotal	13		5			1	7.69

The overall increase in EAD and RWA was driven by increased exposures against the SARB due to increased trading activity on currency transactions.

CCR4: AIRB – COUNTERPARTY CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Securities firms						
	As at 30 June 2021						
PD scale	**EAD post CRM R million**	**Average PD %**	**Number of obligors**	**Average LGD %**	**Average maturity years**	**RWA R million**	**RWA density %**
0.00 to <0.15	**3 665**	**0.06**	**29.83**	**29.83**	**1.57**	**345**	**9.43**
0.15 to <0.25	**5 836**	**0.22**	**40.42**	**40.42**	**0.34**	**560**	**9.60**
0.25 to <0.50	**5 564**	**0.47**	**39.95**	**39.95**	**0.70**	**2 960**	**48.37**
0.50 to <0.75	**1 375**	**0.60**	**37.69**	**37.69**	**1.01**	**713**	**51.87**
0.75 to <2.50	**561**	**1.62**	**53.57**	**53.57**	**0.85**	**758**	**135.04**
2.50 to <10	**59**	**4.50**	**33.87**	**33.87**	**1.40**	**65**	**111.14**
10 to <100	**80**	**10.07**	**44.99**	**44.99**	**0.60**	**169**	**209.80**
100 (default)	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Subtotal	**17 140**		**185**			**5 571**	**32.50**

	Securities firms						
	As at 30 June 2020						
PD scale	EAD post CRM R million	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA R million	RWA density %
0.00 to <0.15	5 270	0.07	8	30.32	1.13	468	8.88
0.15 to <0.25	2 710	0.18	88	11.90	0.64	291	10.74
0.25 to <0.50	10 170	0.37	60	38.22	0.56	1 384	13.61
0.50 to <0.75	360	0.74	33	20.41	0.76	148	41.08
0.75 to <2.50	2 421	2.04	136	13.44	0.98	814	33.62
2.50 to <10	212	4.83	19	37.10	8.30	325	153.30
10 to <100	35	29.32	5	6.06	0.39	12	34.29
100 (default)	–	–	–	–	–	–	–
Subtotal	21 178		349			3 442	16.25

The decrease in exposure across most PD bands reduced mark-to-market values in interest rate and cross currency swaps, and reduced risk on contract-for-difference positions. The increase in RWA was mainly driven by increased LGDs mostly against hedge fund clients and the change to the SA-CCR methodology.

CCR4: AIRB – COUNTERPARTY CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Public sector and local government						
	As at 30 June 2021						
PD scale	**EAD post CRM R million**	**Average PD %**	**Number of obligors**	**Average LGD %**	**Average maturity years**	**RWA R million**	**RWA density %**
0.00 to <0.15	**–**	**–**	**–**	**–**	**–**	**–**	**–**
0.15 to <0.25	**56**	**0.22**	**1**	**23.66**	**0.33**	**11**	**0.19**
0.25 to <0.50	**19**	**0.48**	**1**	**30.00**	**2.00**	**7**	**2.00**
0.50 to <0.75	**–**	**–**	**–**	**–**	**–**	**–**	**–**
0.75 to <2.50	**–**	**–**	**–**	**–**	**–**	**–**	**–**
2.50 to <10	**546**	**4.93**	**1**	**30.00**	**1.00**	**573**	**1.00**
10 to <100	**1**	**19.03**	**3**	**64.00**	**3.00**	**4**	**3.00**
100 (default)	**0.03**	**100.00**	**1**	**45.00**	**0.33**	**–**	**–**
Subtotal	**623**		**7**			**596**	**95.64**

	Public sector and local government						
	As at 30 June 2020						
PD scale	EAD post CRM R million	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA R million	RWA density %
0.00 to <0.15	–	–	–	–	–	–	–
0.15 to <0.25	20	0.17	2	5.76	0.40	1	5.00
0.25 to <0.50	110	0.47	5	33.56	1.14	44	40.00
0.50 to <0.75	–	–	–	–	–	–	–
0.75 to <2.50	0.48	–	1	35.00	1.45	0.69	–
2.50 to <10	670	4.93	1	30.00	2.63	714	106.57
10 to <100	24	10.07	1	30.00	1.00	29	120.83
100 (default)	–	–	–	–	–	–	–
Subtotal	824		10			788	95.63

The decrease in EAD and RWA was driven by matured interest and foreign exchange derivatives against certain counterparties as well as decreased mark-to-market values on interest rate and cross currency swap transactions.

CCR4: AIRB – COUNTERPARTY CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE continued

	Other						
	As at 30 June 2021						
PD scale	**EAD post CRM R million**	**Average PD %**	**Number of obligors**	**Average LGD %**	**Average maturity years**	**RWA R million**	**RWA density %**
0.00 to <0.15	–	–	–	–	–	–	–
0.15 to <0.25	–	–	–	–	–	–	–
0.25 to <0.50	**1 957**	**0.44**	**17**	**21.24**	**3.28**	**741**	**38**
0.50 to <0.75	**294**	**0.67**	**16**	**20.99**	**3.08**	**132**	**45**
0.75 to <2.50	**736**	**1.85**	**20**	**25.80**	**2.46**	**496**	**67**
2.50 to <10	**260**	**4.93**	**4**	**31.34**	**4.34**	**328**	**126**
10 to <100	**5**	**10.07**	**1**	**45.00**	**5.00**	**12**	**236**
100 (default)	–	–	–	–	–	–	–
Subtotal	**3 251**		**58**			**1 709**	**52.57**

	Other						
	As at 30 June 2020						
PD scale	EAD post CRM R million	Average PD %	Number of obligors	Average LGD %	Average maturity years	RWA R million	RWA density %
0.00 to <0.15	52	0.08	1	33.00	3.05	12	23.08
0.15 to <0.25	–	–	–	–	–	–	–
0.25 to <0.50	3 570	0.39	20	17.84	3.20	1 095	30.65
0.50 to <0.75	520	0.63	14	25.38	8.26	300	57.69
0.75 to <2.50	1 361	1.62	23	27.48	4.36	995	73.11
2.50 to <10	485	6.63	4	39.44	3.66	1 106	228.04
10 to <100	–	–	–	–	–	–	–
100 (default)	–	–	–	–	–	–	–
Subtotal	5 988		62			3 508	58.58

The reduction in EAD and RWA across the bands was driven by reduced exposures against income-producing real estate and project finance clients driven by maturities and reduced mark-to-market values.

The following tables provide the composition of collateral for counterparty credit risk exposures per category for collateral used in derivative transactions, split between fair value of collateral received and posted collateral. “Segregated” refers to collateral which is held in a bankruptcy-remote manner and “unsegregated” to collateral not held in a bankruptcy-remote manner. Many security finance transactions (SFTs) are short-dated in nature.

CCR5: COMPOSITION OF COLLATERAL FOR COUNTERPARTY CREDIT RISK EXPOSURE PER COLLATERAL CATEGORY*

	As at 30 June 2021					
	Collateral used in derivative transactions				Collateral used in security finance transactions	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
R million	Segregated	Unsegregated	Segregated	Unsegregated		
Cash – domestic currency	**9 264**	**3 061**	**–**	**8 951**	**–**	**–**
Cash – other currencies	**–**	**2 800**	**–**	**3 509**	**–**	**–**
Domestic sovereign debt	**–**	**1 707**	**–**	**192**	**67 165**	**30 986**
Other sovereign debt	**–**	**–**	**–**	**–**	**652**	**1 855**
Government agency debt	**–**	**–**	**–**	**–**	**208**	**–**
Corporate bonds	**–**	**–**	**–**	**–**	**173**	**100**
Total	**9 264**	**7 568**	**–**	**12 652**	**68 198**	**32 941**

* *There was no collateral in the equity securities and other collateral categories during the year.*

	As at 30 June 2020					
	Collateral used in derivative transactions				Collateral used in security finance transactions	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
R million	Segregated	Unsegregated	Segregated	Unsegregated		
Cash – domestic currency	11 295	477	–	73	–	–
Cash – other currencies	–	8 819	–	22 940	–	–
Domestic sovereign debt	–	3	–	–	33 759	37 109
Other sovereign debt	–	–	–	–	98	98
Government agency debt	–	–	–	–	246	–
Corporate bonds	–	–	–	–	160	–
Other collateral	–	3 494	–	–	253	–
Total	11 295	12 793	–	23 013	34 516	37 207

* *There was no collateral in the equity securities and other collateral categories during the year.*

The increase in collateral used in security finance transactions was driven by an increase in sovereign debt issued during the year.

The group employs credit derivatives primarily for the purposes of protecting its own positions and for hedging its credit portfolio, as indicated in the following tables.

CCR6: CREDIT DERIVATIVES

R million	**As at 30 June 2021**		As at 30 June 2020	
	Protection bought	**Protection sold**	Protection bought	Protection sold
Notionals*				
– Single-name credit default swaps	**12 923**	**5 510**	13 426	6 950
Total notionals	**12 923**	**5 510**	13 426	6 950
Fair values	**(44)**	**42**	17	(288)
– Positive fair value (asset)	**6**	**84**	61	87
– Negative fair value (liability)	**(50)**	**(42)**	(44)	(375)

* *There were no credit derivatives in the index credit default swaps, total return swaps, credit options and other credit derivative categories during the year.*

The template *CCR7: RWA flow statements of CCR exposures under the internal model method* is not applicable as the group does not use the internal model method for measuring EAD of counterparty credit risk EAD.

The group's exposure to central counterparties (central clearing houses) and related RWA is provided below.

CCR8: EXPOSURES TO CENTRAL COUNTERPARTIES

R million	**As at 30 June 2021**		As at 30 June 2020	
	EAD post CRM	**RWA**	EAD post CRM	RWA
2. Exposures for trade at qualifying central counterparties (excluding initial margin and default fund contributions); of which:	**6 044**	**182**	8 449	169
3. – OTC derivatives	**1 936**	**39**	1 194	24
4. – Exchange-traded derivatives	**4 108**	**143**	7 255	145
5. – Securities financing transactions	**–**	**–**	–	–
6. – Netting sets where cross-product netting has been approved	**–**	**–**	–	–
7. Segregated initial margin*	**9 264**		11 289	
8. Non-segregated initial margin	**–**	**–**	–	–
9. Pre-funded default fund contributions	**339**	**48**	371	32
10. Unfunded default fund contributions	**–**	**–**	–	–
1. **Total exposures to qualifying central counterparties****	**15 647**	**230**	20 109	201

* *RWA is not determined on segregation initial margin.*

** *There were no exposures to non-qualifying central counterparties (rows 11 – 20 of the CCR8 template) for the year.*

SECURITISATIONS

Introduction and objectives

Securitisation is the process whereby assets (such as illiquid loans and other receivables) are packaged, underwritten and sold in the form of asset-backed securities to investors.

Securitisation enables the group to access funding markets at ratings that are typically higher than its own corporate credit rating. This generally provides access to broader funding sources at more favourable rates. The removal of the assets and supporting funding from the balance sheet enables the group to reduce the cost of financing and to manage potential asset-liability mismatches and credit concentrations.

EXPOSURES INTENDED TO BE SECURITISED OR RESECURITISED IN THE FUTURE

FirstRand uses securitisation assets as a funding tool. The ability to securitise assets depends on the availability of eligible assets, investor appetite for securitisation paper and the availability of alternative funding sources. All assets on the group's balance sheet are viewed as available for securitisation within market constraints. The group follows the appropriate internal and external approval processes (where required) for any proposed transactions.

RESECURITISATION

A resecuritisation exposure is a securitisation exposure where the risk associated with an underlying pool of exposures is tranched and at least one of the underlying exposures is itself a securitisation exposure.

The group's asset-backed commercial paper SPVs occasionally acquire securitisation paper, which is managed as part of the underlying portfolio. This, however, represents a minimal portion of the total portfolio and is disclosed as a resecuritisation exposure for regulatory capital purposes.

Organisational structure and governance

THE GROUP'S ROLE IN SECURITISATION AND CONDUIT STRUCTURES

Transaction	Originator	Sponsor	Servicer	Investor	Liquidity provider	Credit enhancement provider	Swap counterparty
Own securitisations							
Nitro 6	✓	✓	✓				✓
Nitro 7	✓	✓	✓				✓
FAST Issuer	✓	✓	✓	✓			✓
Turbo Finance 8	✓	✓	✓	✓			
MotoPark	✓	✓	✓	✓			
MotoFirst	✓	✓	✓	✓			
MotoWay	✓	✓	✓	✓			
Oak 2	✓	✓	✓	✓			
Oak 3	✓	✓	✓	✓			
MotoMore	✓	✓	✓	✓			
Turbo Finance 9	✓	✓	✓	✓			
Other SPVs							
iVuzi*		✓	✓		✓	✓	✓
iNkotha**			✓				
iNguza**			✓				
Third party							
Velocity Finance Issuer Trust				✓			✓
Velocity Finance (RF) Limited				✓			✓
Clover Capital				✓			

* *Other SPVs incorporated under regulations relating to securitisation scheme.*

** *Other SPVs incorporated under regulations relating to commercial paper.*

The ultimate responsibility for determining risk appetite and thus risk limits for the group vests in the board. The RCCC is responsible for independent oversight and monitoring. RCCC has delegated this responsibility for securitisation exposures to group ALCCO. Group ALCCO also maintains responsibility on behalf of the board for the allocation of sublimits and any remedial action in the event of limit breaches. The FirstRand wholesale credit committee approves credit limits for retained securitisation exposures per SPV.

Assessment and management

OVERSIGHT AND RISK MITIGATION

The group's role in securitisation transactions, for group-originated and group-sponsored transactions as well as third-party securitisations, results in various financial and operational risks, including:

- compliance risk;
- credit risk;
- currency risk;
- interest rate risk;
- liquidity and funding risk;
- operational risk; and
- reputational risk.

For securitisations originated by the group, exposures are managed from a credit perspective by the originating business unit as if the securitisation had never occurred. Resultant risks from retained exposures and the overall origination and maintenance of securitisation structures are covered as part of the day-to-day management of the various risk types. This includes risk mitigation and management actions, depending on risk limits and appetite per risk area. Securitisation performance is monitored on an ongoing basis and reported to management and governance forums.

Governance and management processes in place to monitor securitisation-related risks include:

- Rigorous internal approval processes for proposed securitisations – transactions are reviewed by Group ALCCO and RCCC against approved limits.
- Changes to retained exposures (as a result of ratings changes, reviews, note redemptions and credit losses) are reflected in the monthly BA 500 regulatory return for FRBSA and the quarterly BA 600 for other entities.
- Transaction investor reports, alignment with SPV financial reporting and the impact of underlying asset performance are reflected on the semi-annual BA 501 regulatory return.

The group does not employ credit risk mitigation techniques to hedge credit risk on retained securitisation tranches.

SUMMARY OF ACCOUNTING POLICIES FOR SECURITISATION ACTIVITIES

From an accounting perspective, traditional securitisations are treated as sales transactions. At inception, the assets are sold to an SPV at fair market value and no gains or losses are recognised. For synthetic securitisations, credit derivatives used in the transaction are recognised at fair value, with any fair value adjustments reported in profit or loss.

Securitisation entities are consolidated into FRIHL, FRI and FRB for financial reporting purposes. Any retained notes are accounted for as investment securities in the banking book. Liabilities resulting from securitisation vehicles are accounted for in line with group accounting policies for liabilities, provisions and contingent liabilities.

Year under review

FAST ISSUER
The FAST class B notes were increased from R1.508 billion to R1.967 billion on 24 August 2020, which increased the credit enhancement of the class A notes from 18% to 22%. This increase was due to the strain of the Covid-19 pandemic on the underlying portfolio and the sovereign, as well as subsequent FRB credit rating downgrades by various rating agencies. The proceeds of the class B note were used to purchase an additional R459 million of WesBank instalment sale agreements.

MOTOPARK
This transaction is being run down. The underlying assets reduced from £307 million as at 30 June 2020 to £129 million as at 30 June 2021. The underlying loans will amortise more quickly as they reach the end of the term.

TURBO FINANCE 9
Turbo Finance 9 was the first VAF securitisation transaction executed by Aldermore. It closed on 8 October 2020. The total pool balance was £584 million, with a revolving period of nine months. Class A through to F and X notes were issued. Class A and B notes were sold externally with FRB London branch purchasing £50 million of class A notes. Class C to F and X notes were retained by the Aldemore Group.

VELOCITY FINANCE
There were only two issuances made in the year under year review, the first in September 2020 for R3.4 billion and the other in January 2021 for R3 billion.

EXTERNAL CREDIT ASSESSMENT INSTITUTIONS

The group employs eligible ratings issued by nominated external credit assessment institutions (ECAIs) to risk weight its securitisation and resecuritisation exposures where their use is permitted. The ECAIs nominated by the group for this purpose are Global Credit Ratings (GCR), Moody's, S&P, Fitch and DBRS Ratings Limited (DBRS). The following tables show the traditional securitisations currently in issue and the rating distribution of all retained exposures. Global scale ratings are used for internal risk management purposes and regulatory capital reporting.

TRADITIONAL SECURITISATIONS TRANSACTIONS*

*Traditional securitisations***	**Asset type**	**Rating agency**	**Year initiated**	**Expected close**
Nitro 6	Retail: auto loans	GCR	2018	2025
Nitro 7	Retail: auto loans	Moody's	2019	2027
FAST Issuer	Retail: auto loans	Unrated	2016	2025
Turbo Finance 8	Retail: auto loans	S&P and Moody's	2018	2026
MotoPark	Retail: auto loans	DBRS Ratings Limited and S&P	2018	2025
MotoFirst	Retail: auto loans	Unrated	2017	2026
MotoWay	Retail: auto loans	Unrated	2019	2023

		Assets outstanding#		**Notes outstanding**		**Retained exposure**	
R million	**Assets securitised**	**June 2021**	June 2020	**June 2021**	June 2020	**June 2021**	June 2020
Nitro 6	296	**379**	745	**304**	676	**–**	–
Nitro 7	776	**861**	1 391	**806**	1 358	**–**	–
FAST Issuer†	8 387	**9 883**	10 727	**9 139**	10 243	**1 988**	1 527
Turbo Finance 8†	1 133	**1 283**	3 660	**1 268**	3 431	**158**	203
MotoPark†	2 552	**2 919**	7 555	**2 580**	6 862	**2 580**	6 889
MotoFirst†	4 344	**4 821**	11 766	**3 123**	9 700	**1 069**	1 059
MotoWay†	4 855	**5 351**	12 622	**5 302**	11 992	**1 758**	1 918
Total	22 343	**25 497**	48 466	**22 522**	44 262	**7 552**	11 596

* *Include transactions structured by the group and exclude third-party and conduit transactions.*

** *Aldermore's Oak, MotoMore and Turbo Finance 9 securitisations have not derecognised assets in terms of the securitisation framework and therefore remain on-balance sheet.*

Assets outstanding do not include cash reserves.

† *Non-rand denominated.*

SECURITISATION EXPOSURES IN THE BANKING BOOK

The following tables provide a breakdown of the group's traditional securitisation exposures in the banking book for the retail and corporate portfolios where the group acts as originator, sponsor or investor, or originator and sponsor.

SEC1: SECURITISATION EXPOSURES IN THE BANKING BOOK PER PORTFOLIO*, **

		As at 30 June 2021				
		Traditional securitisations				
R million		**Group acts as originator**	**Group acts as sponsor**	**Group acts as investor**	**Group acts as originator and sponsor**	**Total**
1.	**Retail**					
4.	– Auto loans	**7 552**	**–**	**25 363**	**–**	**32 915**
6.	**Corporate**					
7.	– Loans to corporates	**–**	**–**	**–**	**5 676**	**5 676**
Total		**7 552**	**–**	**25 363**	**5 676**	**38 591**

		As at 30 June 2020				
		Traditional securitisations				
R million		Group acts as originator	Group acts as sponsor	Group acts as investor	Group acts as originator and sponsor	Total
1.	**Retail**					
4.	– Auto loans	11 596	–	26 419	–	38 015
6.	**Corporate**					
7.	– Loans to corporates	–	–	–	3 831	3 831
Total		11 596	–	26 419	3 831	41 846

* *There were no residential mortgage, credit card or resecuritisation exposures in the retail portfolio (rows 2, 3 and 5 of the SEC1 template) and no commercial mortgage, lease and receivables, other corporate or resecuritisation exposures in the corporate portfolio (rows 8 – 11 of the SEC1 template).*
** *Includes retained exposure for all transactions structured by the group, third party and conduit transactions.*

The regulatory approaches for securitisation exposures in the following tables are explained below.

Internal ratings-based (IRB) approach	**Ratings-based approach** Securitisation exposures to notes rated by an ECAI and held in an entity that uses the IRB approach.
	Internal assessment approach (IAA) The group does not use IAA for calculating risk weighted assets on securitisation exposures.
	Supervisory formula approach (SFA) Where SFA is used, these exposures are captured in the IRB SFA column.
Standardised approach	Exposures subject to the look-through approach are disclosed in the simplified supervisory approach (SSFA).
Unrated notes	Exposures to unrated notes are risk weighted at 1 250%.

There were no synthetic securitisations during the year under review.

SEC3: TRADITIONAL SECURITISATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED REGULATORY CAPITAL REQUIREMENTS – BANK ACTING AS ORIGINATOR OR AS SPONSOR

		As at 30 June 2021*								
		Exposure values by risk-weighted (RW) bands					Exposure values by regulatory approach			
							IRB		SA	
	R million	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1 250% RW	1 250% RW	RBA	SFA	SSFA	1 250%
	Securitisation									
4.	– Retail	**1 988**	**1 863**	**2 182**	**–**	**1 520**	**–**	**1 988**	**4 045**	**1 520**
5.	– Corporate	**–**	**5 676**	**–**	**–**	**–**	**–**	**–**	**5 676**	**–**
Total		**1 988**	**7 539**	**2 182**	**–**	**1 520**	**–**	**1 988**	**9 721**	**1 520**

* *There were no resecuritisations or synthetic securitisations (rows 6 – 15 of the SEC3 template) during the year under review.*

** *Capital requirement calculated at 12.0% of RWA. The minimum requirement excludes the Pillar 2B capital requirement. The difference to the BCBS base minimum (8%) relates to the buffer add-ons for Pillar 2A, CCyB, capital conservation and the D-SIB as prescribed in the Regulations. The Pillar 2A and CCyB requirements were 0% at 30 June 2021.*

		As at 30 June 2020*								
		Exposure values by RW bands					Exposure values by regulatory approach			
							IRB		SA	
	R million	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1 250% RW	1 250% RW	RBA	SFA	SSFA	1 250%
	Securitisation									
4.	– Retail	1 527	6 084	2 378	–	1 607	–	1 527	8 462	1 607
5.	– Corporate	–	3 831	–	–	–	–	–	3 831	–
Total		1 527	9 915	2 378	–	1 607	–	1 527	12 293	1 607

* *There were no resecuritisations or synthetic securitisations (rows 6 – 15 of the SEC3 template) in 2020.*

** *Capital requirement calculated at 10.5% of RWA. The minimum requirement excludes the Pillar 2B capital requirement. The difference to the BCBS base minimum (8%) relates to the buffer add-ons for Pillar 2A, CCyB, capital conservation and the D-SIB as prescribed in the Regulations. The Pillar 2A and CCyB requirements were 0% at 30 June 2020.*

	As at 30 June 2021							
	RWA by regulatory approach				**Minimum capital requirements****			
	IRB		**SA**		**IRB**		**SA**	
	RBA	**SFA**	**SSFA**	**1 250%**	**RBA**	**SFA**	**SSFA**	**1 250%**
	–	**147**	**3 113**	**18 999**	**–**	**18**	**374**	**2 280**
	–	**–**	**2 162**	**–**	**–**	**–**	**259**	**–**
	–	**147**	**5 275**	**18 999**	**–**	**18**	**633**	**2 280**

	As at 30 June 2020							
	RWA by regulatory approach				Minimum capital requirements**			
	IRB		SA		IRB		SA	
	RBA	SFA	SSFA	1 250%	RBA	SFA	SSFA	1 250%
	–	113	5 420	20 094	–	12	569	2 110
	–	–	1 553	–	–	–	163	–
	–	113	6 973	20 094	–	12	732	2 110

SEC4: TRADITIONAL SECURITISATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS – BANK ACTING AS INVESTOR

		As at 30 June 2021*						
		Exposure values by RW bands**	Exposure values by regulatory approach#		RWA by regulatory approach		Minimum capital requirements†	
		≤20% RW	IRB		IRB		IRB	
R million			RBA	SFA	RBA	SFA	RBA	SFA
	Securitisation							
4.	– Retail	**25 363**	**–**	**25 363**	**–**	**1 882**	**–**	**226**
5.	– Corporate	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Total		**25 363**	**–**	**25 363**	**–**	**1 882**	**–**	**226**

* *There were no resecuritisations or synthetic securitisations (rows 6 – 15 of the SEC4 template) during the year under review.*

** *There were no exposures in the >20% to 50%, >50% to 100%, >100% to <1 250% and 1 250% RW bands.*

\# *There were no exposures under the standardised approach or to unrated notes risk-weighted at 1 250%.*

† *Capital requirement calculated at 12.0% of RWA. The minimum requirement excludes the Pillar 2B capital requirement. The difference to the BCBS base minimum (8%) relates to the buffer add-ons for Pillar 2A, CCyB, capital conservation and the D-SIB as prescribed in the Regulations. The Pillar 2A and CCyB requirements were 0% at 30 June 2021.*

		As at 30 June 2020*						
		Exposure values by RW bands**	Exposure values by regulatory approach#		RWA by regulatory approach		Minimum capital requirements†	
		≤20% RW	IRB		IRB		IRB	
R million			RBA	SFA	RBA	SFA	RBA	SFA
	Securitisation							
4.	– Retail	26 419	–	26 419	–	1 960	–	206
5.	– Corporate	–	–	–	–	–	–	–
Total		26 419	–	26 419	–	1 960	–	206

* *There were no resecuritisations or synthetic securitisations (rows 6 – 15 of the SEC4 template) in 2020.*

** *There were no exposures in the >20% to 50%, >50% to 100%, >100% to <1 250% and 1 250% RW bands.*

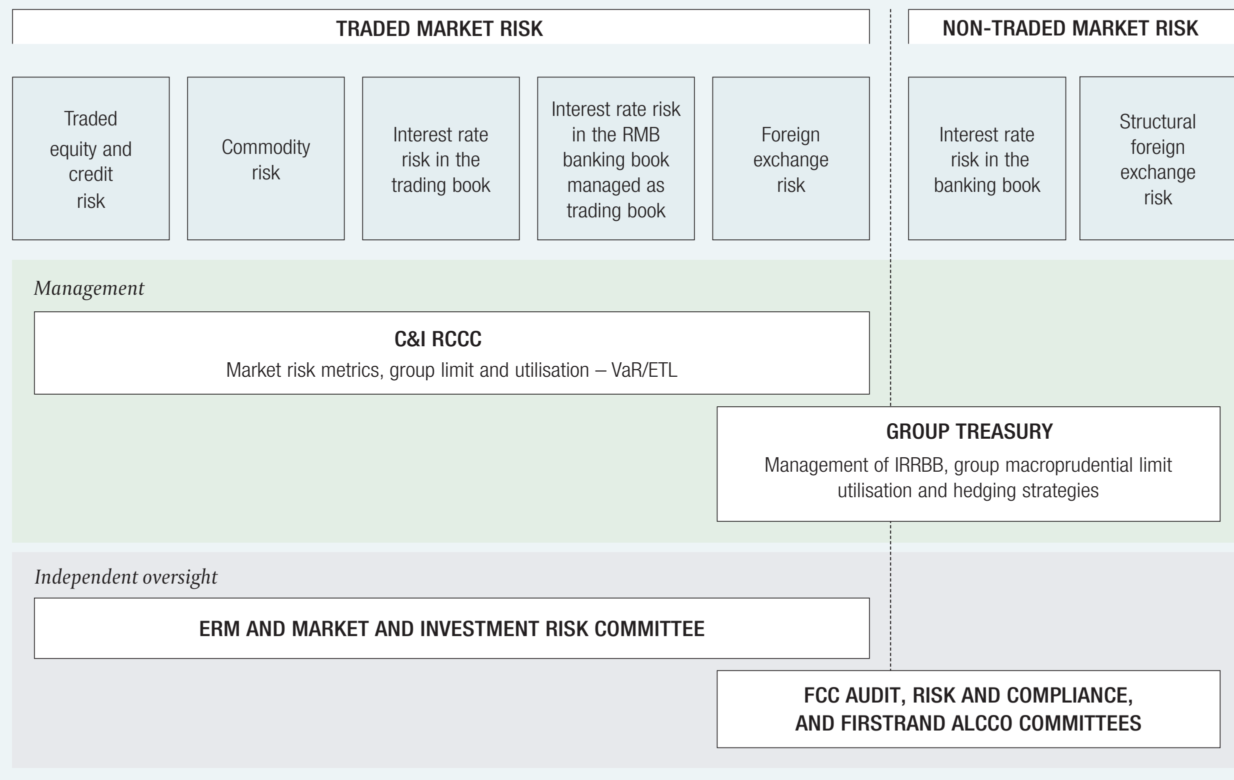
\# *There were no exposures under the standardised approach or to unrated notes risk weighted at 1 250%.*

† *Capital requirement calculated at 10.5% of RWA. The minimum requirement excludes the Pillar 2B capital requirement. The difference to the BCBS base minimum (8%) relates to the buffer add-ons for Pillar 2A, CCyB, capital conservation and the D-SIB as prescribed in the Regulations. The Pillar 2A and CCyB requirements were 0% at 30 June 2020.*

MARKET RISK

The group distinguishes between **traded market risk and non-traded market risk**. The following diagram describes the traded and non-traded market risks and the governance bodies responsible for managing these risks.

TRADED AND NON-TRADED MARKET RISK ELEMENTS



TRADED MARKET RISK

Introduction and objectives

Traded market risk is the risk of adverse revaluation of any financial instrument as a consequence of changes in market risk prices or rates.

The group's market risk in the trading book emanates mainly from the provision of hedging solutions for clients, market-making activities and term-lending products, and is taken and managed by RMB. The relevant business units in RMB function as the centres of expertise for all market risk-related activities. Market risk is managed and contained within the group's appetite.

The group's objective is to manage and control market risk exposures, based on three pillars, each with its own objective:

> **business mix** – ensure that RMB's current and future strategies, spanning various activities and geographies, achieve their growth and return targets within acceptable levels of risk;

> **financial performance** – optimise portfolio performance and manage the interplay between growth and ROE given the differentiated risk/return characteristics of various activities; and

> **risk and capital impact** – only accept an appropriate level of risk commensurate with performance objectives and market opportunity.

The nature of hedging and risk mitigation strategies performed across the group corresponds to the market risk management instruments available in each operating jurisdiction. These strategies range from the use of traditional market instruments, such as interest rate swaps, to more sophisticated hedging strategies to address a combination of risk factors arising at portfolio level.

The group uses global and industry-accepted models and operating platforms to measure market risk. These operating platforms support regulatory reporting, external disclosure and internal management reporting for market risk. The risk infrastructure incorporates the relevant legal entities and business units, and provides the basis for reporting on risk positions, capital adequacy and limit utilisation to the relevant governance and management forums on a regular and *ad hoc* basis. Established units in risk management functions assume responsibility for measurement, analysis and reporting of risk while promoting sufficient quality and integrity of risk-related data. The VaR and sVaR calculations and aggregations are performed daily by these operating platforms and risk measures are compared to limits. Breaches are escalated to senior management.

INTEREST RATE RISK IN THE BANKING BOOK ACTIVITIES UNDER THE MARKET RISK FRAMEWORK

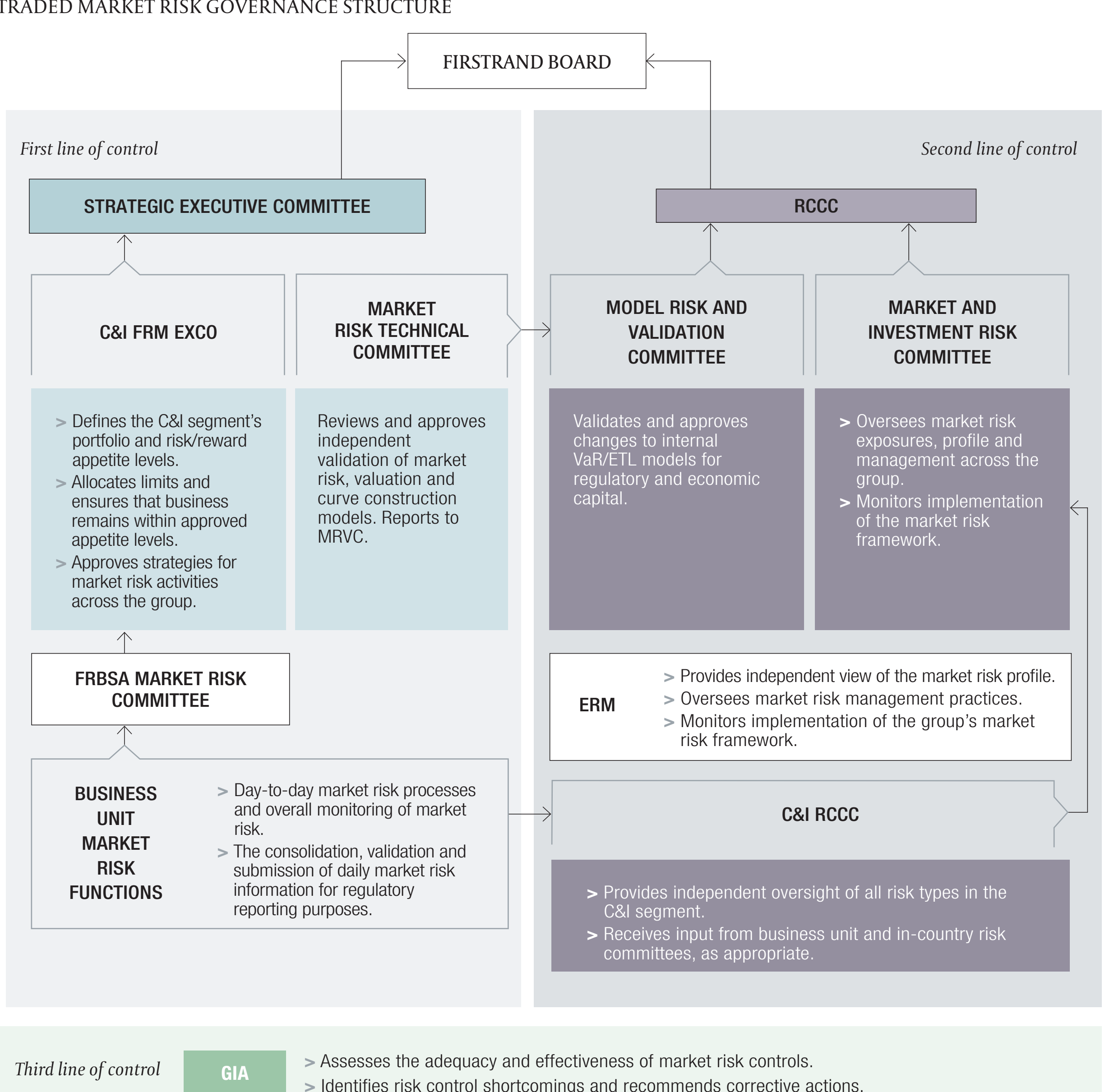
Management and monitoring of interest rate risk in the banking book are split between the RMB banking book and the remaining domestic banking book, (which is covered in the *Interest rate risk in the banking book* section). RMB manages the majority of its banking book under the market risk framework, with risk measured and monitored in conjunction with the trading book and management oversight provided by the FirstRand market and investment risk committee (MIRC). The RMB banking book interest rate risk exposure was R59 million on a 10-day ETL basis at 30 June 2021 (2020: R136 million).

YEAR UNDER REVIEW AND FOCUS AREAS

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> The pandemic led to market uncertainty which translated into low liquidity and large price movements. News regarding Covid-19 resurgence and developments in vaccine production, approval and distribution contributed to general market volatility. > Although news of vaccine rollout programmes brought a wave of optimism as this meant the reopening of economies globally, inflationary fears prevail. > The group successfully implemented the requirements of BCBS 239 relating to market risk and embedding compliance.	> Workstreams on the implementation of the Fundamental review of the trading book remain on track. Testing of the solution for FRBSA in Murex continues and is expected to be implemented in the 2022 financial year. > The group has quantified the exposure to London interbank offer rate (LIBOR) related instruments for the transitioning into risk free rates. The project is in progress and on track to meet the December 2021 deadline. > Continue to implement the uncleared margin regulatory requirements.

Organisational structure and governance

TRADED MARKET RISK GOVERNANCE STRUCTURE



MARKET RISK REPORTING

High-quality risk reporting enables senior management and governance committees to make well-considered decisions to achieve objectives and manage key risks. The group regularly reviews market risk reports to ensure their relevance and that reporting adequately and accurately reflects the group's market risk profile. Market risk reporting follows the market risk governance structure on the previous page. The frequency of each report aligns with the timing of governance committee meetings and content is driven by information requirements of the target audience.

Market risk reports are provided to the C&I FRM executive committee, the C&I RCCC and MIRC on a quarterly basis. Daily and monthly reports on market risk movements, risk factors and limit utilisation are provided to senior management and executive committees, as appropriate. Information in market risk reports includes, but is not limited to:

> ETL/VaR and sVaR, and specific risks;
> utilisation of the above against predefined limits;
> concentrations and risk build-ups;
> governance issues, such as limit breaches;
> risk factor sensitivities, stress test results and earnings volatility;
> nominal exposures;
> profit and loss attribution;
> risk and profit trends;
> internal model backtesting results;
> model risk; and
> *ad hoc* reporting to MIRC during stress periods and specific events outside of the normal governance cycle.

Model risk reports on counterparty credit and market risk, valuation and curve construction models, as well as on the independent validation of models, are provided to the FirstRand model risk and validation committee and the C&I RCCC on a quarterly basis. Information in model risk reports includes, but is not limited to, an overview of activities of the market risk technical committee, approval of independently validated models, model risk classifications, and material issues and corrective actions.

Internal models approach: domestic trading portfolios

The group uses the internal models approach (IMA) for its domestic trading units – the internal VaR model for general market risk was approved by the PA for domestic trading units. For all other entities, the standardised approach is used for regulatory market risk capital purposes. Economic capital for market risk is calculated using liquidity-adjusted ETL plus an assessment of specific risk.

The risk related to market risk-taking activities is measured as the higher of the group's internal ETL measure (as a proxy for economic capital) and regulatory capital based on VaR plus sVaR. The 10-day holding period used in calculation of a 10-day VaR, 10-day sVaR and ETL is directly modelled on the group's operating platform.

Market risk in the trading book is taken and managed by RMB using risk limits approved by the C&I FRM executive committee and MIRC. ETL/VaR limits are set for portfolios and risk types, with market liquidity being a primary factor in determining the level of limits set. Market risk limits are governed according to the market risk framework. The ETL/VaR model is designed to take into account a comprehensive set of risk factors across all asset classes.

VaR enables the group to apply a consistent measure across all trading desks and products. It allows a comparison of risk in different businesses, and provides a means of aggregating and netting positions in a portfolio to reflect correlations and offsets between different asset classes. Furthermore, it facilitates comparisons of market risk both over time and against daily trading results.

QUANTIFICATION OF RISK EXPOSURES

ETL	The internal measure of risk is an ETL metric at the 99% confidence level under the full revaluation methodology using historical risk factor scenarios (historical simulation method). In order to accommodate the regulatory stress loss imperative, the set of scenarios used for revaluation of the current portfolio comprises historical scenarios which incorporate both the past 260 trading days and at least one static period of market distress (2008/2009). The stress period is periodically reviewed for suitability. The ETL is liquidity adjusted for illiquid exposures. Holding periods, ranging between 10 and 90 days or more, are used in the calculation and are based on an assessment of distressed liquidity of portfolios.

VaR and sVaR	VaR is calculated at the 99%, 10-day actual holding period level using data from the past 260 trading days. For regulatory capital purposes, this is supplemented with an sVaR, calibrated to a one-year period of stress observed in history (2008/2009). The choice of period 2008/2009 is based on the assessment of the most volatile period in recent history and is reviewed for suitability. sVaR calculations are based on the same systems, trade information and processes as VaR calculations. The only difference is that sVaR is supplemented with historical risk factor scenarios (historical simulation method) as an input for the full revaluation methodology. The historical factor scenarios include historical market data from a period of significant financial stress, characterised by high volatilities in recent history. When simulating potential movements in risk factors, both absolute and relative risk factors are used. VaR calculations over a holding period of one day are used as an additional tool in the assessment of market risk. The updating of historical scenarios is kept within the one-month regulatory requirement and is monitored on a daily basis.

The group's VaR is subject to the limitations of this methodology, namely:

> historical simulation VaR may not provide an accurate estimate of future market movements;
> the use of a 99% confidence level does not reflect the extent of potential losses beyond that percentile – ETL is a better measure to quantify losses beyond that percentile (but still subject to similar limitations as stated for VaR);
> the use of a one-day time horizon is not a fair reflection of profit or loss for positions with low trading liquidity which cannot be closed out or hedged in one day;

> as exposures and risk factors can change during daily trading, exposures and risk factors are not necessarily captured in the VaR calibration which uses end-of-day trading data; and

> where historical data is not available, time series data is approximated or backfilled using appropriate quantitative methodologies. Use of proxies is, however, limited.

These limitations mean that the group cannot guarantee that losses will not exceed VaR. Recognising its limitations, VaR is supplemented with stress testing to evaluate the potential impact on portfolio values of more extreme, though plausible, events or movements in a set of financial variables.

The group does not apply the incremental risk charge or comprehensive risk capital charge approach.

RISK CONCENTRATIONS

Risk concentrations are controlled by means of appropriate ETL sublimits for individual asset classes and the maximum allowable exposure for each business unit. In addition to the general market risk limits described above, limits covering obligor-specific risk and event risk utilisation against these limits are monitored continually, based on the regulatory building block approach.

RWA FLOW STATEMENT FOR IMA MARKET RISK EXPOSURES

Regulatory capital for domestic trading units is based on the internal VaR model supplemented with sVaR. VaR is calculated at the 99%, 10-day actual holding period level using data from the past 260 trading days. sVaR is calculated using a predefined static stress period (2008/2009). VaR calculations over a holding period of one day are used as an additional tool in the assessment of market risk.

The group's subsidiaries in the rest of Africa and the bank's foreign branches are measured using the regulatory standardised approach for regulatory capital and an internal stress loss methodology for internal measurement of risk. Capital is calculated for general and specific market risk using the Basel III standardised duration methodology.

The following flow statement explains the variations in the market risk RWA determined under IMA.

MR2: RWA FLOW STATEMENTS OF MARKET RISK EXPOSURES UNDER IMA*

	R million	VaR	sVaR	Total RWA
1.	**RWA at 31 March 2021**	11 654	7 713	19 367
2.	Movement in risk levels	(1 429)	(463)	(1 892)
3.	Model updates/changes	–	–	–
4.	Methodology and policy	–	–	–
5.	Acquisitions and disposals	–	–	–
6.	Foreign exchange movements	–	–	–
7.	Other	–	–	–
8.	**RWA at 30 June 2021**	10 225	7 250	17 475

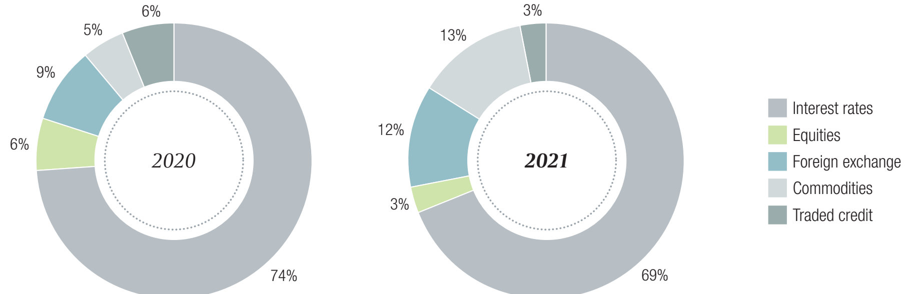
* *The group does not use the incremental risk charge and comprehensive risk measure approaches.*

The decrease in total RWA during the quarter was driven by reduced market risk activity in the nominal and real interest rate space.

VaR EXPOSURE PER ASSET CLASS

The following chart shows the distribution of exposures per asset class across the group's trading activities at 30 June 2021 based on the VaR methodology. Interest rate risk represented the most significant exposure at 30 June 2021 with foreign exchange and equity risk being the next largest contributors. Exposure to the interest rate asset class decreased due to reduced market risk activity in the nominal and real interest rate space in the last quarter of the year. Exposure to commodities and foreign exchange asset classes increased due to market volatility.

Traded market risk VaR exposure per asset class for the group excluding subsidiaries in the rest of Africa (excluding diversification effects across jurisdictions)



IMA VALUES

The group does not use the incremental risk charge (rows 9 – 12 of the MR3 template) and comprehensive risk measure (rows 13 – 17 of the MR3 template) approaches.

MR3: IMA VALUES FOR TRADED MARKET RISK

		FRBSA						
		As at 30 June 2021						
	R million	**Equities**	**Interest rates**	**Foreign exchange**	**Commodities**	**Traded credit**	**Diversification effect**	**Diversified total**
	VaR (10-day 99%)							
1.	Maximum value	**162.3**	**554.2**	**80.9**	**65.8**	**47.2**		**374.4**
2.	Average value	**38.0**	**266.9**	**35.3**	**41.0**	**17.8**		**242.2**
3.	Minimum value	**3.2**	**110.7**	**5.9**	**16.4**	**4.9**		**140.2**
4.	Period end	**12.5**	**193.3**	**40.6**	**41.8**	**6.4**	**(92.4)**	**202.2**
	sVaR (10-day 99%)							
5.	Maximum value	**91.8**	**415.9**	**131.1**	**60.7**	**80.4**		**218.9**
6.	Average value	**21.1**	**278.4**	**53.1**	**32.3**	**29.6**		**162.5**
7.	Minimum value	**1.8**	**137.3**	**10.5**	**15.8**	**7.9**		**108.6**
8.	Period end	**9.2**	**267.7**	**60.2**	**46.9**	**10.7**	**(259.0)**	**135.6**
	VaR (1-day 99%)							
	Maximum value	**39.3**	**332.3**	**45.5**	**28.7**	**16.8**		**181.0**
	Average value	**8.7**	**140.0**	**17.6**	**17.3**	**8.5**		**127.6**
	Minimum value	**2.2**	**35.5**	**1.8**	**8.5**	**4.0**		**31.9**
	Period end	**5.5**	**112.0**	**19.1**	**21.4**	**4.9**	**(50.0)**	**112.8**

		FRBSA*						
		As at 30 June 2020						
	R million	Equities	Interest rates	Foreign exchange	Commodities	Traded credit	Diversification effect	Diversified total
	VaR (10-day 99%)							
1.	Maximum value	164.6	355.0	103.4	32.6	56.4	–	381.1
2.	Average value	20.8	178.7	41.4	14.5	18.9	–	152.4
3.	Minimum value	4.6	72.1	11.4	6.2	7.5	–	58.3
4.	Period end	17.3	300.4	76.2	14.7	14.1	(128.2)	294.6
	sVaR (10-day 99%)							
5.	Maximum value	105.5	356.8	247.0	42.8	31.5	–	437.4
6.	Average value	25.3	171.4	74.6	19.2	20.5	–	192.7
7.	Minimum value	0.7	110.4	12.5	5.0	7.1	–	97.7
8.	Period end	12.4	199.9	47.7	20.6	12.1	(137.7)	155.0
	VaR (1-day 99%)							
	Maximum value	43.9	197.2	252.4	18.4	26.6	–	199.9
	Average value	8.0	89.6	22.1	7.5	12.8	–	94.5
	Minimum value	1.9	27.4	7.3	1.8	5.1	–	28.2
	Period end	11.2	134.3	17.1	8.3	11.4	(67.2)	115.2

* *The IMA values for traded market risk are for FRBSA, which excludes the foreign branches and subsidiaries in the rest of Africa, which are reported on in the standardised approach for market risk.*

Due to portfolio construction and the changing historical scenarios, average VaR for the period under review increased while sVaR decreased on average for the year ended 30 June 2021. The main driver for this was increased interest rate risk while foreign exchange risk provided a counter balance.

STRESS TESTING

Stress testing provides an indication of potential losses that could occur under extreme market conditions. The ETL assessment provides a view of risk exposures under stress conditions.

Additional stress testing to supplement the ETL assessment is conducted using historical market stress scenarios and includes the use of "what-if" hypothetical and forward-looking simulations. Stress test calibrations are reviewed regularly to ensure that results are indicative of the possible impact of severely distressed and event-driven market conditions. Stress and scenario analyses are regularly reported to and considered by the relevant governance bodies.

EARNINGS VOLATILITY

A key element of the group's return and risk appetite framework is an assessment of potential earnings volatility that may arise from underlying exposures. Earnings volatility for market risk is quantified by subjecting key market risk exposures to predetermined stress conditions, ranging from business-as-usual stress through severe stress and event risks.

In addition to assessing the maximum acceptable level of earnings volatility, stress testing is used to understand sources of earnings volatility and highlight unused capacity within the group's risk appetite. Market risk earnings volatility is calculated and assessed on a quarterly basis.

REGULATORY BACKTESTING

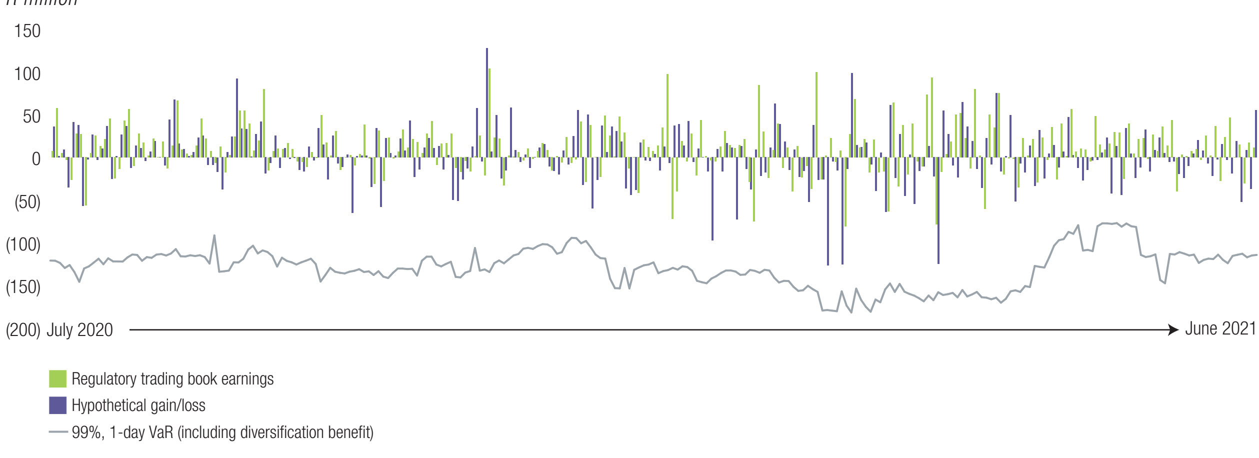
Backtesting is performed to verify the predictive ability of the VaR model and ensure ongoing appropriateness. The backtesting process is a regulatory requirement and seeks to estimate the performance of the regulatory VaR model. Performance is measured by the number of exceptions to the results produced by the model, i.e. if net trading profit and loss in one trading day is greater than the estimated VaR for the same trading day. The group's procedures could be underestimating VaR if exceptions occur regularly (a 99% confidence interval indicates that one exception will occur in 100 days).

The regulatory standard for backtesting is to measure daily actual and hypothetical changes in portfolio value against VaR at the 99th percentile (one-day holding period equivalent). The number of breaches over a period of 250 trading days is calculated, and should the number exceed that which is considered appropriate, the model is recalibrated.

Backtesting: daily regulatory trading book earnings versus 1-day, 99% VaR

The group monitors its daily domestic earnings profile as illustrated in the following chart. The earnings and 1-day VaR relate to the group's internal VaR model. Exposures were contained within risk limits during the year ended 30 June 2021.

MR4: Comparison of VaR estimates with gains and losses for FRBSA



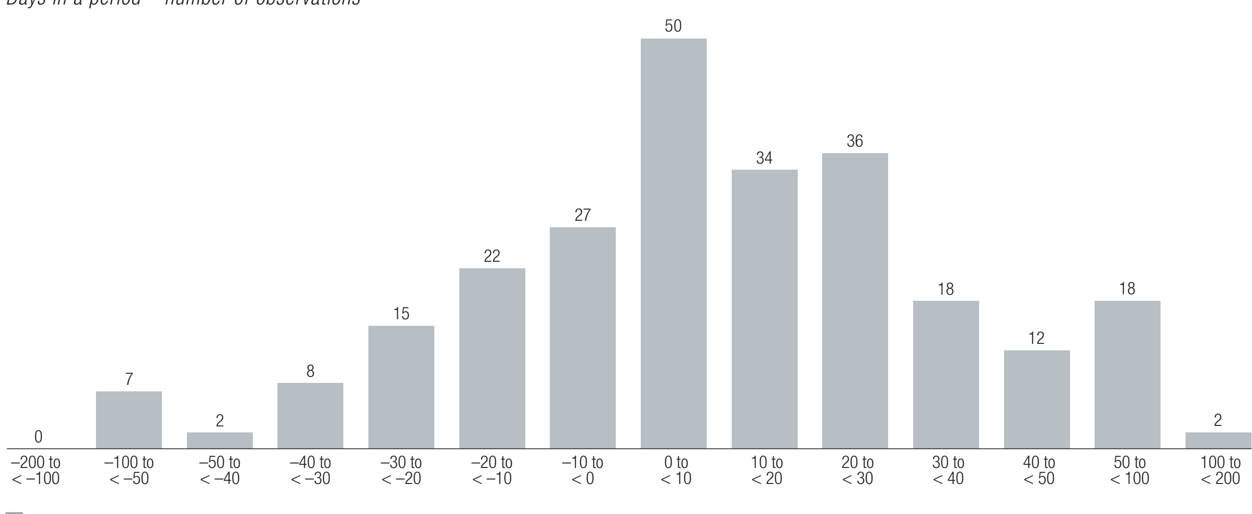
There were no significant changes in the 99%, 1-day VaR. No limit breaches were observed and the group's internal model continues to quantify market risk appropriately.

DISTRIBUTION OF DAILY TRADING EARNINGS FROM TRADING UNITS

The following histogram shows the daily revenue for the group's domestic trading units for the year ended 30 June 2021. The results are skewed towards profitability.

FRBSA distribution of daily earnings – frequency

Days in a period – number of observations



Frequency

Standardised approach: general and specific risk

The bank's India and London branches and the group's subsidiaries in the rest of Africa also have market risk exposure. The India and London branches are measured and managed on the same basis as the domestic portfolios for internal measurement, with regulatory capital based on the regulatory standardised approach. The subsidiaries in the rest of Africa are measured using the regulatory standardised approach for regulatory capital and an internal stress loss methodology for internal measurement of risk. Under the standardised approach, capital is calculated for general market risk and specific risk. Capital for specific risk is held in addition to general market risk capital.

General market risk capital	The general market risk capital calculation is based on the duration methodology. To calculate the general market risk capital charge, the long or short position (at current market value) of each debt instrument and other sources of interest rate exposure, including derivatives, is distributed into appropriate time bands by maturity. The long and short positions in each time band are then summed respectively and multiplied by the appropriate risk weight factor (reflecting the price sensitivity of the positions to changes in interest rates) to determine the risk-weighted long and short market risk positions for each time band.

Specific risk capital	Specific risk accurately measures idiosyncratic risk not captured by general market risk measures for interest rate and equity risk, such as default, credit migration and event risks, and identifies concentrations in a portfolio. The total regulatory-specific risk capital amount is the sum of equity-specific risk and interest rate-specific risk, and is based on the Basel III standardised approach duration method.

FRBSA's balance sheet is exposed to interest rate and equity specific risk. The bank's India and London branches and the group's subsidiaries in the rest of Africa are exposed to interest rate and foreign exchange (general risk). Aldermore is exposed to foreign exchange (general risk).

MR1: MARKET RISK UNDER STANDARDISED APPROACH – RISK WEIGHTED ASSETS

		RWA			
		FirstRand		FRB*	
		As at 30 June			
R million		**2021**	2020	**2021**	2020
	Outright products				
1.	Interest rate risk	**8 668**	7 726	**6 204**	6 184
	– Specific risk	**6 861**	6 254	**6 194**	5 777
	– General risk	**1 807**	1 472	**10**	407
2.	Equity risk	**866**	787	**830**	787
	– Specific risk	**866**	787	**830**	787
	– General risk	**–**	–	**–**	–
3.	Foreign exchange risk	**3 154**	3 508	**2 077**	2 392
	– Traded market risk	**504**	719	**82**	259
	– Non-traded market risk	**2 650**	2 789	**1 995**	2 133
4.	Commodity risk		–	**–**	–
9.	**Total**	**12 688**	12 021	**9 111**	9 363

* *FRB includes foreign branches.*

Market risk was contained within acceptable stress loss limits and effectively managed across the subsidiaries during the year.

Options are excluded from using IMA (rows 5 – 7 of the MR1 template are therefore excluded), (refer to *MR3: IMA values for traded market risk* template) and securitisations (row 8 of the MR1 template are therefore excluded) are capitalised under the securitisation framework (refer to the *Securitisation* section).

The increase in standardised RWA was manly driven by increased in bond holdings from both Nigeria and Ghana subsidiaries.

NON-TRADED MARKET RISK

For non-traded market risk, the group distinguishes between **interest rate risk in the banking book** and **structural foreign exchange risk**. The following table describes how these risks are measured, managed and governed.

RISK AND JURISDICTION	RISK MEASURE	MANAGED BY	OVERSIGHT
Interest rate risk in the banking book			
Domestic – FNB, RMB, WesBank and FCC	> 12-month earnings sensitivity. > Economic sensitivity of open risk position.	Group Treasury	> FCC Risk Management > Group ALCCO
Subsidiaries in the rest of Africa and the bank's foreign branches	> 12-month earnings sensitivity. > Economic sensitivity of open risk position.	In-country management	> Group Treasury > FCC Risk Management > In-country ALCCOs > Rest of Africa and foreign branches ALCCO
Structural foreign exchange			
Group including Aldermore	> Total capital in a functional currency other than rand. > Impact of translation back to rand reflected in group's income statement. > Foreign currency translation reserve value.	Group Treasury	> Group ALCCO > FCC Risk Management

INTEREST RATE RISK IN THE BANKING BOOK

Introduction and objectives

Interest rate risk in the banking book relates to the sensitivity of a bank's balance sheet and earnings to unexpected, adverse movements in interest rates.

Interest rate risk in the banking book (IRRBB) originates from the differing repricing characteristics of balance sheet positions/instruments, yield curve risk, basis risk and client optionality embedded in banking book products.

The endowment effect, which results from a large proportion of non- and low-rate liabilities that fund variable-rate assets, remains the primary driver of IRRBB and results in the group's earnings being vulnerable to interest rate cuts, or conversely benefiting from interest rate hikes.

IRRBB is an inevitable risk associated with banking and can be an important source of profitability and shareholder value. FirstRand continues to manage IRRBB on an earnings approach, with the aim to protect and enhance the group's earnings and economic value through the cycle within approved risk limits and appetite levels. The endowment hedge portfolio is managed dynamically, taking into account the continually changing macroeconomic environment.

Hedges are in place to protect the group's net interest margin. These hedges are actively monitored along with macroeconomic factors impacting domestic rates, as well as rates in the other countries where the group operates.

Effect of interbank offer rate reform

LIBOR is the reference interest rate that underpins trillions of dollars of loan and derivative contracts worldwide. The reform of these reference rates and their replacement with alternative risk-free rates have become a priority for global regulators. On 5 March 2021, LIBOR's administrator, the ICE Benchmark Administration Limited, confirmed the intention to cease the publication of dollar LIBOR (one-week and two-month tenors); and pound, euro, swiss franc, yen LIBOR for all tenors after 31 December 2021; and dollar LIBOR for the remaining tenors after 30 June 2023. At present, the Sterling Overnight Index Average (SONIA) and Secured Overnight Financing Rate (SOFR) are set to replace pound and dollar LIBOR, respectively. Due to the differences in the manner in which £/$ LIBOR rate and SONIA/SOFR are determined, adjustments may have to be applied to contracts that reference to £/$ LIBOR when SONIA/SOFR becomes the official reference rate, so as to ensure economic equivalence on transition. Currently the Financial Conduct Authority (FCA) in the UK and industry working groups are reviewing various methodologies for calculating these adjustments to ensure an orderly transition to SONIA/SOFR, and to minimise the financial risks arising from transition. The following alternative risk-free rates are currently set to replace the following LIBORs which the group is exposed to:

- $ – SOFR
- £ – SONIA
- € – Euro short-term rate
- ¥ – Tokyo overnight average rate
- CHF – Swiss average rate overnight

The group currently has several contracts, including derivatives, loans and securitisations, that reference pound and dollar LIBOR which extend beyond their respective cessation dates for the relevant tenors. The group has established a steering committee consisting of key finance, risk, IT, treasury, legal and compliance personnel and external advisors, to oversee its interbank offered rate (IBOR) reform transition plan. This steering committee has put in place a transition project for affected contracts with the aim of minimising the potential disruption to business and mitigating operational and conduct risks and possible financial losses. With respect to derivative contracts, ISDA is currently reviewing its definitions considering the global IBOR reforms and the group expects it to issue standardised amendments to all impacted derivative contracts at a future date.

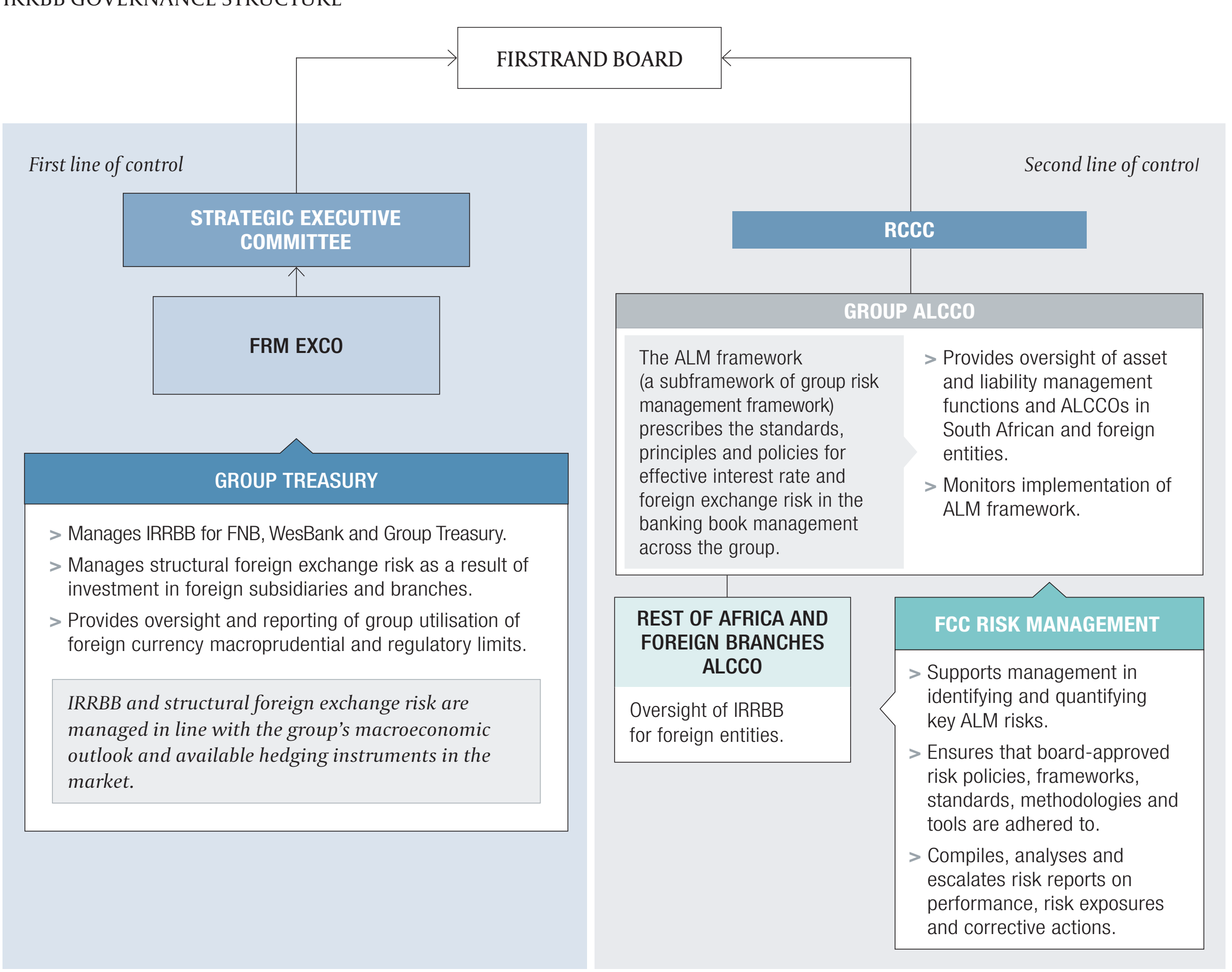
The FCA announced that LIBOR rates will cease to be quoted or represented in the market by 31 December 2021. The group is currently transitioning all instruments exposed to pound, euro, swiss franc, yen LIBOR (for all tenors) and dollar LIBOR (one-week and two-month tenors), with the expectation that all instruments will be transitioned to new alternative risk-free rates by 31 December 2021. The group will continue to transition all other instruments exposed to other IBOR rates, as and when alternative risk-free rates become available and on the instruments' reset dates. Aldermore will be fully transitioned away from LIBOR by 31 December 2021.

YEAR UNDER REVIEW AND FOCUS AREAS

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> The SARB cut interest rates 25 bps between 1 July 2020 and 30 June 2021. > The group has made the necessary arrangements to cater for IBOR reform.	> The BCBS, through the task force for IRRBB, has published more robust regulations for IRRBB. The group is addressing these new requirements, which will be formally adopted on 1 June 2022. > In line with the FirstRand houseview and given current uncertainty about the level and direction of future interest rates, the group continues to actively manage endowment risk.

Organisational structure and governance

IRRBB GOVERNANCE STRUCTURE



Assessment and management

The measurement techniques used to monitor IRRBB in FRBSA include NII sensitivity/earnings risk and NAV/economic value of equity (EVE) sensitivity. A repricing gap is also generated to better understand the repricing characteristics of the balance sheet. In calculating the repricing gap, all banking book assets, liabilities and derivative instruments are placed in gap intervals based on repricing characteristics. However, the repricing gap is not used for management decisions.

The internal funds transfer pricing process is used to transfer interest rate risk from the operating businesses to Group Treasury. This process allows risk to be managed centrally and holistically in line with the group's macroeconomic outlook. Management of the resultant risk position is achieved by balance sheet optimisation or through the use of derivative transactions. Derivative instruments used are mainly interest rate swaps, for which a liquid market exists. Where possible, hedge management is used to minimise accounting mismatches, thus ensuring that amounts deferred in equity are released to the income statement at the same time as movements attributable to the underlying hedged asset/ liability. Interest rate risk from the fixed-rate book is managed to low levels with remaining risk stemming from timing and basis risk.

Management of IRRBB in the subsidiaries in the rest of Africa, Aldermore and the bank's foreign branches is performed by in-country management teams with oversight provided by Group Treasury and FCC Risk Management. For subsidiaries, earnings sensitivity measures are used to monitor and manage interest rate risk in line with the group's appetite. Where applicable, NAV sensitivity risk limits are also used for endowment hedges.

INTEREST RATE RISK MANAGEMENT AND ASSESSMENT

FRAMEWORKS AND MANDATES			MACROECONOMIC VIEW
	Risk measurement	Underlying banking book balance sheet	
		Modelling and analytics	
	Risk management	Risk transfer process	
		Hedging strategies and portfolio management	
	Risk monitoring	Daily risk and profit or loss	
		Regulatory, financial and internal reporting	

SENSITIVITY ANALYSIS

A change in interest rates impacts both the earnings potential of the banking book (as underlying assets and liabilities reprice to new rates), as well as the economic value/NAV of an entity (as a result of a change in the fair value of any open risk portfolios used to manage the earnings risk). The role of management is to protect both the financial performance and the long-term economic value of the bank. To achieve this, both earnings sensitivity and economic value sensitivity measures are monitored and managed within appropriate risk limits and appetite levels, considering the macroeconomic environment and factors which can cause a change in rates.

EARNINGS SENSITIVITY

Earnings models are run on a monthly basis to provide a measure of the NII sensitivity of the existing banking book balance sheet to shocks in interest rates. Underlying transactions are modelled on a contractual basis and behavioural adjustments are applied where relevant. The calculation assumes a constant balance sheet size and product mix over the forecast horizon. A pass-through assumption is applied in relation to non-maturing deposits, which reprice at the group's discretion. This assumption is based on historical product behaviour.

The following tables show the 12-month NII sensitivity for sustained, instantaneous parallel 200 bps downward and upward shocks to interest rates. The decreased sensitivity is attributable to the increase in hedges put in place to manage the margin impact of the endowment book as a result of interest rate cuts effected by the SARB to mitigate the financial stress brought about by the Covid-19 pandemic. The endowment book remains actively managed.

Most of the group's NII sensitivity relates to the endowment book mismatch. The group's average endowment book was R286 billion for the year ended 30 June 2021. Total sensitivity is measured to rand interest rate moves in South Africa, and to local currency interest rate moves in the subsidiaries in the rest of Africa and Aldermore.

PROJECTED NII SENSITIVITY TO INTEREST RATE MOVEMENTS

	As at 30 June 2021		
	Change in projected 12-month NII		
R million	**FRBSA**	**Subsidiaries in the rest of Africa and the bank's foreign branches**	**FirstRand**
Downward 200 bps	**(1 621)**	**(777)**	**(2 398)**
Upward 200 bps	**1 066**	**428**	**1 494**

	As at 30 June 2020		
	Change in projected 12-month NII		
R million	FRBSA	Subsidiaries in the rest of Africa and the bank's foreign branches	FirstRand
Downward 200 bps	(2 730)	(916)	(3 646)
Upward 200 bps	1 846	381	2 227

Assuming no change in the balance sheet and no management action in response to interest rate movements, an instantaneous, sustained parallel 200 bps decrease in interest rates would result in a reduction in projected 12-month NII of R2 398 million. A similar increase in interest rates would result in an increase in projected 12-month NII of R1 494 million.

ECONOMIC VALUE OF EQUITY

An EVE sensitivity measure is used to assess the impact on the total NAV of the group as a result of a shock to underlying rates. Unlike the trading book, where a change in rates will impact fair value income and reportable earnings of an entity when a rate change occurs, the realisation of a rate move in the banking book will impact the distributable and non-distributable reserves to varying degrees and is reflected in the NII margin more as an opportunity cost/benefit over the life of the underlying positions. As a result, a purely forward-looking EVE shock applied to the banking book is monitored relative to total risk limits, appetite levels and current economic conditions.

The EVE shocks applied are based on regulatory guidelines and comprise a sustained, instantaneous parallel 200 bps downward and upward shock to interest rates. This is applied to risk portfolios managed by Group Treasury, which, as a result of the risk transfer through the internal funds transfer pricing process, captures relevant open risk positions in the banking book. This measure does not take into account the unrealised economic benefit embedded as a result of the banking book products which are not recognised at fair value.

The following table:

- highlights the sensitivity of banking book NAV as a percentage of total capital; and
- reflects a point-in-time view, which is dynamically managed and can fluctuate over time.

BANKING BOOK NAV SENSITIVITY TO INTEREST RATE MOVEMENTS AS A PERCENTAGE OF TOTAL CAPITAL

	FRBSA		FirstRand	
	As at 30 June			
%	**2021**	2020	**2021**	2020
Downward 200 bps	**4.55**	4.12	**3.20**	2.76
Upward 200 bps	**(4.12)**	(3.67)	**(2.90)**	(2.46)

The increase in NAV sensitivity in the year under review is attributable to an increase in tactical hedges. The group increased its endowment book hedge position relative to the prior year, in line with the macroeconomic house view.

STRUCTURAL FOREIGN EXCHANGE RISK

Introduction and objectives

Foreign exchange risk is the risk of an adverse impact on the group's financial position or earnings or other key ratios as a result of movements in foreign exchange rates impacting balance sheet exposures.

The group is exposed to foreign exchange risk as a result of on-balance sheet transactions in a currency other than the rand, as well as through structural foreign exchange risk from the translation of its foreign operations' results into rand. The impact on equity as a result of structural foreign exchange risk is recognised in the foreign currency translation reserve balance, which is included in qualifying capital for regulatory purposes.

Structural foreign exchange risk as a result of net investments in the foreign entities with a functional currency other than rand is an unavoidable consequence of having offshore operations. It can be a source of both investor value through diversified earnings and unwanted volatility as a result of currency fluctuations. Group Treasury is responsible for actively monitoring the net capital invested in foreign entities, as well as the rand value of any capital investments and dividend distributions.

YEAR UNDER REVIEW AND FOCUS AREAS

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> Continued to strengthen principles for the management of foreign exchange positions and the funding of the group's foreign entities. > Monitored the net open forward position in foreign exchange exposure against limits in each of the group's foreign entities.	> Continue to assess and review the group's foreign exchange exposures and enhance the quality and frequency of reporting.

Organisational structure and governance

Reporting on of the group's foreign exchange exposure and management of that exposure resulting from banking book activities relative to the macroprudential limit utilisation is a function performed by Group Treasury as the clearer of all group currency positions. Group Treasury is also responsible for oversight of structural foreign exchange risk with reporting through to group ALCCO. Refer to the governance structure in the *Interest rate risk in the banking book* section.

Assessment and management

The ability to transact on-balance sheet in a currency other than the home currency (rand) is governed by in-country macroprudential and regulatory limits. In the group, additional board limits and management appetite levels are set for this exposure. The impact of any residual on-balance positions is managed as part of market risk reporting (see *Traded market risk* section). Group Treasury is responsible for consolidated group reporting and utilisation of these limits against approved limits and appetite levels.

Foreign exchange risk in the banking book comprises funding and liquidity management and risk mitigating activities. To minimise funding risk across the group, foreign currency transactions are matched, where possible, with residual liquidity risk managed centrally by Group Treasury, and usually to low levels (see *Liquidity risk and funding* section). Structural foreign exchange risk impacts both the current NAV of the group as well as future profitability and earnings potential. Economic hedging is undertaken where viable, given market constraints and within risk appetite levels. Where possible, hedge accounting is applied. Any open positions are included as part of market risk in the trading book.

Net structural foreign exposures and sensitivity

The following table provides an overview of the group's exposure to entities with functional currencies other than rand and the pre-tax impact on equity of a 15% change in the exchange rate between the South African rand and the relevant functional foreign currencies. There were no significant structural hedging strategies in the year under review. The increases in dollar and pound capital are largely a result of the depreciation of the rand against those currencies over the period.

NET STRUCTURAL FOREIGN EXPOSURES

	As at 30 June 2021		As at 30 June 2020	
R million	**Exposure**	**Impact on equity from 15% currency translation shock**	Exposure	Impact on equity from 15% currency translation shock
Functional currency				
Botswana pula	**5 632**	**845**	5 816	872
US dollar	**9 232**	**1 385**	10 033	1 505
British pound sterling	**26 390**	**3 958**	24 261	3 639
Nigerian naira	**2 010**	**301**	2 347	352
Australian dollar	**25**	**4**	32	5
Zambian kwacha	**502**	**75**	567	85
Mozambican metical	**439**	**66**	548	82
Indian rupee	**742**	**111**	915	137
Ghanaian cedi	**1 266**	**190**	1 619	243
Tanzanian shilling	**318**	**48**	285	43
Common Monetary Area (CMA) countries*	**7 220**	**1 083**	6 597	990
Total	**53 776**	**8 066**	53 020	7 953

* *Namibia, Eswatini and Lesotho are currently part of the CMA. Unless these countries decide to exit the CMA, rand volatility will not impact their rand reporting values.*

EQUITY INVESTMENT RISK

Introduction and objectives

Equity investment risk is the risk of an adverse change in the fair value of an investment in a company, fund or listed, unlisted or bespoke financial instrument.

Equity investment risk in the group arises primarily from equity exposures from private equity and investment banking activities in RMB, e.g. exposures to equity risk arising from principal investments or structured lending.

Other sources of equity investment risk include strategic investments held by WesBank, FNB, Aldermore and FCC. These investments are, by their nature, core to the individual businesses' daily operations and are managed as such.

FirstRand Investment Management Holdings Limited, the group's asset management business, also contributes to equity investment risk. This risk emanates from long-term and short-term seeding activities both locally and offshore. Short-term seeding of new funds exposes the group to equity investment risk until the funds reach sufficient scale for sustainable external distribution. The timeline for short-term seeding is defined in the business cases for the funds and typically ranges between one and three years.

Long-term seeding is provided if there is alignment with the business strategy, the business case meets the group's internal return hurdle requirements, and the liquidity and structure of the funds imply that an exit will only be possible over a longer period, aligned with the interests of other investors in these funds. Long-term investments, such as investment in private equity and real estate, will only be exited at the end of the investment horizon of the funds. This maturity period typically ranges from five to eight years post investment in the fund.

REGULATORY DEVELOPMENTS

The BCBS standard on *Capital requirements for banks' equity investments in funds*, effective from 1 January 2021, requires banks' exposures in funds to be risk weighted using the following approaches with varying degrees of risk sensitivity:

> look-through approach;
> mandate-based approach; and
> fall-back approach.

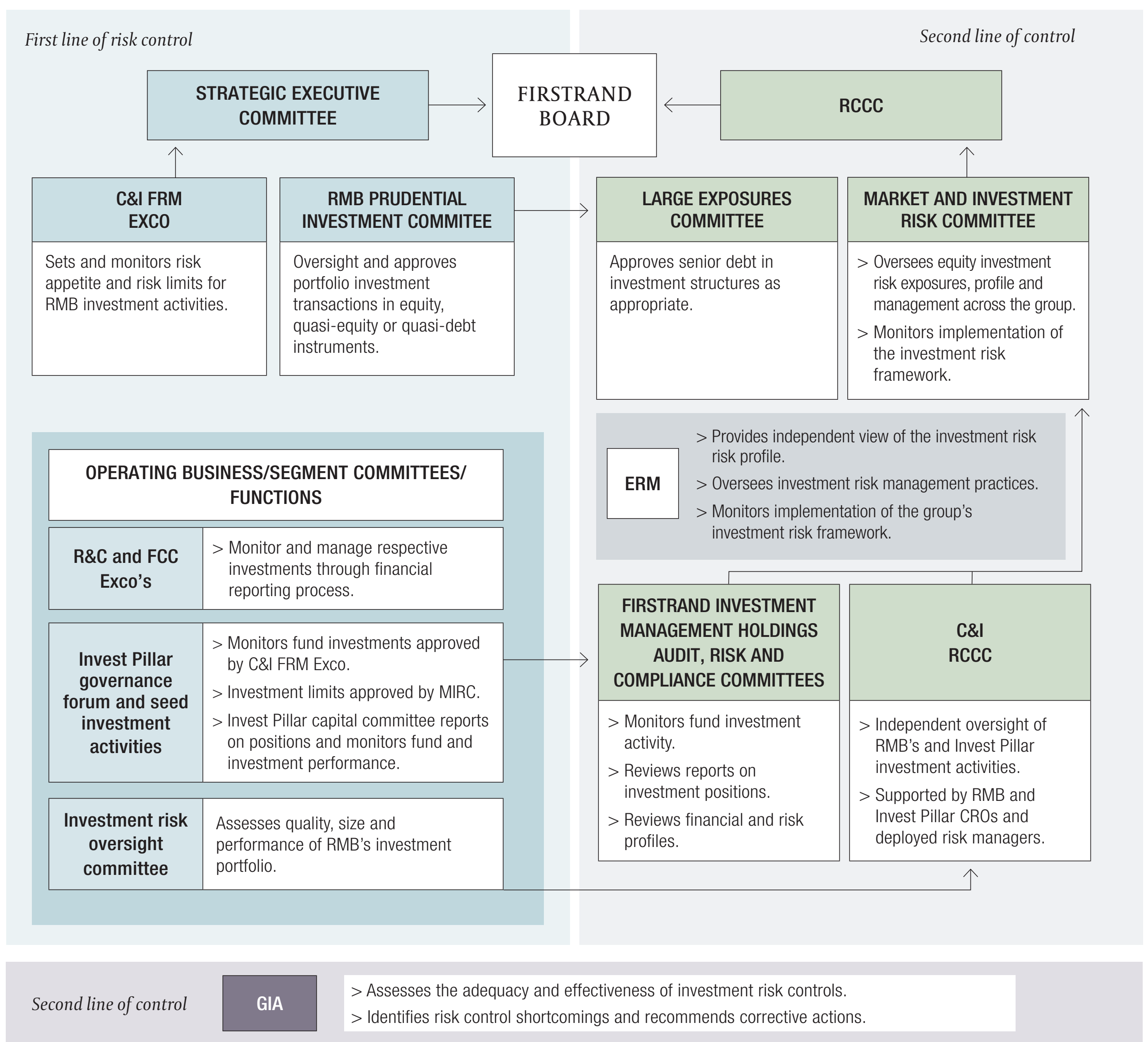
To ensure that banks have appropriate incentives to enhance the management of exposures, the degree of conservatism increases with each successive approach. The BCBS also incorporated a leverage adjustment to RWAs derived from the above approaches to appropriately reflect a fund's leverage. The group has implemented the necessary processes to comply with the standard. The overall quality of the investment portfolio remains acceptable and is within risk appetite.

YEAR UNDER REVIEW AND FOCUS AREAS

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> The year under review was characterised by limited acquisitions as the private equity team deliberately focused on portfolio management activities, with an emphasis on liquidity management and returning capital to shareholders. > The portfolio benefited from improved macroeconomic conditions as South Africa transitioned to lower lockdown levels post the initial hard lockdown. Increased earnings combined with de-gearing over the year has seen an increase in the market value of the portfolio which is now above pre-pandemic levels. > The unrealised value of RMB Private Equity's portfolio at 30 June 2021 was R4.4 billion (2020: R3.3 billion). > The new BCBS standard for the capital requirements for banks' equity investment in funds was implemented The group applies the mandate-based approach.	> South Africa is likely to experience further waves of Covid-19, which may result in stricter lockdown measures being implemented, which would affect the economic recovery. Consequently, the Private Equity team will continue to work closely with portfolio companies, ensuring that any further lockdowns have a minimal impact on existing operations, whilst also looking for bolt-on acquisition opportunities at attractive pricing.

Organisational structure and governance

EQUITY INVESTMENT RISK GOVERNANCE STRUCTURE



Assessment and management

MANAGEMENT OF EXPOSURES

The equity investment risk portfolio is managed through a rigorous evaluation and review process from inception to exit of a transaction. All investments are subject to a comprehensive due diligence, during which a thorough understanding of the target company's business, risks, challenges, competitors, management team and unique advantage or value proposition is developed.

For each transaction, an appropriate structure is put in place which aligns the interests of all parties involved through the use of incentives and constraints for management and other investors. Where appropriate, the group seeks to take a number of seats on the company's board and maintains close oversight through monitoring of operations and financial discipline.

The investment thesis, results of the due diligence process and investment structure are discussed by the investment committee before final approval is granted. In addition, biannual reviews are performed for each investment and crucial parts of these reviews, such as valuation estimates, are independently peer reviewed.

RECORDING OF EXPOSURES – ACCOUNTING POLICIES

All equity investments in scope of IFRS 9 are measured at fair value in the statement of financial position, with value changes recognised in profit or loss, except for those equity investments for which the entity has elected to present value changes in "other comprehensive income". There is no "cost measurement" exemption for unquoted equities.

If an equity investment is not held for trading, an entity can make an irrevocable election at initial recognition to measure it at fair value through other comprehensive income with only dividend income recognised in profit or loss. Despite the fair value requirement for all equity investments, IFRS 9 contains guidance on when cost may be the best estimate of fair value and also when it might not be representative of fair value.

Consistent with the group's accounting policies, the consolidated financial statements include the assets, liabilities and results of operations of all equity investments where the group has control of the relevant activities and the ability to use that control to affect the variable returns received from the entity.

Equity investments in associates and joint ventures are included in the consolidated financial statements using the equity-accounting method. Associates are entities where the group holds an equity interest of between 20% and 50%, over which it has the ability to exercise significant influence, but not control. Joint ventures are entities in which the group has joint control over the relevant activities of the joint venture through a contractual agreement.

MEASUREMENT OF RISK EXPOSURES AND STRESS TESTING

Risk exposures are measured in terms of potential loss under stress conditions. A series of standardised stress tests are used to assess potential losses under current market conditions and adverse market conditions, as well as severe stress/event risk conditions. These stress tests are conducted at individual investment and portfolio level.

In the private equity portfolio, the group targets an investment profile that is diversified along a number of pertinent dimensions, such as geography, industry, investment stage and vintage.

Economic and regulatory capital calculations are augmented by regular stress tests of market values and underlying drivers of valuation, e.g. company earnings, valuation multiples and assessments of stress resulting from portfolio concentrations.

REGULATORY AND ECONOMIC CAPITAL

The simple risk-weighted method under the market-based approach (300% for listed equities or 400% for unlisted equities) is applied with the scaling factor (where appropriate) for the quantification of regulatory capital. Under the Regulations, the risk weight applied to investments in financial, banking and insurance entities is subject to the aggregate and individual value of the group's shareholding in these investments, and also in relation to the group's qualifying CET1 capital.

For economic capital purposes, an approach using market value shocks to the underlying investments is used to assess economic capital requirements for unlisted investments after taking any unrealised profits into account.

For the quantification of regulatory capital, equity investments in funds are risk weighted using the MBA or FBA, depending on the criteria met by the fund. For MBA, funds are risk weighted according to the fund's mandate or information obtained from other relevant disclosures of the fund. Where the fund mandate further permits the use of leverage and/or derivatives, the RWA is adjusted to take these into account. FBA applies a 1 250% risk weighting, which is the maximum risk weighting permissible under either of the approaches.

Where price discovery is reliable, the risk of listed equity investments is measured based on a 90-day ETL calculated using RMB's internal market risk model. The ETL risk measure is supplemented by a measure of the specific (idiosyncratic) risk of the individual securities per the specific risk measurement methodology.

Equity investment risk valuations

The table below shows the equity investment risk exposure and sensitivity. The 10% sensitivity movement is calculated on the carrying value of investments, excluding those subject to the ETL process and including the carrying value of investments in associates and joint ventures.

GROUP INVESTMENT RISK EXPOSURE AND SENSITIVITY OF INVESTMENT RISK EXPOSURE AND EQUITY INVESTMENTS IN FUNDS

	As at June 2021			As at June 2020		
R million	**Publicly quoted investments**	**Privately held investments**	**Total**	Publicly quoted investments	Privately held investments	Total
Carrying value of investments	**4**	**10 139**	**10 143**	21	11 125	11 146
Per risk bucket						
250% – Basel III investments in financial entities	**–**	**5 255**	**5 255**	–	4 679	4 679
300% – Listed investments	**4**	**–**	**4**	21	–	21
400% – Unlisted investments	**–**	**4 884**	**4 884**	–	6 446	6 446
Equity investments in funds*		**2 072**	**2 072**	–	–	–
Mandate-based approach	**–**	**2 072**	**2 072**	–	–	–
Latent revaluation gains not recognised in the balance sheet**	**–**	**6 689**	**6 689**	–	5 646	5 646
Fair value	**4**	**18 900**	**18 904**	21	16 771	16 792
Listed investment risk exposure included in the equity investment risk ETL process	**4**	**–**	**4**	19	–	19
Estimated sensitivity to 10% movement in market value on investment fair value of remaining investment balances			**149**			243
Cumulative gains realised from sale of positions in the banking book during the year			**54**			427
Capital requirement#	**2**	**5 049**	**5 051**	7	4 098	4 105

* *The regulation relating to equity investments in funds came into effect from 1 January 2021.*

** *These unrealised gains or losses are not included in Tier 1 or Tier 2 capital.*

Capital requirement calculated at 12.0% (June 2020: 10.50%) of RWA. The minimum requirement excludes the Pillar 2B capital requirement. The difference to the BCBS base minimum (8%) relates to the buffer add-ons for Pillar 2A, CCyB, capital conservation and the D-SIB as prescribed in the Regulations. The Pillar 2A and CCyB requirements were 0% at 30 June 2021.

FRBSA INVESTMENT RISK EXPOSURE AND SENSITIVITY OF INVESTMENT RISK EXPOSURE AND EQUITY INVESTMENTS IN FUNDS

	As at June 2021			As at June 2020		
R million	**Publicly quoted investments**	**Privately held investments**	**Total**	Publicly quoted investments	Privately held investments	Total
Carrying value of investments	4	830	834	4	1 262	1 266
Per risk bucket						
250% – Basel III investments in financial entities	**–**	**153**	**153**	–	180	180
300% – Listed investments	**4**	**–**	**4**	4	–	4
400% – Unlisted investments	**–**	**677**	**677**	–	1 082	1 082
Equity investments in funds*	**–**	**136**	**136**	–	–	–
Mandate-based approach	**–**	**136**	**136**	–	–	–
Latent revaluation gains not recognised in the balance sheet**	**–**	**–**	**–**	–	–	–
Fair value	**4**	**967**	**971**	4	1 262	1 266
Listed investment risk exposure included in the equity investment risk ETL process	**4**	**–**	**4**	–	–	–
Estimated sensitivity to 10% movement in market value on investment fair value of remaining investment balances			**97**			126
Cumulative gains realised from sale of positions in the banking book during the year			**–**			–
Capital requirement#	**2**	**450**	**452**	1	529	530

* *The regulation relating to equity investments in funds came into effect from 1 January 2021.*

** *These unrealised gains or losses are not included in Tier 1 or Tier 2 capital.*

Capital requirement calculated at 12.0% (June 2020: 10.50%) of RWA. The minimum requirement excludes the Pillar 2B capital requirement. The difference to the BCBS base minimum (8%) relates to the buffer add-ons for Pillar 2A, CCyB, capital conservation and the D-SIB as prescribed in the Regulations. The Pillar 2A and CCyB requirements were 0% at 30 June 2021.

CR10: FIRSTRAND EQUITY EXPOSURES USING SIMPLE RISK WEIGHT METHOD AND EQUITY INVESTMENTS IN FUNDS

	As at 30 June 2021				
R million	**On-balance sheet amount**	**Off-balance sheet amount**	**Risk weight**	**Exposure amount**	**RWA**
Categories					
Exchange-traded equity exposures*	**4**	**–**	**300%**	**4**	**14**
Private equity exposures*	**4 884**	**–**	**400%**	**4 884**	**20 708**
Subtotal	**4 888**	**–**		**4 888**	**20 722**
Equity investments in funds**	**2 072**	**–**		**2 072**	**8 224**
Mandate-based approach	**2 072**	**–**	**397%**	**2 072**	**8 224**
Financial and insurance entities	**5 255**	**–**	**250%**	**5 255**	**13 138**
Total	**12 215**	**–**		**12 215**	**42 084**

* *RWA includes 6% scaling factor.*

** *The regulation relating to equity investments in funds came into effect from 1 January 2021.*

	As at 30 June 2020				
R million	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA
Categories					
Exchange-traded equity exposures*	21	–	300%	21	66
Private equity exposures*	6 446	–	400%	6 446	27 331
Subtotal	6 467	–		6 467	27 397
Financial and insurance entities	4 679	–	250%	4 679	11 698
Total	11 146	–		11 146	39 095

* *RWA includes 6% scaling factor.*

CR10: FRBSA EQUITY EXPOSURES USING SIMPLE RISK WEIGHT METHOD AND EQUITY INVESTMENTS IN FUNDS*

	As at 30 June 2021				
R million	**On-balance sheet amount**	**Off-balance sheet amount**	**Risk weight**	**Exposure amount**	**RWA**
Categories					
Exchange-traded equity exposures**	**4**	**–**	**300%**	**4**	**13**
Private equity exposures**	**677**	**–**	**400%**	**677**	**2 872**
Subtotal	**681**	**–**		**681**	**2 885**
Equity investments in funds#	**136**	**–**		**136**	**497**
Mandate-based approach	**136**	**–**	**365%**	**136**	**497**
Financial and insurance entities	**153**	**–**	**250%**	**153**	**383**
Total	**971**	**–**		**971**	**3 765**

* *Excludes foreign branches.*

** *RWA includes 6% scaling factor.*

The regulation relating to equity investments in funds came into effect from 1 January 2021.

	As at 30 June 2020				
R million	On-balance sheet amount	Off-balance sheet amount	Risk weight	Exposure amount	RWA
Categories					
Exchange-traded equity exposures**	4	–	300%	4	14
Private equity exposures**	1 082	–	400%	1 082	4 588
Subtotal	1 086	–		1 086	4 603
Financial and insurance entities	180	–	250%	180	450
Total	1 266	–		1 266	5 053

* *Excludes foreign branches.*

** *RWA includes 6% scaling factor.*

INSURANCE RISK

Introduction and objectives

Insurance risk arises from the inherent uncertainties of liabilities payable under an insurance contract. These uncertainties can result from the occurrence, amount or timing of the liabilities differing from expectations. Insurance risk can arise throughout the product cycle and is related to product design, pricing, underwriting and claims management.

The risk arises from the group's third-party insurance operations housed in FirstRand Insurance Holdings Limited. Currently insurance risk arises from the group's long-term insurance operations, underwritten through its subsidiary FirstRand Life Assurance Limited (FirstRand Life), and short-term insurance operations, underwritten through its subsidiary FirstRand Short Term Insurance Limited (FirstRand STI).

FirstRand Life currently underwrites funeral policies, accidental death plans, risk policies, credit life policies (against FNB credit products), health cash plans and guaranteed annuities. FirstRand Life also writes linked-investment policies. There is, however, no insurance risk associated with these policies as these are not guaranteed. These policies are all originated through FNB.

FirstRand STI currently underwrites legal plans, warranty policies, scratch and dent products, business cash flow cover policies, building cover and home contents insurance and is in the process of developing further short-term insurance products. These policies are also originated through FNB.

Funeral policies pay benefits upon death of the policyholder and, therefore, expose the group to mortality risk. The underwritten risk policies and credit life policies further cover policyholders for disability and critical illness, which are morbidity risks. Credit life policies also cover retrenchment risk. Health cash plans pay a benefit per day for each day that a policyholder is hospitalised. Guaranteed annuities pay benefits on continued survival of the policyholder and expose the group to longevity risk, interest rate risk and inflation risk.

Legal plans provide legal assistance or pay for legal fees on the occurrence of events specified in the policies. Building cover indemnifies policyholders to damage to their homes, whilst home content insurance indemnifies policyholders for the loss of home contents and portable possessions. Business cash flow cover provides cover in the form of daily cash amounts for interruption of commercial customers' business operations due to insured events.

As a result of these insurance risk exposures, the group is exposed to catastrophe risk, stemming from the possibility of an extreme event linked to any of the above.

For all the above, the risk is that the decrement rates (e.g. mortality rates, morbidity rates, etc.) and associated cash flows are different from those assumed when pricing or reserving. These risks can further be broken down into parameter risk, random fluctuations and trend risk, which may result in the parameter value assumed differing from actual experience.

Policies underwritten by FirstRand Life and FirstRand STI are available through FNB's distribution channels. Some of these channels introduce the possibility of anti-selection, which also affects insurance risk.

YEAR UNDER REVIEW AND FOCUS AREAS

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> Managing the impact of the Covid-19 pandemic on claims. > Managing risk associated with the growth in policies on the short-term insurance licence. > Progress in implementing the short-term insurance policy administration system.	> Managing insurance risk throughout the Covid-19 pandemic. > Monitoring and reporting of death claims resulting from Covid-19. > Embedding risk appetite. > Embedding risk management processes and tools for the comprehensive short-term insurance business.

Organisational structure and governance

FirstRand Life and FirstRand STI are wholly owned subsidiaries of FirstRand Insurance Holdings. FirstRand Life is an approved long-term insurer in terms of the Long-term Insurance Act. FirstRand STI is an approved short-term insurer in terms of the Short-term Insurance Act 53 of 1998.

FirstRand Insurance Holdings board committees include an audit and risk committee; an asset, liability and capital committee; and a remuneration committee. The asset, liability and capital committee is responsible for:

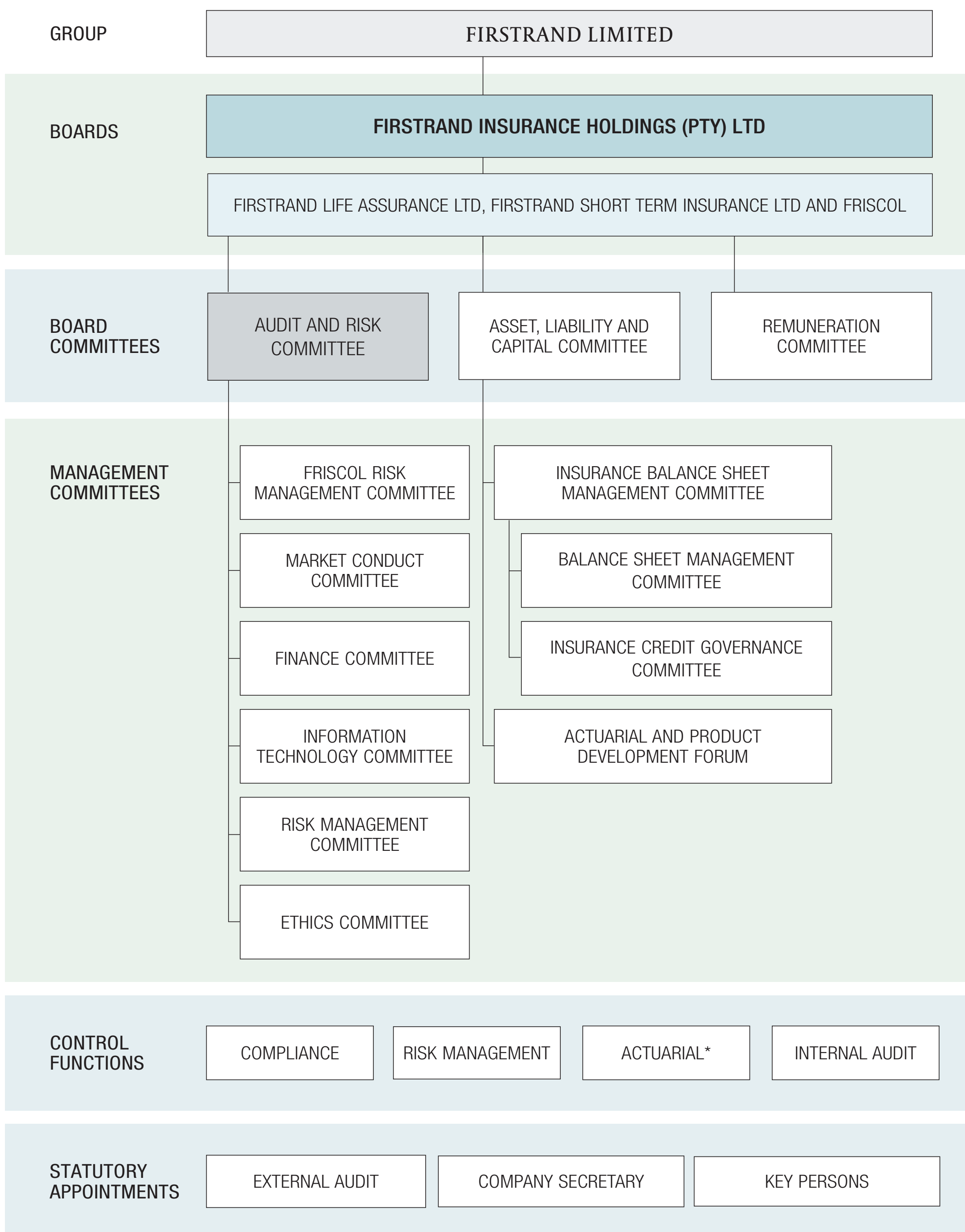
- providing oversight of the product suite;
- approving new products;
- financial resource management; and
- governance, and challenging inputs, models and results of pricing and valuations.

To ensure consistency within the group, FirstRand Life, FirstRand STI and FirstRand Insurance Holdings have the same board and common members in the group governance committees. Relevant group and R&C segment committees have oversight of and receive feedback from the appropriate FirstRand insurance committees.

Control functions, namely compliance, risk management, actuarial and internal audit are key to the management of insurance risk.

The following diagram illustrates the insurance risk governance structures in FirstRand Insurance Holdings.

INSURANCE RISK GOVERNANCE STRUCTURE



** FRISCOL is exempted from having an actuarial control function.*

Assessment and management

The group manages its insurance risk to be within its stated risk appetite. This translated into risk limits for various metrics that can be monitored and managed.

The assessment and management of risk focuses on two main areas, namely:

> product design and pricing; and

> the management of the in-force book.

Ensuring that insurance risk is priced correctly and understood is an important component of managing insurance risk. This is achieved through the following measures:

- Rigorous and proactive risk management processes to ensure sound product design and accurate pricing, including:
  - independent model validation;
  - challenging assumptions, methodologies and results;
  - debating and challenging design, relevance, target market, market competitiveness and ensuring customers are treated fairly;
  - identifying potential risks;
  - monitoring business mix and mortality risk of new business; and
  - thoroughly reviewing policy terms and conditions.
- Risk policies sold to FNB's customers are underwritten. This allows underwriting limits and risk-based pricing to be applied to manage the insurance risk. Where specific channels introduce the risk of anti-selection, mix of business by channel is monitored. On non-underwritten products, insurance risk can be controlled through lead selection for outbound sales.
- Pricing for comprehensive products (which include buildings and portable possessions), is risk-based and considers various underwriting factors that differentiate the level of risk across policyholders which enables appropriate risk management. There are also various underwriting limits in place to mitigate against undesirable risk types. On non-underwritten products, insurance risk can be controlled through lead selection for outbound sales.
- The design of appropriate reinsurance structures is an important component of the pricing and product design to keep risk exposure within appetite.

The assessment and management of the insurance risk in the in-force book uses the following methodologies, including advisory and mandatory actuarial methodologies:

- Insurance risk is managed through monitoring and reporting the frequency and severity of claims by considering incidence rates, claims ratios and business mix.
- For the life business, the actuarial valuation process involves the long-term projection of in-force policies and the setting up of insurance liabilities. This gives insight into the longer-term evolution of the risks on the portfolio. Short-term insurance liabilities comprise an outstanding claims reserve, an unearned premium reserve and an incurred but not reported reserve. Adequate reserves are set for future and current claims and expenses. Where actual benefits are different from those originally estimated, actuarial models and assumptions are updated to reflect this. This is fed back into pricing.
- There are also reinsurance agreements in place to mitigate various insurance risks and manage catastrophe risk.
- Asset/liability management is performed to ensure that assets backing insurance liabilities are appropriate and liquid.
- Stress and scenario analyses are performed to provide insights into the risk profile and future capital position.

The management of insurance risk is governed by several policies and there are processes, tools and systems in the business to assess and manage insurance risk.

The ORSA is defined as the entirety of the processes and procedures employed to identify, assess, monitor, manage and report on short- and long-term risks that FirstRand Insurance Holdings faces or might face, and to determine the own funds necessary to ensure that overall solvency needs are met at all times and are sufficient to achieve its business strategy. An ORSA report is produced annually.

Refer to the *Capital management* section for information on capital for insurance activities.

MODEL RISK

Introduction and objectives

The use of models causes model risk, which is the potential for adverse consequences from decisions based on incorrect or misused model outputs and reports. Model risk can lead to financial losses, poor business and strategic decision-making, or damage to the group's reputation.

The group recognises two types of model risk:

Intrinsic model risk – the risk inherent in the modelling process, which cannot be directly controlled but can be appropriately mitigated. Examples of intrinsic model risk drivers include model complexity, availability of data and model materiality.

Incremental model risk – the risk caused by inadequate internal practices and processes, which can be actively mitigated through, for example, quality model documentation, robust governance processes and a secure model implementation environment.

A model is defined as a quantitative method, system or approach that applies statistical, economic, financial or mathematical theories, techniques and assumptions to process input data into quantitative estimates. A model generally consists of three components:

- the information input component, which delivers assumptions and data to the model;
- the processing component, which transforms inputs into estimates; and
- the reporting component, which translates the estimates into useful business information.

Model risk exists as models may have fundamental errors and produce inaccurate outputs when assessed against the design objective and intended business use. Model risk may also arise as a result of model results being used incorrectly or inappropriately.

YEAR UNDER REVIEW AND FOCUS AREAS

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> Further developed and implemented model risk management frameworks and supporting standards, guidance and governance structures for advanced analytics, including artificial intelligence and machine learning. > Completed rollout of model risk manager software to credit risk application scorecards. > Commenced rollout of model risk manager software for financial crime, Group Treasury and advanced analytics models.	> Finalise and embed frameworks, standards, guidance and supporting governance structures for advanced analytics, including artificial intelligence and machine learning. > Extend the scope of model risk reporting beyond that required for BCBS 239 compliance.

Organisational structure and governance

MODEL RISK GOVERNANCE STRUCTURE

FIRSTRAND BOARD

RCCC — Reviews reports on the adequacy and robustness of model risk management.

MODEL RISK AND VALIDATION COMMITTEE

- Considers and approves material aspects of model validation work including:
  - credit risk capital models, credit ratings and estimations;
  - IMA model for market risk;
  - AMA operational risk model; and
  - economic capital models.
- Monitors implementation of model risk management principles and model risk management framework for credit, market, operational and other risks.

The model risk management framework for credit, market, operational and other risks prescribes the roles and responsibilities across the model life cycle and risk sensitive model governance and validation requirements.

Committee	Responsibilities
RETAIL AND SME RETAIL CREDIT TECHNICAL COMMITTEE WHOLESALE AND SME CORPORATE CREDIT TECHNICAL COMMITTEE	Review and approve credit risk models for: > application and behavioural scorecards; > provisioning and impairment; > regulatory and economic capital; and > stress testing.
MARKET RISK TECHNICAL COMMITTEE	Reviews and approves IMA market risk quantitative models, including models for instrument valuation, curve construction, and regulatory and economic capital.
OPERATIONAL RISK TECHNICAL COMMITTEE	Validates AMA capital model annually and performs additional validation of model changes.
OTHER RISK TECHNICAL COMMITTEE	Reviews and approves economic capital for business risk, other asset risk, model risk, insurance risk and post-retirement and medical aid risk.
GROUP TREASURY MODEL RISK TECHNICAL COMMITTEE	Reviews and approves Group Treasury models, including interest rate risk and foreign exchange risk in the banking book, liquidity risk, securitisation risk, funds transfer pricing and associated economic capital.
FINANCIAL CRIME TECHNICAL COMMITTEE	Reviews and approves all models used in the identification, assessment and management of financial crime risk.

ERM	Independent validation of credit risk, market risk and counterparty credit risk models, ownership of model risk management frameworks and production of model risk reports.
GIA	> Independent assurance of credit and market risk models. > Independent validation of operational risk and economic capital models.

Assessment and management

The level of model risk related to a particular model is influenced by model complexity, uncertainty about inputs and assumptions, and the extent to which the model is used to make financial and strategic decisions. The risks, from individual models and in aggregate, are assessed and managed. Aggregated model risk is affected by interaction and dependencies among models, reliance on common assumptions, data or methodologies, and any other factors that could adversely affect several models and their outputs simultaneously. As an understanding of the source and magnitude of model risk is key to effective management of the risk, model risk management is integrated into the group's risk management processes.

Various principles are applied in the model risk management process. Risk owners assess which of these principles are applicable to a specific model and determine levels of materiality for model evaluation and validation.

MODEL RISK MANAGEMENT PRINCIPLES

DATA AND SYSTEMS	DEVELOPMENT	TESTING AND VALIDATION	MONITORING	GOVERNANCE
> Use systems that ensure data and reporting integrity. > Use suitable data. > Maintain master list of field data. > Implement appropriate system controls. > Assess data quality.	> Document model design, theory and logic which is supported by published research and industry practice. > Ensure expert challenge of methods and assumptions. > Ensure appropriate conservatism.	> Provide independent validation. > Review documentation, empirical evidence, model construction assumptions and data. > Perform sensitivity analysis. > Perform stress testing. > Obtain independent assurance from GIA.	> Perform regular stress testing and sensitivity analysis. > Perform quantitative outcome analysis. > Perform backtesting and establish early warning metrics. > Assess model limitations. > Set and test error thresholds. > Test model validity.	> Provided by three lines of control. > Approve model risk management framework. > Ensure effective management. > Ensure approval committees with adequate skills. > Ensure appropriate documentation.

Model risk measurement

A scorecard with risk factors based on model risk management principles is used for model risk measurement and quantification of capital. Intrinsic model risk and incremental model risk are assessed and tracked separately, then combined to obtain overall model risk scorecards. The scorecard is tailored for each risk type by applying risk type-specific weightings to each scorecard dimension and by refining the considerations for each dimension to be specific to that risk type.

Each regulatory capital and economic capital model is rated using the model risk scorecard and assigned an overall model risk rating of low, medium or high. These ratings are used to determine the model risk economic capital add-on multiplier, which is applied to the output of capital models to determine the amount of model risk economic capital to be held.

TAX RISK

Introduction and objectives

Tax risk is defined as the risk of:

- financial loss due to the final determination of the tax treatment of a transaction by revenue authorities being different from the implemented tax consequences of such a transaction, combined with the imposition of penalties;
- the sanction or reputational damage due to non-compliance with the various revenue acts; and/or
- the inefficient use of available mechanisms to benefit from tax dispensations.

Accordingly, any event, action or inaction in an entity's strategy, operations, financial reporting or compliance that either adversely affects its tax or business position, or results in unanticipated penalties, assessments, additional taxes, harm to reputation, lost opportunities or financial statement exposure, is regarded as tax risk.

FirstRand's long-term strategic objective is to deliver superior and sustainable economic returns to shareholders within acceptable levels of volatility and maintain balance sheet strength. The group's tax strategy is aligned with these principles. A variety of local and international taxes arise in the normal course of business, including corporate income taxes, employees' taxes, value-added taxes, securities transfer taxes, stamp duties, customs duties and withholding taxes.

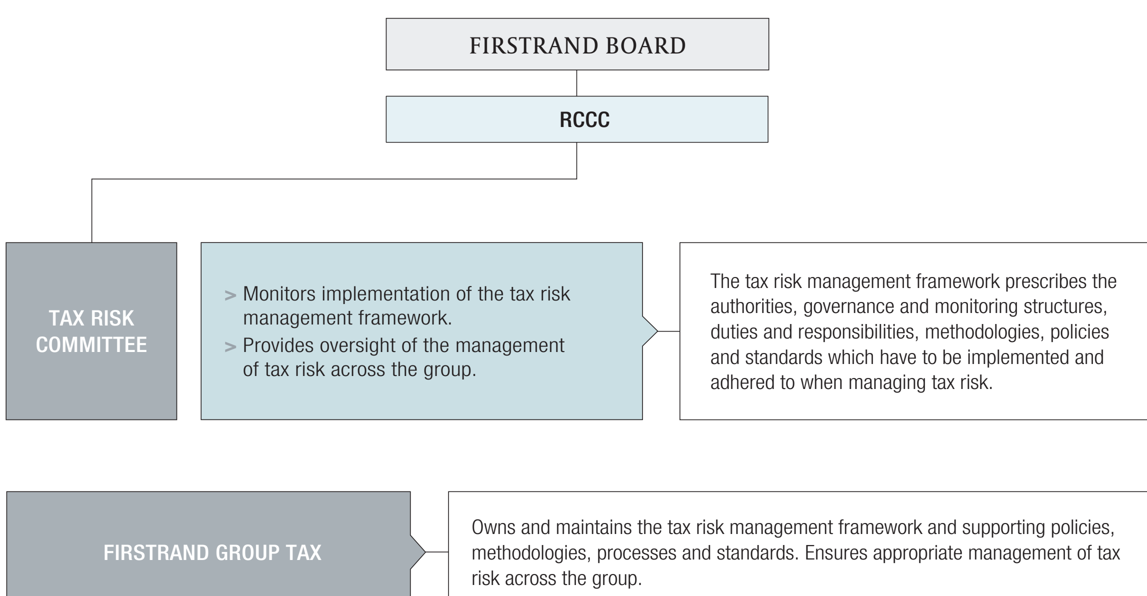
FirstRand Group Tax (FRGT) is mandated by the FirstRand tax risk committee to manage the group's tax risks. The group is committed to complying with all taxation laws, influencing tax policy, legislation and practice; developing and implementing value-adding initiatives in a responsible manner; and maintaining effective relationships with all stakeholders. It is imperative that the group demonstrates integrity in the way it conducts business, and FirstRand commits to being responsible and accountable in managing tax risk.

Organisational structure and governance

The head of FRGT takes ultimate responsibility for tax risk management for all taxes on a group-wide basis. The responsibility at a business/entity level lies with the CEO and CFO of the relevant business or entity. They are responsible for keeping tax-related risks at an acceptable level. To enable the various businesses/entities to fulfil their tax risk management responsibilities, FRGT has deployed a team of tax specialists to fulfil an advisory role regarding tax issues arising within the various businesses/entities.

Tax risks are reported periodically to the RCCC, which is responsible for the management and monitoring of tax risks, and ultimately reported to the board, which is responsible for the group's business tax strategies and outcomes.

TAX RISK GOVERNANCE STRUCTURE



Assessment and management

Tax risk management is the systematic approach to proactively identify, evaluate, manage and report on tax risks and data quality risks (as far as the relevant tax data is under the control of FRGT) within the agreed and acceptable parameters to facilitate the group's tax strategy.

The group engages in efficient tax planning that supports business and reflects commercial and economic activity. The tax laws in all the jurisdictions in which the group operates are fully complied with and the risk of uncertainty or disputes is minimised. Transactions between group entities are conducted on an arm's-length basis and in accordance with the current Organisation for Economic Cooperation and Development (OECD) principles. Where tax incentives or exemptions exist, the group seeks to apply them responsibly in the manner intended by governments and fiscal authorities. FirstRand establishes entities in jurisdictions suitable to hold its offshore operations, considering the business activities and the prevailing regulatory environments in those jurisdictions.

The group seeks to build sustainable working relationships with governments and fiscal authorities, based on mutual respect. Where possible, FRGT works in conjunction with fiscal authorities to resolve disputes and engage with governments on the development of tax laws. FirstRand is committed to the principles of openness and transparency to build trust between the group and fiscal authorities and to align the group with the various systems of tax collection. Tax risk management forms part of the group's overall internal control processes. Responsibility and accountability for the group's tax affairs are clearly defined in the tax risk management framework.

The group is responsible for ensuring that policies and procedures which support the tax risk management framework are in place, monitored and applied consistently in all operations, and that the group's tax team has the skills and experience to implement these appropriately. In this regard, external tax risks arising from legislative and regulatory changes are actively managed, as are internal tax risk, comprising compliance and operational risks. Management oversight also includes controls over compliance processes which are implemented, with their effectiveness being monitored on an ongoing basis.

REGULATORY ENVIRONMENT

The regulatory bodies, industry associations and frameworks to which the group subscribes from a tax perspective and complies with are listed below.

BASA and South African Revenue Service (SARS)	FirstRand is a member of BASA, which has a tax committee that promotes discussions on tax issues relating to the various South African revenue acts, advocates for tax reforms, and ensures that the regulatory and supervisory framework addresses relevant issues. BASA has entered into an accord with SARS which sets out the respective parties' expectations to ensure tax compliance. The group complies with this accord.
UK Code of Practice on Taxation for Banks	The group subscribes to this code to ensure compliance of the bank's London branch and Aldermore with the law on tax matters in the UK.
Base erosion and profit shifting (BEPS) recommendations	The group files country-by-country reports in accordance with the BEPS recommendations issued by the OECD to address the weaknesses in the international tax system.
Foreign Account Tax Compliance Act (FATCA) and Common Reporting Standard (CRS)	FATCA and CRS submissions are submitted to aid in the exchange of information amongst revenue authorities globally to combat offshore tax evasion. Group entities submit the returns to their local revenue authorities on an annual basis as prescribed under tax administration laws, in compliance with FATCA and CRS. In instances where local laws have not yet incorporated FATCA and CRS, reports are submitted directly to the United States Internal Revenue Service.
Mandatory disclosure rules	BEPS Action 12 contains recommendations regarding the design of mandatory disclosure rules by financial institutions for aggressive tax planning schemes and the circumvention of tax reporting regimes, as well as the promoters and users of such schemes. Where applicable and where required, group entities submit returns to their local revenue authorities as prescribed under tax administration laws.
UK Criminal Finances Act 2017	The group has appropriate systems and controls to prevent the facilitation of tax evasion/fraud and the circumvention of tax reporting, by any person (employee, third party or associated person) acting on behalf of group entities. Where applicable and where required, group entities submit returns to their local revenue authorities as prescribed under tax administration laws or anti-money laundering laws.

OPERATIONAL RISK

Introduction and objectives

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

The group continually evaluates and enhances its existing operational risk management frameworks, processes and systems to ensure that its practices are adequate and effective, and aligned to business needs, regulatory developments and best practice.

OPERATIONAL RISK OBJECTIVES AND PROGRAMME

KEY OBJECTIVES

> The group's objective is to build an effective and forward-looking operational (including IT) risk management programme to support the group in the execution of its strategy in the context of current and emerging risk exposures.

- Automate, digitise and simplify operational risk processes for greater efficiency, simplicity and business value.
- Prioritise risk management efforts on key areas through enhanced operational risk analysis.
- Provide forward-looking and dynamic operational risk management information for use in business decision-making.
- Enhance vendor risk management discipline.
- Develop a holistic approach to operational resilience using the processes developed and lessons learnt from the management of the Covid-19 pandemic.
- Enhance operational risk management training within the organisation.
- Assess the impact of operational risk-related regulatory developments and ensure compliance that results in business and risk management value.
- Proactively drive combined assurance efforts with the assurance community.

OPERATIONAL RISK MANAGEMENT PROGRAMME COMPONENTS

> Establish, review and implement operational risk management framework and policies.

> Develop and maintain operational risk management tools and processes (including risk identification, assessment and quantification).

> Operational risk analytics and capital.

> Operational risk management systems and management information.

> Operational risk projects/initiatives.

> Operational risk governance and reporting.

> Operational risk management advisory and support services to business.

YEAR UNDER REVIEW AND FOCUS AREAS

The group's operational resilience response to the pandemic was well embedded during the year under review and matured to a risk-adjusted response incorporating health and safety impact analysis, supply chain and business continuity management, compliance with new and rapidly changing regulations, internal policy, process and protocol development, and risk monitoring and reporting to internal and external stakeholders on an ongoing basis. In addition, FirstRand is an active participant in industry forums to support industry-wide responses to the pandemic.

The group has supported a blended working model for the majority of staff who are able to perform their duties remotely. Ongoing reviews of the control environment were performed throughout the past 12 months. The group is cognizant of the impact of the prolonged pandemic on its people and is paying heightened attention to people risk (inclusive of employee wellbeing) and its potential impact on the control environment.

The maintenance of a robust control environment and change management discipline in the context of the rapidly changing business environment due to execution of the group's platform strategy, remained a key focus. Risk management is involved and input sought when controls, processes and systems require change or adaptation to enable transition to platform.

The group met its business-as-usual commitments and continued oversight of ongoing control improvement initiatives. The progress on these initiatives and impact on the operational risk profile are tracked and reported on regularly at business and group level through management and combined assurance and risk governance processes. This is also considered in setting operational risk appetite and risk scenarios. Risk management programmes are continuously reviewed and enhanced to focus on identified key and emerging risks based on changes in the internal and external environment.

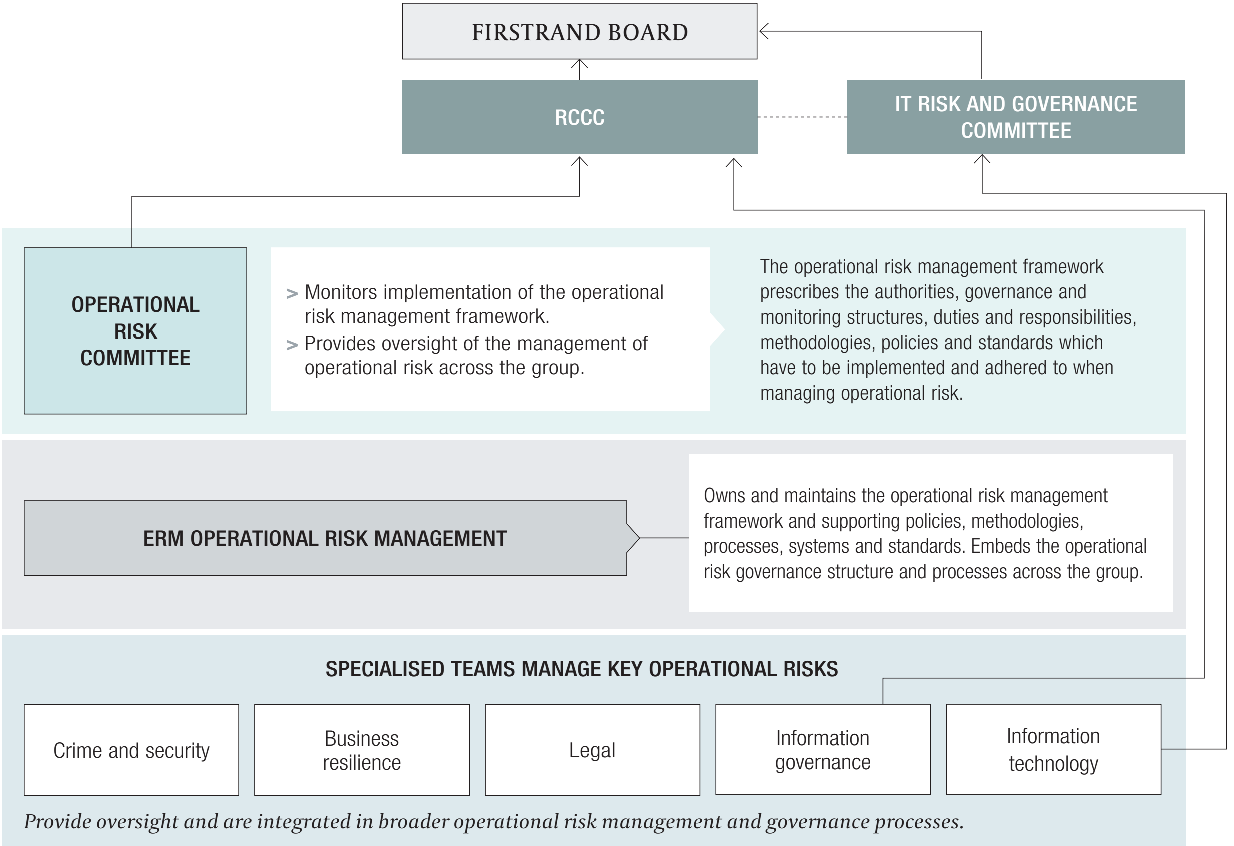
The principal operational risks currently facing the group are:

- **business continuity risk** due to future waves of the pandemic;
- **cyber-risk** (including information security), given the growing sophistication of cyberattacks both locally and globally;
- **technology risk** due to the pace of technology change and increasing digitisation;
- **payment risk** due to the manual nature of certain payment processes, the associated change management risk due to the redesign of payment processes for greater automation and control enhancements, as well as ongoing regulatory change;
- **vendor risk** due to lack of direct control over external service providers;
- **people risk** due to the impact of the prolonged pandemic on the physical and emotional wellbeing of employees over time, and potential employee non-adherence to health and safety protocols in the workplace; and
- **execution, delivery and process management risk** (risk of process weaknesses and control deficiencies) as the business continues to employ a risk-adjusted approach through the blended working model while still trying to grow and evolve the business under tough economic conditions.

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> Coordinated the group's successful operational resilience response to the pandemic in light of staff well-being and regulatory requirements. > Achieved full compliance with BCBS 239 for operational risk data aggregation and risk reporting. > Enhanced the operational risk system functionality for improved risk information and greater process automation, reporting and analysis. > Embarked on a formal programme to review payment risk from a people, process and system perspective. > Rolled out a number of wellbeing-related initiatives to reduce the effect of the pandemic on employees. > Improved maturity in the management of information and cybersecurity and IT risk management and governance discipline. > Established a vendor risk committee, rolled out a vendor risk monitoring tool and established risk management processes across the life cycle. > Continued process (business and operational risk) automation to reduce manual processes and improve controls. > Continued to review, test and align risk mitigation strategies to combat cybercrime and ensure that controls are adequate and effective. > Drove continued improvement in data quality, metadata and records management practices.	> Ongoing enhancement and test scenario-based cyber incident response plans. > Embed a disciplined approach to the risk assessment and management of vendors across the vendor life cycle. > Leverage the group's data and digital capabilities optimally for efficient and effective operational risk identification, assessment, management and reporting. > Implement an updated risk taxonomy that takes cognizance of emerging and evolving risks as a combined assurance initiative. > Embed BCBS 239 compliance. > Prioritise operational risk management activities to support execution of strategy and strengthen key controls. > Continue to assess the risks inherent in increasing digitisation and innovative business solutions and facilitating management thereof. > Align IT and related frameworks with changing business models and the technology landscape. > Focus on holistic operational resilience. > Improve information management capabilities and the control environment, and roll out awareness programmes on records management, data quality and data privacy management.

Organisational structure and governance

OPERATIONAL RISK GOVERNANCE STRUCTURE



Note: Vendor risk management is considered a key operational risk in respect of which appropriate governance structures are in the process of being established to assist the operational risk committee in the oversight of management of this risk type.

Measurement of operational risk

BASEL APPROACHES

FirstRand applies **AMA** for domestic operations. Other entities continue to use **TSA** for operational risk. All previously unregulated entities that now form part of FRIHL, FirstRand Investment Management Holdings, as well as Aldermore follow **BIA**.

Under **AMA**, FirstRand uses a sophisticated statistical model for the calculation of capital requirements, which enables a more accurate risk-based measure of capital for business units on AMA. Operational risk scenarios (covering key risks that, although low in probability, may result in severe losses) and internal loss data are direct inputs into this model.

Scenarios are derived through an extensive analysis of the group's operational risks in consultation with business and risk experts from across the group. Scenarios are cross-referenced to external loss data, internal losses, key risk indicators, process-based risk and control identification and assessments, and other pertinent information about relevant risk exposures. To ensure ongoing accuracy of risk and capital assessments, all scenarios are reviewed, supplemented and/or updated semi-annually, as appropriate.

The loss data used for risk measurement, management and capital calculations are collected for all seven Basel event types across various internal business lines. Data collection is the responsibility of business units and is overseen by the operational risk management team in ERM.

The modelled operational risk scenarios are combined with modelled loss data in a simulation model to derive the annual, aggregate distribution of operational risk losses. Basel Pillar 1 minimum capital requirements are then calculated (for the group and each operating business) as the operational VaR at the 99.9^{th} percentile of the aggregate loss distribution, excluding the effects of insurance, expected losses and correlation/diversification.

Capital requirements are calculated for each business using the AMA capital model, and then allocated to legal entities in the group based on gross income contribution ratios. This split of capital between legal entities is required for internal capital allocation, regulatory reporting and performance measurement purposes.

TSA and **BIA** capital calculations are based on a multiplication factor applied to gross income, as specified by Basel and PA regulations. These capital calculations and allocations do not make use of any risk-based information.

Business practices evolve continually and the operational risk control environment is, therefore, constantly changing to reflect the underlying risk profile. The assessment of the operational risk profile and exposures and associated capital requirements take the following into account:

- changes in the operational risk profile, as measured by the various operational risk tools and processes;
- emerging risks and the associated actual or potential impact on the operational risk profile;
- material effects of expansion into new markets and new or substantially changed products, systems or activities, as well as the closure of existing operations;
- changes in the control environment – the group targets a continued improvement in the control environment, but deterioration in effectiveness is also possible due to, for example, unforeseen increases in transaction volumes or pace of change;
- changes in organisational structure resulting in the movement of businesses and/or products from one business area to another; and
- changes in the external environment, which drive certain types of operational risk (e.g. pandemic, unrest and protest actions, electricity supply shortages, increasing unemployment, etc.).

Assessment and management

OPERATIONAL RISK ASSESSMENT AND MANAGEMENT TOOLS

The group obtains assurance that the principles and standards in the operational risk management framework are adhered to by the three lines of control model, which is integrated in operational risk management. In this model, business units own the operational risk profile as the first line of control. In the second line of control, ERM is responsible for consolidated operational risk reporting, policy ownership and facilitation, and coordination of operational risk management, measurement and governance processes. GIA, as the third line of control, provides independent assurance on the adequacy and effectiveness of operational risk management processes and practices.

In line with international best practice, a variety of tools are employed and embedded in the assessment and management of operational risk. The approach to the implementation of these tools is reviewed on an ongoing basis to ensure that business value is delivered. The most relevant of these are outlined in the following chart.

OPERATIONAL RISK ASSESSMENT AND MANAGEMENT TOOLS

PROCESS-BASED RISK AND CONTROL IDENTIFICATION AND ASSESSMENT	KEY RISK INDICATORS
> The risk and control assessment per product/service based on key business processes. > Integrated in day-to-day business and risk management processes. > Used by business and risk managers to identify and monitor key risks and assess effectiveness of existing controls.	> Used across the group in all businesses as an early warning risk measure. > Highlight changing trends in exposures to specific key operational risks. > Inform operational risk profiles which are reported periodically to the appropriate management and risk committees, and are monitored on a continuous basis.
INTERNAL/EXTERNAL LOSS DATA	**RISK SCENARIOS**
> Capturing internal loss data is a well-entrenched discipline within the group. > Internal loss data reporting and analyses occur at all levels with specific focus on root causes, process analysis and corrective action. > External loss databases are used to learn from the loss experience of other organisations and are also an input into the risk scenario process.	> Risk scenarios are widely used to identify and quantify low-frequency, extreme-loss events. > Senior management actively participates in the risk scenario thematic deep-dives and the overall scenario reviews. > Results are tabled to the appropriate risk committees and are used as input into the capital modelling process.

FirstRand uses an integrated and reputable operational risk system in which all operational risk assessment and management tools have been automated to provide a holistic view of the outputs of the group's operational risk tools.

OPERATIONAL RISK EVENTS

As operational risk cannot be avoided or mitigated entirely, frequent events resulting in small losses are expected (e.g. external card fraud) and are budgeted for appropriately. Business units minimise these losses through improving relevant business and control practices and processes. Operational risk events resulting in substantial losses occur less frequently. The group strives to minimise these and limit their frequency and severity within its risk appetite levels through appropriate risk mitigation. Operational losses are measured and reported against the agreed operational risk appetite levels on a regular basis. The impact of remote working on the frequency and severity of operational events is monitored on an ongoing basis. Where appropriate, focused reviews are conducted to establish root causes of operational events and appropriate action plans are put in place to prevent or reduce the risk of reoccurrence, to the extent that is possible.

OPERATIONAL RISK MANAGEMENT PROCESSES

A number of key risks exist for which specialised teams, frameworks, policies and processes have been established and integrated into the broader operational risk management and governance programmes, as described in the following diagram.

KEY SPECIALIST RISK AND MANAGEMENT PROCESSES

	BUSINESS RESILIENCE	LEGAL	IT
Management	> Operations should be resilient enough to withstand severe disruptions from internal failures or external events. > Business continuity strategies include regular review of business continuity plans (including disaster recovery plans) and testing. > Disruptions or incidents are assessed and reported to the relevant risk stakeholders.	> Creation and ongoing management of contractual relationships. > Management of potential and actual disputes and/or litigation. > Protection and enforcement of property rights (including intellectual property). > Accounting for the impact of law or changes in the law as articulated in legislation or decisions by the courts.	> Protection of information systems against unauthorised access, destruction, modification and use. > Ensuring confidentiality, availability and integrity of systems that maintain, process, store and disseminate this information. > Systems are continually assessed for vulnerabilities and reported to relevant risk and business stakeholders.
Committees and frameworks	> Business resilience governance committee (subcommittee of the operational risk committee). > Practices are documented in the business resilience policy and standards.	> Compliance with legislation managed by Group Compliance. > Legal risk committee (subcommittee of operational risk committee), and subcommittees of the legal risk committee. > Legal risk management framework and subframeworks and policies.	> Information technology risk and governance committee (board committee). > IT governance framework, IT policies and information security policy.

	VENDOR RISK	CRIME AND SECURITY	RISK INSURANCE
Management	> Vendor risk management oversight. > Implementation of risk-based approach to vendor risk management with focus on key vendors across the group. > Ensuring compliance to applicable regulatory and legislative requirements as they relate to vendors. > Regular and *ad hoc* risk assessments of key vendors.	> Covers internal and external organised/financial crime, and physical security. > Contains criminal losses with enhanced controls and real-time detection models leveraging machine learning. > Mitigates the evolving and emerging financial, organised, cybercrime and cybersecurity threat using an integrated approach across multiple disciplines with a focus on cyber-resilience.	> Structured risk insurance financing programme in place for material losses from first-party risks. > Insurance refined through risk profile assessment, change in group strategy or markets. > Cover for professional indemnity, directors' and officers' liability, crime, public/general liability and assets, amongst others.
Committees and frameworks	> Vendor risk committee (subcommittee of the operational risk committee). > Vendor risk management framework. > Cloud governance committee (subcommittee of the vendor risk committee) and cloud policy.	> Integrated crime management framework and protective security framework.	> Cover through FRISCOL, the group's wholly owned first-party insurance company.

RISK INSURANCE

The group has a structured risk insurance financing programme in place, which has been developed over many years, to protect the group against unexpected material losses arising from non-trading risks. The programme is designed, where appropriate, to complement the risk management strategy to protect against the identified risks which can affect the group's financial performance or position and, therefore, negatively affect shareholder value.

The risk insurance programme is continually refined through ongoing assessment of changing risk profiles, organisational strategy and growth, and international insurance markets. The levels and extent of insurance cover are reviewed and benchmarked annually.

The group's insurance-buying philosophy is to self-insure as much as is economically viable in line with its risk appetite, and to only protect itself against catastrophic risks through the use of third-party (re)insurers.

The insurance programme includes, *inter alia*, cover for operational risk exposures, such as professional indemnity, directors' and officers' liability, crime, public and general liability, assets, etc. This protection extends across the group and into the subsidiaries in the rest of Africa and the UK where legislation allows. The group does not consider insurance as a mitigant in the calculation of capital for operational risk purposes.

COMPLIANCE AND CONDUCT RISK

Introduction and objectives

The group fosters a compliance culture which aims to follow both the spirit and the letter of applicable legislation and regulations. The group therefore seeks to prevent its platforms from being abused for the purposes of financial crime. It will not accept wilful and deliberate non-compliance. Where unintended failures result in non-compliance, the focus is on implementing remedial action.

Compliance risk refers to the risk of non-compliance and related legal or regulatory sanctions and material financial loss and/or damage to the group's reputation.

Conduct risk includes risks associated with delivery of fair customer outcomes and the integrity and efficiency of financial markets. From a regulatory perspective, conduct risk also refers to the risk of non-compliance with conduct standards and related regulatory requirements.

Financial institutions operate on the basis of trust, and ethical conduct in the financial system is critical. Increasingly governments and regulators are implementing multiple policy and regulatory requirements to enforce standards and hold business leaders accountable for their actions. The group expects ethical behaviour from its people that contributes to its overall objective of prudent regulatory compliance and risk management. This is achieved through providing financial products and services in a responsible manner and treating customers fairly. The group embraces standards of integrity and ethical conduct.

The group's compliance function is tasked with the management of compliance obligations, which include regulatory and conduct requirements. Group compliance assists management and business in discharging their responsibilities to comply with applicable regulatory requirements and to effectively and expeditiously resolve identified non-compliance matters.

COMPLIANCE AND CONDUCT RISK MANAGEMENT OBJECTIVE AND APPROACH

OBJECTIVE

Ensure business practices, policies, frameworks and approaches across the group are consistent with applicable laws and that regulatory and conduct risks are identified and proactively managed.

APPROACH

- Maintain an effective and efficient regulatory and conduct risk management framework with sufficient operational capacity to assess financial products and services against fair market conduct principles, and promote and oversee compliance with legislative and best practice requirements.
- Ensure appropriate policies, standards and processes are in place to mitigate risk of abuse of the group's platforms for unlawful purposes.
- Promote training, learning and development to ensure a high level of understanding and awareness of legal and regulatory frameworks applicable to the group's business activities.
- Coordinate regulatory interactions with various regulators across multiple jurisdictions.

Compliance with laws and related regulatory requirements is critical. Non-compliance may result in serious consequences and lead to both civil and criminal liability, including penalties, claims for losses and damages, and restrictions imposed by regulatory authorities.

Applicable laws and related requirements include:

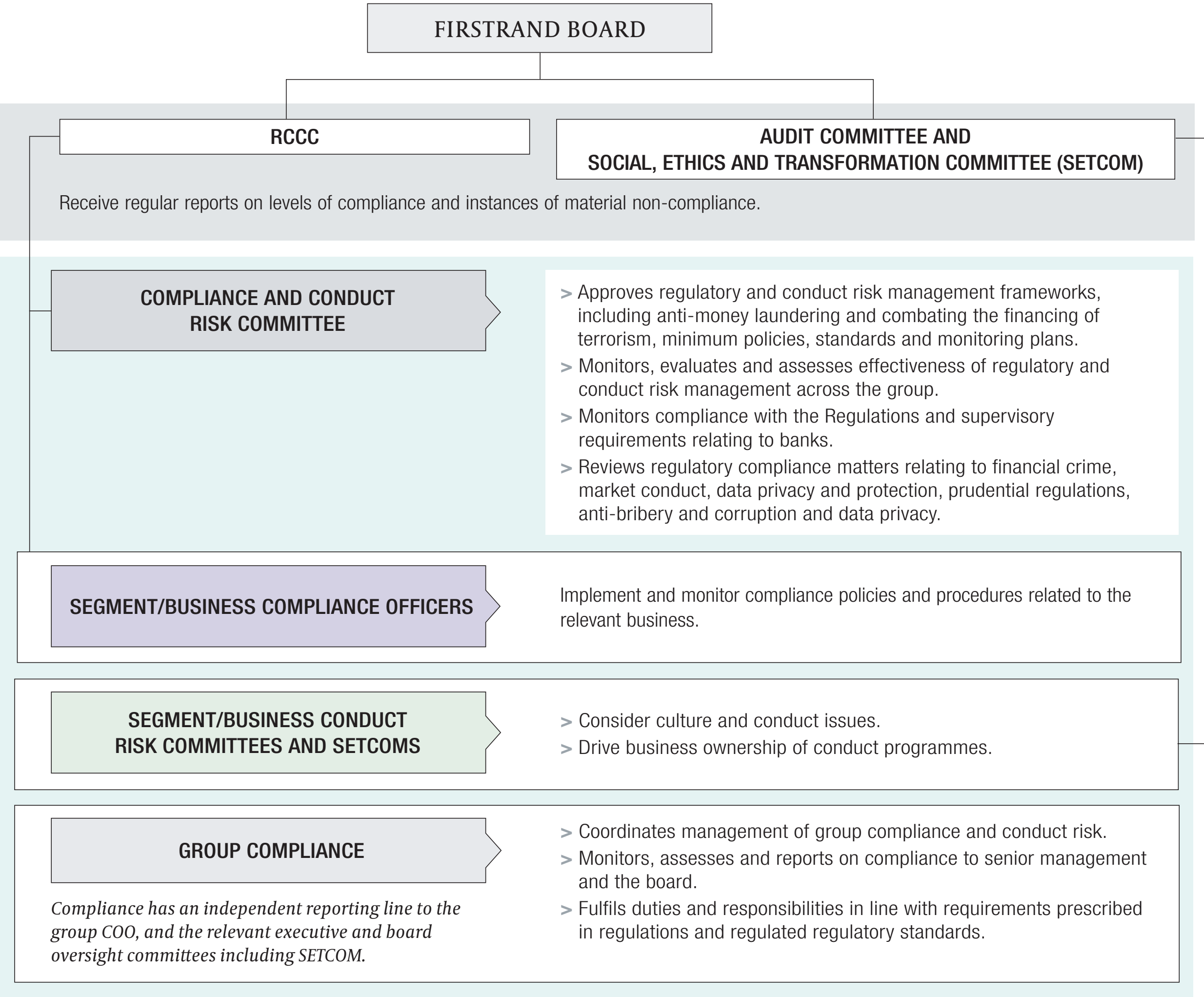
- Financial Sector Regulation Act, 2017
- Banks Act, 1990
- Companies Act, 2008
- Competition Act, 1998
- Collective Investment Schemes Control Act (CISCA), 2002
- Financial Intelligence Centre Act (FICA), 2001
- Insurance Act, 2017
- Long-term Insurance Act, 1998
- Short-term Insurance Act, 1998
- Financial Advisory and Intermediary Services (FAIS) Act, 2002
- National Credit Act (NCA), 2005
- Consumer Protection Act, 2008
- Financial Markets Act (FMA), 2012
- Foreign Account Tax Compliance Act, 2010
- Protected Disclosures Act, 2000
- Protection of Personal Information Act (PoPIA), 2013
- Prevention and Combating of Corrupt Activities Act (PRECCA), 2004
- Currency and Exchanges Act, 1933 and Exchange Control Regulations, 1961
- National Payment System Act, 1998
- King Code of Governance Principles for South Africa, 2016 (King IV)
- Legislation and rules related to listed instruments on various exchanges
- Statutory codes of conduct, standards, joint standards and other subordinate legislation issued by, among others, the Financial Sector Conduct Authority (FSCA) and the PA
- Applicable regulations and other regulatory instruments
- Applicable laws in the countries where the group operates in

YEAR UNDER REVIEW AND FOCUS AREAS

YEAR UNDER REVIEW	RISK MANAGEMENT FOCUS AREAS
> The PA and FSCA issued Joint Standard 1/2020 on the fitness, propriety and other matters related to significant owners, which took effect on 1 December 2020. The joint standard places specific reporting obligations on both significant owners and financial institutions and sets out the criteria for fit and proper considerations for significant owners. > The Regulations were amended during the year, with amendments to various regulations and Banks Act returns. > The Financial Stability Department of the SARB published a series of discussion documents focusing on key aspects of the operationalisation of CoDI. > A discussion paper, titled *Group structure reporting requirements for resolution planning,* was issued by the SARB and sets out criteria to identify resolution groups and future reporting requirements. > Anti-bribery and corruption risk assessments, primarily in public sector-related business and other prioritised areas, were performed. > Drove PoPIA implementation readiness for the 1 July 2021 compliance deadline and embedded General Data Protection Regulations (GDPR) compliance across businesses that were in scope.	> Cooperation with regulatory authorities and other stakeholders, including the implementation and embedment of the requirements of the phase 2 requirements of the Financial Intelligence Centre Amendment Act and International Funds Transfer Reporting. > Ongoing focus on enhancing the risk-based approach to financial crime risk management and completion of the second round of financial crime risk assessments. > South Africa was the subject of a Financial Action Task Force mutual evaluation during 2019 and it is anticipated that the final report, once finalised, could impact financial crime risk management programmes. > Focus on the mitigation of emerging risks relating to digitisation, including the ethical use of data in alignment with information governance and data privacy programmes. > Improvement and enhancement of the complaints management system to meet new regulatory requirements and improve service delivery.

Organisational structure and governance

REGULATORY AND CONDUCT RISK GOVERNANCE STRUCTURE



Group Compliance's mandate is to facilitate the management of compliance with statutes and regulations. To achieve this, Group Compliance implemented and maintained appropriate governance arrangements, including structures, policies, processes and procedures, to identify and facilitate the management of compliance obligations, regulatory and conduct risks. Group Compliance facilitates and monitors the management of these risks and reports on the level of compliance to the relevant boards and regulators. These include, among other:

> risk identification through determining which laws, regulations and supervisory requirements are applicable to the group;

> risk measurement and mitigation through training and the development and execution of risk management plans and related actions;

> risk monitoring and review of remedial actions through the monitoring centre of excellence;

> risk reporting; and

> providing advice on compliance matters.

Although independent of other risk management and governance functions, Group Compliance works closely with business units, GIA, ERM, external auditors, internal and external legal advisors, human capital, industrial relations and the company secretary's office to ensure effective functioning of compliance processes.

FirstRand's board subcommittees, which oversee compliance outcomes, periodically consider the adequacy and effectiveness of governance arrangements relating to the group's compliance functions, the objective of which is to monitor the adequacy and effectiveness of the relevant functions. The board receives independent assurance on the effectiveness of compliance from, among others, GIA, and receives feedback from regulatory authorities, from time to time.

Assessment and management

REGULATORY DEVELOPMENTS

As a member of the BCBS, the SARB and PA are committed to ensuring that the South African regulatory and legislative frameworks relating to the prudential regulation and supervision of banks, banking groups, licensed insurers, designated financial conglomerates and systemically important financial institutions remain compliant with international standards and best practice. Changes in international standards and requirements, such as the large volume of regulatory changes implemented subsequent to the 2008 global financial crisis, normally result in amendments to the South African prudential regulatory framework for banks and banking groups, most notably to the Regulations.

REGULATORY DEVELOPMENTS

FINANCIAL SECTOR REGULATION ACT AND BANKING LEGISLATION	The group continues to cooperate and collaborate with government, the regulatory authorities and relevant industry bodies in the consultation processes for the finalisation of financial sector laws, regulations and related regulatory instruments. Regulations are expected to be further amended in accordance with revised frameworks and requirements issued by the BCBS, a large number of which relate to the ongoing implementation of Basel III reforms. The FSCA issued the final Conduct Standard for Banks during July 2020. The standard, which forms the basis of the FSCA's regulation of the conduct of banks, has staggered effective dates between July 2020 and July 2021. National Treasury issued the second draft of the Conduct of Financial Institutions Bill for comment in September 2020. Comments were processed through various industry bodies, and workshops were facilitated by the FSCA and National Treasury. It is anticipated that a further draft of the Bill will be issued for comment prior to submission to Parliament for approval. The focus of the Twin Peaks system of financial regulation is to remain on strengthening the regulation and supervision of financial institutions as well as legal and regulatory frameworks with regards to financial stability and the conduct of financial institutions.
PROTECTION OF PERSONAL INFORMATION	The compliance deadline has been set for 1 July 2021. The group continues to devote attention and resources to security safeguards, processing and purpose specification of personal information, quality of personal information held, customer notification and consent, third-party processing of personal information and complaints handling. Various privacy laws apply in the different jurisdictions in which the group operates, most notably the GDPR. Ongoing monitoring of compliance to GDPR requirements are in place.
FINANCIAL CRIME RISK MANAGEMENT	The group's objective is to ensure compliance with the provisions of AML/CFT legislation, FICA and other requirements to enable an integrated financial crime risk management approach. The group's anti-bribery and corruption (ABC) programme seeks to prevent bribery and corruption in its operation and business dealings, and to ensure compliance with local and global ABC regulatory requirements. Oversight takes place of the ongoing management of the group's automated screening, monitoring and reporting tools, including the implementation of the GOAML interface with the Financial Intelligence Centre.
MARKET CONDUCT	The market conduct regulatory landscape continues to evolve rapidly. FirstRand continues to participate in industry and regulatory discussions regarding the Conduct of Financial Institutions Bill, FAIS Act and Insurance Act amendments, OTC derivatives, the financial markets review and open finance. Key focus areas include product design, pricing, remuneration, customer education, financial products provided to low-income customers, unfair terms and conditions, unfair penalty fees, dormant accounts, debit order abuse, vulnerable customers and complaints management. The group continues to monitor and track compliance with fit-and-proper requirements and new debarment processes, and credit life.
NATIONAL CREDIT ACT	FirstRand continues to participate in discussions and position papers on the National Credit Act, the Consumer Protection Act and the Home Loan and Mortgage Disclosure Act at industry level. Key focus areas include consumers and their rights in the credit market and relating to consumer goods and services, i.e. no discrimination, full information disclosure, timely statements, credit profile reporting and consumer complaints process. There is ongoing focus on all NCA-related issues, including simplifying the manner in which information is disclosed in credit agreements, offering consumers access to affordable credit and providing assistance to over-indebted consumers by restructuring their debt.
INSURANCE REGULATION	The insurers continue to focus on the implementation and embedding of the Insurance Act and the Policyholder Protection Rules. During the year under review, the FSCA issued various papers including the exemption for intermediaries for collection of insurance premiums and guidance on treatment of policies during the lockdown period. There is ongoing focus on ensuring that all claims are paid appropriately and efficiently, with specific emphasis on claims arising from the effects of lockdown (credit life and death claims).

COMPLIANCE RISK MANAGEMENT

The group continually monitors the regulatory environment and responds appropriately to changes and developments. Appropriate risk management processes and programmes are employed in response to regulatory developments and requirements as follows:

- Promote risk-informed and efficient utilisation of resources, including investments made in people, systems and processes, to effectively manage risks emanating from the increasing number of new and/or amended local and international regulatory requirements.
- Drive a customer-centric, business-led approach to treating customers fairly.
- Work closely with regulators and industry on the authenticated collections project, the main objective of which is to prevent debit order abuse.
- Manage risks associated with illicit cross-border flows, and emerging financial crime threats and vulnerabilities arising from new threat vectors.
- Review market conduct maturity and associated platform developments, including implementation of conduct standards for banks and overseeing employee activity in financial markets via the group's personal account trading programme.
- Strengthen anti-bribery and corruption risk management across the business.
- Enhance the AML/CFT control environment of the group.
- Refine frameworks, policies and standards for currencies and exchange and data privacy.
- Drive automation and scale the use of technology and advanced analytics for purposes of identifying regulatory and conduct risks, and the creation of bespoke interventions.
- Review risk appetite statements and key risk indicators.

CONDUCT RISK MANAGEMENT

In support of a sound risk culture, the group manages conduct risk programmes with appropriate levels of employee training and communication to ensure responsible conduct. The market conduct programmes include retail market conduct, wholesale market conduct, ethical trading in financial markets, credit and consumer protection practices and responsible competitive practices.

OTHER RISKS

STRATEGIC RISK

Risk to current or prospective earnings arising from inappropriate business models, decisions or improper implementation of such decisions.

Any business runs the risk of choosing an inappropriate strategy or failing to execute its strategy appropriately. The group aims to minimise this risk in the normal course of business.

Strategic risk is not a readily quantifiable risk and not a risk that a company can or should hold a protective capital buffer against. The development and execution of strategy is the responsibility of the group's strategic executive committee and the individual business areas, subject to approval by the board. This includes the approval of any subsequent material changes to strategic plans, budgets, acquisitions, significant equity investments and new strategic alliances.

Executive management, as well as Group Treasury and ERM, review the external environment, industry trends, potential emerging risk factors, competitor actions and regulatory changes as part of the strategic planning process. Through this review, as well as regular scenario planning and stress testing exercises, the risk to earnings and the level of potential business risks faced are assessed. Reports on the results of these exercises are discussed at various business, risk and board committees and are ultimately taken into account in the setting of risk appetite and potential revisions to existing strategic plans.

BUSINESS RISK

Introduction and objectives

Business risk is defined as the risk to earnings, capital and sustainability from potential changes in the business environment as well as planned new business and expansion activities.

Business risk stems from:

- potential earnings volatility that is unrelated to other known, material and already-capitalised-for risk types;
- potential lower than expected earnings, higher than expected operating costs, or both, from an inability to generate sufficient volumes, margins or fees to maintain a positive net operating margin in a volatile business environment; and
- the potential inability to execute on strategy according to the business plan in order for business entities to remain sustainable and well capitalised on a standalone basis over the forecast horizon.

The group's objective is to develop and maintain a well-diversified portfolio that delivers sustainable earnings and minimises the probability of adverse unexpected outcomes.

Assessment and management

The group has a business risk process which aims to create a group-wide shared definition and understanding, and to ensure business risk is appropriately identified, monitored, measured and embedded in the risk management activities.

The components of business risk include the following:

COMPONENT	DESCRIPTION
Volume, margin and fee changes	Related to the group's ability to generate sufficient level of revenue to offset its operating costs.
New business and expansion activities	Risk of downside deviation from planned expansion activities, where franchise value is lower than expected due to lower revenues or higher costs than expected.
Changes in external environment	Related to external political, economic, customer, competition, market, technology, climate and regulatory changes in the environment the businesses operate in.
Internal changes	Related to internal changes in strategy, organisational structure, business model, strategic processes or management.

Business risk assessment cycle

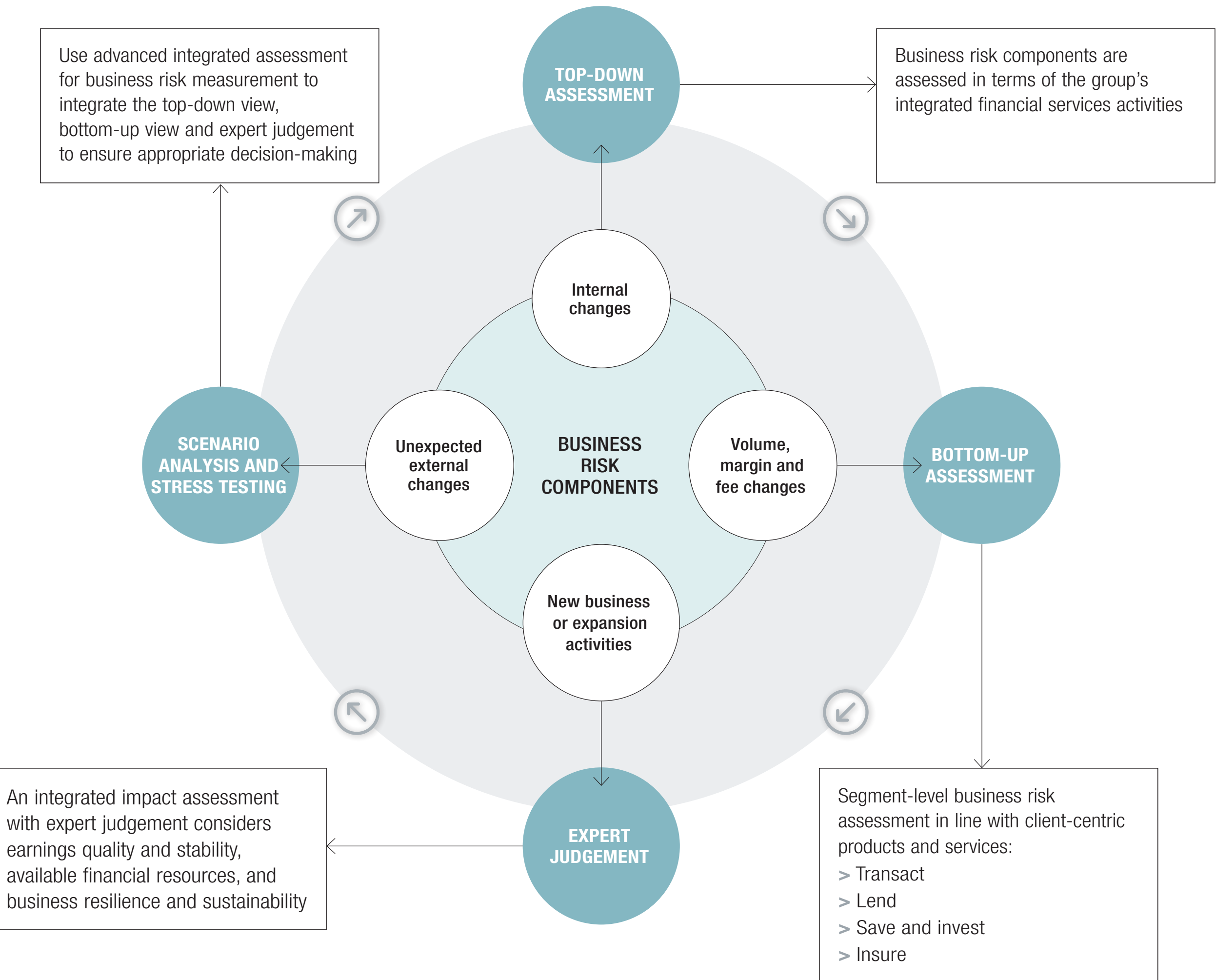
The business risk assessment and management cycle is based on a philosophy that allows integration, alignment and avoiding/minimising possible double counting of the components of business risk in the following processes:

> risk appetite;
> scenario analysis and stress testing; and
> economic capital.

This ensures that there are adequate and transparent processes with integrated tools for monitoring, assessment, measurement and mitigation of business risk as well as capitalisation for exposure to unexpected losses. The processes and tools for monitoring business risk provide insight across different points of loss distribution to enable financial resource optimisation.

The components of business risk are considered in each step of the business risk cycle.

BUSINESS RISK IDENTIFICATION ASSESSMENT CYCLE



Measurement of business risk capital

Business risk capital is quantified for economic capital purposes and is calculated for volume and margin changes, expansion activities and unexpected regulatory changes, and follows the guidelines of the group's business risk framework. The business risk assessment cycle and approach are incorporated in internal and strategic planning processes supported by the group's management committees and governance structures.

Economic capital estimates for all components of business risk are reported internally to management and externally to the PA on a biannual basis with details of approach, models and methodologies included in the annual ICAAP submission.

The group has established processes to identify, manage and measure business risk exposures, which ultimately enable the quantification of business risk economic capital.

As at 30 June 2021, business risk economic capital accounted for approximately 4% of the total group economic capital base (2020: 3%).

BUSINESS RISK MEASUREMENT AND MANAGEMENT PROCESS

1 DEFINITION AND IDENTIFICATION	
The first step involves tracking key risk drivers and factors that could give rise to business risk. In assessing risk exposure from volume and margin changes, the group performs trend analysis of revenue volatility, pre-tax operating margin, cost-to-income ratio and fixed-to-total cost ratio, and targets a portfolio of low-earnings volatility and high-margin activities with a variable cost structure. The risk inherent in expansion initiatives is managed through the execution of a robust business plan approval process. This includes in-depth scrutiny of business plans, due diligence (where relevant), understanding and documentation of risk drivers and risk factors, and analysis of root causes that could lead to additional unexpected capital injections, and frequent monitoring and reporting of execution variance against the plan.	
Ongoing monitoring of:	Changes to the external environment (e.g. Covid-19, environmental and climate-related changes, etc.); volume, margin and fee changes; and new business and expansion initiatives.

2 MEASUREMENT AND MANAGEMENT	
Internal models are used to capture the increasing probability of unexpected losses from the remainder of material risks not captured, mitigated or capitalised for by other Pillar 1 and non-Pillar 1 risk types. The risk exposure is modelled using fit-for-purpose models ranging from stochastic approaches, sensitivity assessment, scenario analysis and stress testing at different levels of the organisation. The outputs of risk measurement are used as input into the return and risk appetite framework and management decision-making.	
Ongoing monitoring of:	Risk triggers, risk exposure, earnings quality, earnings resilience, cost structures and business model changes.

3 CAPITALISATION AND MANAGEMENT ACTION	
The group uses a combination of top-down and bottom-up models to quantify tail risk exposures which are capitalised for. These include risk exposure quantification models and objective qualitative overlay scenarios. In addition, factors proposed by experts for consideration are incorporated into the running of sensitivity assessments, scenario analyses and stress testing model impact assessments. The output of this process is presented to relevant committees for management action, including challenge and approval. The group capitalises for absolute losses beyond risk appetite levels at a percentile to achieve a desired credit rating over a one-year time horizon.	
Ongoing monitoring of:	Unexpected losses, earnings volatility, inflexible operating cost structures and unsustainable performance drivers.

4 CAPITAL ALLOCATION	
The last step of the business risk management process involves capital allocation to business units where the risk exposure originates, where it can be controlled and managed, and action can be taken to align with group strategic objectives.	
Ongoing monitoring of:	Increasing capital costs, operating costs that remain inflexible, and expected revenues continuing to be lower than expected on a forward-looking basis.

REPUTATIONAL RISK

This is the risk of reputational damage due to events such as compliance failures, pending litigations, underperformance or negative media coverage.

The group's business is inherently built on trust and close relationships with its customers. Its reputation is, therefore, built on the way in which it conducts business. The group protects its reputation by managing and controlling risks across its operations. Reputational risk can arise from environmental and social issues or as a consequence of financial or operational risk events. The group seeks to avoid large risk concentrations by establishing a risk profile that is balanced within and across risk types. Potential reputational risks are also taken into account as part of stress testing exercises. The group aims to establish a risk and earnings profile within the constraints of its risk appetite, and seeks to limit potential stress losses from credit, market, liquidity or operational risks that may otherwise introduce an undesirable degree of volatility in its financial results and adversely affect its reputation. High impact transactions or emerging matters are discussed at group and operating business/segment risk committees as appropriate.

ENVIRONMENTAL, SOCIAL AND CLIMATE RISK

Environmental risk

Environmental risk is defined as the impact of the natural environment on the group's business as well as the impact and dependencies of the group's business on the environment and on natural capital. These impacts can manifest in legal or regulatory requirements, material financial losses, operational costs, physical damage, credit risk, or loss of reputation that a financial institution may suffer because of its failure to comply with responsible environmental practices, laws, regulations, rules, related self-regulatory organisational standards, and codes of conduct applicable to its activities.

Environmental risks can be grouped into two areas of impact for the group namely direct environmental risk, and indirect environmental risk.

DIRECT ENVIRONMENTAL RISK	INDIRECT ENVIRONMENTAL RISK
Environmental risk or impact on the environment which is directly associated with the actions of the group's physical operations. These risks may be governed by group operational processes, procedures or policies, and poor performance may result in the risk of legal or regulatory sanctions, physical damage, material financial loss or reputational damage that the group may suffer due to its failure to comply with all applicable laws, voluntary agreements, regulations and supervisory requirements associated with these risks.	Environmental risk or impact on the environment that is not directly associated with the physical activities of the group and its operations, however, may be associated with activities conducted through a business relationship with the group's clients, investees or stakeholders. The group could potentially be negatively affected by the actions of another party such as a government department, a borrower or through a lending activity or investment. The group may suffer in any of these aspects because of its client or stakeholder organisation's failure to comply with all applicable laws, voluntary agreements, regulations and/or supervisory requirements, and the resulting penalties.

Climate risk and social risk

Climate risk, a subset of environmental risk, is defined as a risk resulting from climate change, causing an increase in physical risks (stemming from increased incidences of natural disasters), transition risks (resulting from changes in laws, regulations or customer preferences) and third-party liability risks (due to non-compliance with climate regulations). The impact of climate change is expected to prompt substantial structural adjustments to the global economy. Several sectors, such as fossil fuels, are expected to experience disruption from changes in investor or end-user preferences, or changes in regulations whilst others, such as renewable energy and other green energy sources, and carbon capture and adaptation technologies, are likely to benefit. Such fundamental changes will inevitably impact the balance sheets and operations of banks, leading to both risks and opportunities. Regulators are beginning to act, and investors, clients and civil society are looking for actions, mitigation, adaptation and transparency on the issue.

Social risk references social impacts associated with activities conducted through a business relationship with customers, investee companies or stakeholders as a result of financial exposure, lending/financing, investment and equity interest that may lead to a risk of legal or regulatory sanctions, material financial loss or reputational damage. The issuer may suffer in any of these aspects because of its client or stakeholder organisation's failure to comply with all applicable laws, voluntary agreements, regulations and/or supervisory requirements. Social risks include product responsibility and inclusion issues, labour-related issues, occupational health and safety, community involvement, community security, human resettlement, indigenous people's rights and human rights. These risks could lead to criminal sanction, termination of operations, production losses and subsequently pose a financial, reputational or credit risk to the group.

Environmental, social and climate risk governance

FirstRand has formal governance processes for managing environmental and social risk. These include detailed environmental and social risk due diligence for lending activities, reviewing the impact of natural capital risks on the group's lending portfolios, and managing direct operational environmental risk impacts. Environmental and social risk management processes are formally integrated into the group's risk governance process, which is supported by enterprise-wide risk, social, conduct and ethics committees.

The group will publish a standalone TCFD report to coincide with the publication of the annual integrated report.

The group's environmental, social and climate risk management programme covers the following thematic focus areas.

01	***Climate risk mitigation and adaptation***	Climate change has the potential to alter the geopolitical landscape, disrupt business models and markets across all sectors, and impact the livelihoods and wellbeing of individuals. The group acknowledges that it should be part of the solution by supporting climate resilience and a responsible transition to a low-carbon economy.
02	***Water and oceans management*** Access to water, water quality, pollution prevention	Enhanced due diligence on all credit transactions to ensure that clients have preventative programmes and reactive clean-up procedures in place and that hazardous/chemical waste is managed as per legal requirements to prevent the occurrence of any pollutants above approved acceptable thresholds (where applicable) in natural water environments. The due diligence process includes accounting for dependencies on water sources for production and processing.
03	***Biodiversity and ecosystem management*** Protection of species, deforestation, agriculture	There is a growing awareness of the impact and dependencies that businesses have on nature. Economies depend on the services that businesses provide but nature is in decline. Twenty-three percent of land is now degraded and ocean "dead zones" span an area greater in size than the United Kingdom (CISL, 2021). As nature declines businesses, households and financial institutions are put at risk. Companies, including financial institutions, must account for these impacts and dependencies in their daily decisions. FirstRand is refining its current ESRA tools to better identify, manage and report on the group's impacts and dependencies on nature. The group has also participated in various working groups to contribute to the thinking and tools to better integrate biodiversity considerations into banking portfolios. For example, FirstRand participated in an informal working group that developed the Taskforce Nature-related Financial Disclosure (TNFD) framework, launched in June 2021.
04	***Pollution prevention***	Enhanced due diligence on all credit transactions to ensure that clients have preventative programmes and reactive clean-up procedures in place and that hazardous/chemical waste is managed as per legal requirements.
05	***Circular economy*** Resource efficiency and waste management	**Resource efficiency** – efficient use of limited, non-renewable natural resources (which cannot be regenerated after exploitation) and renewable natural resources (which can return to their previous stock levels by natural processes of growth or replenishment) in the process of exploiting nature for production and consumption purposes. **Waste management** – including the control, monitoring and regulation of the production, collection, transport, treatment and disposal of waste, and the prevention of waste production through in-process modifications, reuse and recycling during a project lifecycle. FirstRand has not yet assessed resource efficiency and circular economy activities in its portfolio. As part of the group's journey on this topic it is currently participating in a UNEP-FI working group, that is developing guidelines to assist banks to adopt resource efficiency and circular economy considerations in their portfolios.

Cross-cutting risk type

Environmental, social and climate risk is typically a cross-cutting risk issue and therefore cannot be managed in a single risk management function. The group's environmental, social and climate risk management framework consists of an outline of programmes and initiatives which are designed to manage and mitigate the following areas and types of environment-related risk.

> Reputational: Damage to reputation from association with environmental and social impacts.
> Market and liquidity: Higher levels of market volatility, shift in asset valuations, dislocations, shift in market appetite with regards to the type of assets funded.
> Credit: Adverse impact on customers' ability to pay, impaired collateral values mainly driven by an increase in physical risks (e.g. drought or property damage) or transition risks (lower demand of product).
> Legal action, regulatory sanction or reputational damage may occur as a result of the group's approach to environmental risk.
> Policy risk due to impact of new requirements , such as impact of carbon taxes, prudential requirements and emissions reporting.
> Substitution of client's existing products and services with lower emission options, or the unsuccessful investment in new technologies.
> Disruptions to the group's operations, infrastructure, workforce, processes and supply chain may result from acute environmental events.

Environmental, social and climate opportunities

Opportunities resulting from environmental, social and climate change risk manifests through:

> development of innovative sustainable solutions;
> responsible lending and investment;
> resource efficiency and carbon emission reduction in the group's own operations, including management of water resources, energy sources etc;
> introducing new environment-related technologies, products and services.

The group supports the Paris Agreement and its desired outcome of achieving net zero greenhouse gas emissions by 2050. It commits to aligning financial flows to help the group's operating jurisdictions realise their nationally determined contribution plans. As these plans are updated and become more ambitious, the group will also update its targets and policies.

There is a clear commercial imperative for better climate risk management, the development of sustainable financing and funding solutions, and the integration of climate impacts into capital allocation, origination strategies, portfolio diversification and reporting. FirstRand is therefore focused on formulating growth strategies, building appropriate capabilities and integrating climate change considerations into existing business plans and processes. This will ensure that the group can actively participate in the financing of the green economy, pursuing significant opportunities for innovation, new technologies and markets to help society adapt.

FirstRand's TCFD report will be published on the group's website at www.firstrand.co.za/investors/annual-reporting/, and the environmental, social and climate section of the report to society will be published on the group's website at www.firstrand.co.za/society/firstrand-contract-with-society/.

REMUNERATION AND COMPENSATION

FirstRand's compensation policies and practices incorporate international best practice and comply with the requirements of the Banks Act, 1990 (Act No. 94 of 1990) and the *FSB Principles for Sound Compensation Practices*. In accordance with the requirements of Regulation 43 of the Regulations and the Pillar 3 standards, disclosure of the group's compensation policies, practices and performance are included in the remuneration committee report, which is published on FirstRand's website at www.firstrand.co.za/investors/annual-reporting/.

STANDARDISED DISCLOSURES

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KM1: Key metrics (at consolidated group)

The table below consists of key prudential metrics related to regulatory capital, leverage and liquidity for FirstRand Limited (the group).

	FirstRand Limited				
R million	**June 21**	March 21	December 20	September 20	June 20
AVAILABLE CAPITAL (AMOUNTS)*					
1 Common Equity Tier 1	**124 445**	124 916	121 902	125 303	126 903
1a Fully loaded ECL accounting model	**123 364**	123 835	120 820	124 222	124 740
2 Tier 1	**131 536**	132 184	129 537	132 049	133 568
2a Fully loaded ECL accounting model Tier 1	**130 455**	131 103	128 456	130 968	131 404
3 Total capital**	**154 976**	156 240	153 878	158 312	160 512
3a Fully loaded ECL accounting model total capital	**154 177**	155 158	152 804	157 230	158 458
RISK-WEIGHTED ASSETS (AMOUNTS)					
4 Total risk-weighted assets	**1 058 916**	1 072 898	1 080 689	1 121 131	1 114 321
RISK-BASED CAPITAL RATIOS AS A PERCENTAGE OF RWA*					
5 Common Equity Tier 1 (%)	**11.8%**	11.6%	11.3%	11.2%	11.4%
5a Fully loaded ECL accounting model Common Equity Tier 1 (%)	**11.6%**	11.5%	11.2%	11.1%	11.2%
6 Tier 1 (%)	**12.4%**	12.3%	12.0%	11.8%	12.0%
6a Fully loaded ECL accounting model Tier 1 (%)	**12.3%**	12.2%	11.9%	11.7%	11.8%
7 Total capital (%)	**14.6%**	14.6%	14.2%	14.1%	14.4%
7a Fully loaded ECL accounting model total capital (%)	**14.6%**	14.5%	14.1%	14.0%	14.2%
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 (CCyB) requirement (%)#	**0.0%**	0.0%	0.0%	0.0%	0.0%
10 Bank D-SIB additional requirements (%)†	**1.0%**	0.8%	0.8%	0.8%	–
11 Total of bank CET1 specific buffer requirements (%) (row 8 + row 9 + row 10)	**3.5%**	3.3%	3.3%	3.3%	2.5%
12 CET1 available after meeting the bank's minimum capital requirements (%)	**2.4%**	2.6%	2.2%	2.1%	3.5%
BASEL III LEVERAGE RATIO‡					
13 Total Basel III leverage ratio exposure measure	**1 933 685**	1 955 435	1 926 054	1 915 294	1 898 460
14 Basel III leverage ratio (%) (row 2/row13)	**6.8%**	6.8%	6.7%	6.9%	7.0%
14a Fully loaded ECL accounting model Basel III leverage ratio (%) (row 2a/row 13)	**6.8%**	6.7%	6.7%	6.8%	6.9%
LIQUIDITY COVERAGE RATIO					
15 Total high-quality liquid assets	**312 514**	326 296	326 422	309 106	279 854
16 Total net cash outflow	**277 326**	285 352	267 681	248 283	243 331
17 LCR ratio (%)	**113%**	114%	122%	124%	115%
NET STABLE FUNDING RATIO					
18 Total available stable funding	**1 240 336**	1 231 589	1 240 146	1 237 864	1 193 182
19 Total required stable funding	**1 004 757**	1 011 309	992 581	1 004 557	1 020 727
20 NSFR ratio	**123%**	122%	125%	123%	117%

* *Excluding unappropriated profits.*
** *Relates to total qualifying capital and reserves, which includes Tier 1 and Tier 2 capital.*
\# *In March 2020, the Prudential Regulation Authority reduced the UK CCyB requirement from 1% to 0%. The FirstRand CCyB requirement is nil for the June 2020 reporting period and onwards.*
† *Total D-SIB requirement is 1.5% at 30 June 2021, of which 1% is held in CET1 capital.*
‡ *Based on month-end balances.*

KEY DRIVERS: JUNE 2021 VS MARCH 2021

Risk-based capital ratios*	**Available capital** ● Tier 1: Decrease due to the reduction in the foreign currency translation reserve given the appreciation of the rand. ● Tier 2: Movements in third-party capital and appreciation of the rand. **RWA** ● Decrease in total RWA driven primarily by a decrease in credit risk and other risk, partly offset by an increase in operational risk.
Leverage ratio*	**Total exposure measure** ● Based on the regulatory definition, the total exposure decrease is due to a decrease in on-balance sheet items and derivatives exposure partly offset by an increase in off-balance sheet items. **Tier 1 capital measure** ● Refer to capital commentary above.
Liquidity ratios	● The decrease in the LCR reflects the expected cyclical changes from the previous quarter. The group's LCR continues to exceed the revised minimum requirement of 80% and the NSFR is above the minimum requirement of 100%.

* *Reflects the transitional Day 1 impact of IFRS 9.*

KM1: Key metrics (FirstRand Bank Limited*)

The table below consists of key prudential metrics related to regulatory capital, leverage and liquidity for FirstRand Bank Limited (the bank).

	FirstRand Bank Limited				
R million	**June 21**	March 21	December 20	September 20	June 20
AVAILABLE CAPITAL (AMOUNTS)**					
1 Common Equity Tier 1	**92 439**	92 530	90 400	91 106	91 964
1a Fully loaded ECL accounting model	**91 766**	91 857	89 727	90 433	90 618
2 Tier 1	**97 435**	97 461	95 360	94 499	95 376
2a Fully loaded ECL accounting model Tier 1	**96 762**	96 788	94 686	93 826	94 030
3 Total capital[#]	**116 265**	116 313	114 344	114 494	117 312
3a Fully loaded ECL accounting model total capital	**115 591**	115 640	113 677	113 821	116 075
RISK-WEIGHTED ASSETS (AMOUNTS)					
4 Total risk-weighted assets (RWA)	**717 153**	721 543	732 622	762 946	748 079
RISK-BASED CAPITAL RATIOS AS A PERCENTAGE OF RWA**					
5 Common Equity Tier 1 (%)	**12.9%**	12.8%	12.3%	11.9%	12.3%
5a Fully loaded ECL accounting model Common Equity Tier 1 (%)	**12.8%**	12.7%	12.2%	11.8%	12.1%
6 Tier 1 (%)	**13.6%**	13.5%	13.0%	12.4%	12.7%
6a Fully loaded ECL accounting model Tier 1 (%)	**13.5%**	13.4%	12.9%	12.3%	12.6%
7 Total capital (%)	**16.2%**	16.1%	15.6%	15.0%	15.7%
7a Fully loaded ECL accounting model total capital ratio (%)	**16.1%**	16.0%	15.5%	14.9%	15.5%
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 CCyB requirement (%)[†]	**0.0%**	0.0%	0.0%	0.0%	0.0%
10 Bank D-SIB additional requirements[‡]	**1.0%**	0.8%	0.8%	0.8%	–
11 Total of bank CET1 specific buffer requirements (%) (row 8 + row 9 + row 10)	**3.5%**	3.3%	3.3%	3.3%	2.5%
12 CET1 available after meeting the bank's minimum capital requirements (%)	**3.6%**	3.9%	3.4%	2.8%	4.2%
BASEL III LEVERAGE RATIO^					
13 Total Basel III leverage ratio exposure measure	**1 463 072**	1 498 115	1 466 304	1 435 719	1 424 157
14 Basel III leverage ratio (%) (row 2/row13)	**6.7%**	6.5%	6.5%	6.6%	6.7%
14a Fully loaded ECL accounting model Basel III leverage ratio (%) (row 2a/row 13)	**6.6%**	6.5%	6.5%	6.5%	6.6%
LIQUIDITY COVERAGE RATIO◊					
15 Total HQLA	**286 628**	296 794	299 201	283 189	249 471
16 Total net cash outflow	**245 861**	248 687	235 849	208 546	201 999
17 LCR ratio (%)	**117%**	119%	127%	136%	124%
NET STABLE FUNDING RATIO◊					
18 Total available stable funding	**879 957**	866 021	871 233	854 477	818 344
19 Total required stable funding	**722 913**	721 550	700 763	684 984	706 200
20 NSFR ratio	**122%**	120%	124%	125%	116%

* *FirstRand Bank Limited including foreign branches.*
** *Excluding unappropriated profits.*
# *Relates to total qualifying capital and reserves, which include Tier 1 and Tier 2 capital.*
† *In March 2020, the Prudential Regulation Authority reduced the UK CCyB requirement from 1% to 0%. The FirstRand Bank Limited CCyB requirement is nil for the June 2020 reporting period and onwards.*
‡ *Total D-SIB requirement is 1.5% at 30 June 2021, of which 1% is held in CET1 capital.*
^ *Based on month-end balances.*
◊ *Reflects FirstRand Bank Limited's operations in South Africa.*

CC1: Composition of regulatory capital

The table below provides a detailed breakdown of regulatory capital according to the scope of regulatory consolidation for the group.

		FirstRand Limited as at 30 June			
R million		2021	Amounts subject to pre-Basel III treatment	Reference*	2020
COMMON EQUITY TIER 1 (CET1) CAPITAL: INSTRUMENTS AND RESERVES					
1	Directly issued qualifying common share capital and share premium	**8 029**		a	8 064
2	Retained earnings	**120 846**		b	117 846
3	Accumulated other comprehensive income (and other reserves)	**4 751**		c	10 875
4	Directly issued capital subject to phase-out from CET1 (only applicable to joint stock companies)				
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	**4 027**	**4 625**	d	3 609
6	**CET1 capital before regulatory adjustments**	**137 653**			140 394
COMMON EQUITY TIER 1 CAPITAL: REGULATORY ADJUSTMENTS					
7	Prudential valuation adjustments	**380**			349
8	Goodwill (net of related tax liability)	**7 725**		e	8 386
9	Other intangibles other than mortgage-servicing rights (net of related tax liability)	**1 904**		f	2 822
10	Deferred tax assets that rely on future probability excluding those arising from temporary differences (net of related tax liability)	**264**		g	235
11	Cash flow hedge reserve	**1 355**			1 995
12	Shortfall of provisions to expected losses	**–**			–
13	Securitisation gain on sale	**–**			–
14	Gains and losses due to changes in own credit risk on fair valued liabilities	**–**			–
15	Defined benefit pension fund net assets	**9**			–
16	Investments in own shares (if not already netted off paid in capital on reported balance sheet)	**5**			66
17	Reciprocal cross-holdings in common equity	**–**			–
18	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued share capital (amount above 10% threshold)	**–**			–
19	Significant investments in the common stock of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions (amount above 10% threshold)	**–**			–
20	Mortgage servicing rights (amount above 10% threshold)				
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)	**–**			–
22	Amount exceeding 15% threshold	**–**			–
23	Of which: Significant investments in the common stock of financials	**–**			–
24	Of which: Mortgage servicing rights				
25	Of which: Deferred tax assets arising from temporary differences	**–**			–
26	National specific regulatory adjustments	**1 566**		h	(362)
27	Regulatory adjustments applied to CET1 due to insufficient AT1 and Tier 2 to cover deductions	**–**			–
28	**Total regulatory adjustments to CET1**	**13 208**			13 491
29	**CET1 capital**	**124 445**			126 903
ADDITIONAL TIER 1 (AT1) CAPITAL: INSTRUMENTS					
30	Directly issued qualifying AT1 instruments plus related stock surplus	**–**			–
31	Of which: Classified as equity under applicable accounting standards	**–**			–
32	Of which: Classified as liability under applicable accounting standards	**–**			–
33	Directly issued capital instruments subject to phase-out from AT1	**452**		i	904
34	AT1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in group AT1)	**7 725**		j	6 263
35	Of which: Instruments issued by subsidiaries subject to phase-out	**–**			–
36	**AT1 capital before regulatory adjustments**	**8 177**			7 167

* *Reference to CC2: Reconciliation of regulatory capital to balance sheet table on page 188.*

R million	FirstRand Limited as at 30 June			
	2021	Amounts subject to pre-Basel III treatment	Reference*	2020
ADDITIONAL TIER 1: REGULATORY ADJUSTMENTS				
37 Investments in own AT1 instruments	**–**			–
38 Reciprocal cross-holdings in AT1 instruments	**–**			–
39 Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above 10% threshold)	**–**			–
40 Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	**–**			–
41 National specific regulatory adjustments	**1 086**		k	502
42 Regulatory adjustments applied to AT1 due to insufficient Tier 2 to cover deductions	**–**			–
43 **Total regulatory adjustments to AT1 capital**	**1 086**			502
44 **AT1 capital**	**7 091**		l	6 665
45 **Tier 1 capital (CET1 + AT1)**	**131 536**			133 568
TIER 2 CAPITAL AND PROVISIONS				
46 Directly issued qualifying Tier 2 instruments	**–**			–
47 Directly issued capital instruments subject to phase-out from Tier 2	**–**			–
48 Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)	**19 572**		m	22 618
49 Of which: Instruments issued by subsidiaries subject to phase-out	**–**			–
50 Provisions	**6 790**			7 108
51 **Tier 2 capital before regulatory adjustments**	**26 362**			29 726
TIER 2 CAPITAL: REGULATORY ADJUSTMENTS				
52 Investments in own Tier 2 instruments	**–**			–
53 Reciprocal cross-holdings in Tier 2 instruments	**–**			–
54 Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above the 10% threshold)	**–**			–
54a Investments in the other TLAC liabilities of banking, financial and insurance entities that are outside the scope of regulatory consolidation and where the bank does not own more than 10% of the issued common share capital of the entity: amount previously designated for the 5% threshold, but that no longer meets the conditions (for G-SIBs only)	**–**			–
55 Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	**–**			–
56 National specific regulatory adjustments	**2 922**			2 782
57 **Total regulatory adjustments to Tier 2 capital**	**2 922**			2 782
58 **Tier 2 capital**	**23 440**			26 944
59 **Total capital (Tier 1 + Tier 2)**	**154 976**			160 512
60 **Total risk-weighted assets**	**1 058 916**			1 114 321
CAPITAL RATIOS AND BUFFERS				
61 CET1 (as a percentage of risk-weighted assets)	**11.8%**			11.4%
62 Tier 1 (as a percentage of risk-weighted assets)	**12.4%**			12.0%
63 Total capital (as a percentage of risk-weighted assets)	**14.6%**			14.4%
64 Institution-specific buffer requirement (capital conservation buffer plus countercyclical buffer requirements plus higher loss-absorbency requirement, expressed as a percentage of risk-weighted assets)	**8.0%**			7.0%
65 Of which: Capital conservation buffer requirement	**2.5%**			2.5%
66 Of which: Bank-specific countercyclical buffer requirement**	**0%**			0%
67 Of which: D-SIB requirement[#]	**1.0%**			0%
68 CET1 available to meet buffers (as a percentage of risk-weighted assets)	**2.4%**			3.5%

* *Reference to CC2: Reconciliation of regulatory capital to balance sheet table on page 188.*

** *FirstRand's CCyB requirement is nil for June 2021 and 2020.*

[#] *The total D-SIB requirement is 1.5%, of which CET1 is 1.0% (2020: 0.75%).*

R million	FirstRand Limited as at 30 June			
	2021	Amounts subject to pre-Basel III treatment	Reference*	2020
NATIONAL MINIMA (IF DIFFERENT FROM BASEL III)				
69 National CET1 minimum ratio	**8.0%**			7.0%
70 National Tier 1 minimum ratio	**10.0%**			8.5%
71 National total capital minimum ratio	**12.0%**			10.5%
AMOUNTS BELOW THE THRESHOLD FOR DEDUCTIONS (BEFORE RISK WEIGHTING)				
72 Non-significant investments in the capital and other TLAC liabilities of other financial entities	**335**			422
73 Significant investments in the capital of financial entities	**6 520**			5 759
74 Mortgage servicing rights (net of related tax liability)				
75 Deferred tax assets arising from temporary differences (net of tax liability)	**5 549**		n	4 166
APPLICABLE CAPS ON THE INCLUSION OF PROVISIONS IN TIER 2				
76 Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	**7 839**			9 689
77 Cap on inclusion of provisions in Tier 2 under standardised approach	**3 786**			4 087
78 Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	**6 197**			4 196
79 Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	**3 004**			3 130
CAPITAL INSTRUMENTS SUBJECT TO PHASE-OUT ARRANGEMENTS (ONLY APPLICABLE BETWEEN 1 JAN 2018 AND 1 JAN 2022)				
80 Current cap on CET1 instruments subject to phase-out arrangements				
81 Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)				
82 Current cap on AT1 instruments subject to phase-out arrangements	**452**			904
83 Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	**4 067**			3 615
84 Current cap on Tier 2 instruments subject to phase-out arrangements	**–**			–
85 Amount excluded from Tier 2 due to cap (excess over cap after redemptions and maturities)	**–**			–

* *Reference to CC2: Reconciliation of regulatory capital to balance sheet table on page 188.*

CC2: Reconciliation of regulatory capital to balance sheet

The table below highlights the differences between the scope of accounting and regulatory consolidation. It also links the group's published statement of financial position and the CC1 composition of regulatory capital disclosure template.

	FirstRand Limited as at 30 June 2021		
R million	Balance sheet as in published financial statements	Under regulatory scope of consolidation*	Reference**
ASSETS			
Cash and cash equivalents	135 059	134 962	
Derivative financial instruments	82 728	82 728	
Commodities	18 641	18 641	
Investment securities	368 187	360 138	
Advances	1 223 434	1 223 434	
– Advances to customers	1 152 956	1 152 956	
– Marketable advances	70 478	70 478	
Other assets	9 216	9 032	
Current tax assets	409	318	
Non-current assets and disposal groups held for sale	565	565	
Reinsurance assets	387	–	
Investments in subsidiary companies	–	1 265	
Investments in associates	8 644	8 644	
Investments in joint ventures	2 116	2 122	
Property and equipment	20 190	20 180	
Intangible assets	9 932	9 629	
– Goodwill		7 725	e
– Intangibles		1 904	f
Investment properties	659	659	
Defined benefit post-employment assets	9	9	
Deferred income tax assets	6 104	5 813	
– Relating to temporary differences		5 549	n
– Other than temporary differences		264	g
Total assets	1 886 280		
EQUITY AND LIABILITIES			
Liabilities			
Short trading positions	18 945	18 945	
Derivative financial instruments	84 436	84 436	
Creditors, accruals and provisions	22 765	21 577	
Current tax liability	1 280	1 276	
Liabilities directly associated with disposal group held for sale	613	613	
Deposits	1 542 078	1 542 033	
Employee liabilities	11 319	11 217	
Other liabilities	7 741	7 741	
Amounts due to subsidiary companies	–	446	
Policyholder liabilities	7 389	–	
Tier 2 liabilities	20 940	19 572	m#
Deferred income tax liability	887	851	
Total liabilities	1 718 393		
Equity			
Ordinary shares	56	56	a
Share premium	7 973	7 973	a
Reserves	143 588	125 597	
– Retained earnings		120 846	b†
– Accumulated other comprehensive income (and other reserves)		4 751	c
Capital and reserves attributable to ordinary equityholders	151 617		
Non-controlling interests – CET1	4 625	1 953	d – h‡
Other equity instruments	11 645	7 091	l
Of which: Directly issued AT1 instruments subject to phase-out		452	i
Of which: Non-controlling interests – AT1		6 639	j – k^
Total equity	167 887		
Total equity and liabilities	1 886 280		

* *Amounts included under regulatory scope of consolidation exclude balances related to insurance entities as the deduction approach is applied. Deduction for insurance entities is included in line 26 of CC1: Composition of regulatory capital table on page 185.*

** *Reference to CC1: Composition of regulatory capital table on page 185.*

\# *Subject to the third-party capital rule.*

† *Excluding unappropriated profits.*

‡ *Subject to third party capital rule: net amount reported under regulatory scope of consolidation. CC1: Composition of regulatory capital on page 185: line 5 gross minority interests (R 4 billion) less line 26 regulatory deductions, of which surplus minority capital is R2.1 billion.*

^ *Subject to the third-party capital rule: net amount reported under regulatory scope of consolidation.*

Note: Greyed out cells not applicable or information not available.

OV1: Overview of RWA

The following table provides an overview of RWA per risk type.

		FirstRand Limited			
		RWA			Minimum capital requirement*
R million		As at 30 June 2021	As at 31 March 2021	As at 30 June 2020	As at 30 June 2021
1	**Credit risk (excluding counterparty credit risk)****	**729 530**	737 302	786 183	**87 544**
2	– Standardised approach	**277 917**	289 503	313 949	**33 350**
5	– AIRB	**451 613**	447 799	472 234	**54 194**
16	**Securitisation exposures in banking book**	**26 303**	29 334	29 140	**3 156**
17	– IRB ratings-based approach	**–**	–	–	**–**
18	– IRB supervisory formula approach	**2 029**	3 412	2 074	**244**
19	– Standardised approach/simplified supervisory formula approach	**24 274**	25 922	27 066	**2 912**
	Total credit risk	**755 833**	766 636	815 323	**90 700**
6	**Counterparty credit risk#**	**14 321**	15 139	16 376	**1 718**
7	– SA-CCR	**14 321**	15 139	16 376	**1 718**
10	**Credit valuation adjustment**	**11 110**	11 078	17 422	**1 333**
11	**Equity positions in banking book under market-based approach**	**20 722**	21 318	27 397	**2 487**
12	Equity investments in funds – look-through approach†	**–**	–	–	**–**
13	**Equity investments in funds – mandate-based approach†**	**8 224**	7 648	–	**987**
14	**Equity investments in funds – fall-back approach†**	**–**	406	–	**–**
15	**Settlement risk**	**–**	–	–	**–**
20	**Market risk‡**	**30 163**	31 387	28 352	**3 620**
21	– Standardised approach	**12 688**	12 020	12 021	**1 523**
22	– Internal model approach	**17 475**	19 367	16 331	**2 097**
24	**Operational risk**	**137 474**	142 488	139 332	**16 497**
	– Basic indicator approach	**17 998**	16 846	15 721	**2 160**
	– Standardised approach	**25 075**	26 077	25 616	**3 009**
	– Advanced measurement approach	**94 401**	99 565	97 995	**11 328**
25	**Amounts below the thresholds for deduction (subject to 250% risk weight)**	**30 173**	28 930	24 811	**3 621**
26	**Floor adjustment**	**21 092**	12 466	11 914	**2 531**
	Other assets	**29 804**	35 402	33 394	**3 576**
27	**Total**	**1 058 916**	1 072 898	1 114 321	**127 070**

* *Capital requirement calculated at 12.0% of RWA. The minimum requirement excludes the Pillar 2B capital requirement. The difference to the BCBS base minimum (8%) relates to the buffer add-ons for Pillar 2A, CCyB, capital conservation and the D-SIB as prescribed in the Regulations. The Pillar 2A and CCyB requirements were 0% at 30 June 2021.*

** *The group does not apply the foundation internal ratings-based and the supervisory slotting approaches (rows 3 and 4 of OV1 template).*

Implementation of SA-CCR was 1 January 2021. The group does not apply the internal model method to counterparty credit risk (row 8 of OV1 template) and there were no other counterparty credit risks (CCRs) (row 9 of OV1 template).

† *Implementation of the capital requirements for equity investment in funds was 1 January 2021. Rows 12 – 14 of the OV1 template have now been included in this table.*

‡ *There were no switches between trading and banking book during the period under review (row 23 of OV1 template).*

CC1: Composition of regulatory capital

The table below provides a detailed breakdown of regulatory capital according to the scope of regulatory consolidation for FirstRand Bank Limited (the bank).

		FirstRand Bank Limited* as at 30 June			
R million		2021	Amounts subject to pre-Basel III treatment	Reference**	2020
COMMON EQUITY TIER 1 (CET1) CAPITAL: INSTRUMENTS AND RESERVES					
1	Directly issued qualifying common share capital and share premium	**16 808**		a	16 808
2	Retained earnings	**74 265**		b	72 265
3	Accumulated other comprehensive income (and other reserves)	**2 862**		c	4 890
4	Directly issued capital subject to phase-out from CET1 (only applicable to joint stock companies)				
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	**–**	–		–
6	**CET1 capital before regulatory adjustments**	**93 935**			93 963
COMMON EQUITY TIER 1 CAPITAL: REGULATORY ADJUSTMENTS					
7	Prudential valuation adjustments	**370**			349
8	Goodwill (net of related tax liability)	**–**			–
9	Other intangibles other than mortgage-servicing rights (net of related tax liability)	**338**		d	681
10	Deferred tax assets that rely on future probability excluding those arising from temporary differences (net of related tax liability)	**121**		e	190
11	Cash flow hedge reserve	**1 333**			2 060
12	Shortfall of provisions to expected losses	**–**			–
13	Securitisation gain on sale	**–**			–
14	Gains and losses due to changes in own credit risk on fair valued liabilities	**–**			–
15	Defined benefit pension fund net assets	**–**			–
16	Investments in own shares (if not already netted off paid in capital on reported balance sheet)	**5**			66
17	Reciprocal cross-holdings in common equity	**–**			–
18	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued share capital (amount above 10% threshold)	**–**			–
19	Significant investments in the common stock of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions (amount above 10% threshold)	**–**			–
20	Mortgage servicing rights (amount above 10% threshold)				
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)	**–**			–
22	Amount exceeding 15% threshold	**–**			–
23	Of which: Significant investments in the common stock of financials	**–**			–
24	Of which: Mortgage servicing rights				
25	Of which: Deferred tax assets arising from temporary differences	**–**			–
26	National specific regulatory adjustments	**(671)**			(1 347)
27	Regulatory adjustments applied to CET1 due to insufficient AT1 and Tier 2 to cover deductions	**–**			–
28	**Total regulatory adjustments to CET1**	**1 496**			1 999
29	**CET1 capital**	**92 439**			91 964
ADDITIONAL TIER 1 (AT1) CAPITAL: INSTRUMENTS					
30	Directly issued qualifying AT1 instruments plus related stock surplus	**7 126**			5 726
31	Of which: Classified as equity under applicable accounting standards	**7 126**		f	5 726
32	Of which: Classified as liability under applicable accounting standards	**–**			–
33	Directly issued capital instruments subject to phase-out from AT1	**–**			–
34	AT1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in group AT1)	**–**			–
35	Of which: Instruments issued by subsidiaries subject to phase-out	**–**			–
36	**AT1 capital before regulatory adjustments**	**7 126**			5 726

* *FirstRand Bank Limited including foreign branches.*

** *Reference to CC2: Reconciliation of regulatory capital to balance sheet table on page 193.*

R million		FirstRand Bank Limited* as at 30 June			
		2021	Amounts subject to pre-Basel III treatment	Reference**	2020
ADDITIONAL TIER 1 CAPITAL: REGULATORY ADJUSTMENTS					
37	Investments in own AT1 instruments	–			–
38	Reciprocal cross-holdings in AT1 instruments	–			–
39	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above 10% threshold)	–			–
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	–			–
41	National specific regulatory adjustments	2 130			2 314
42	Regulatory adjustments applied to AT1 due to insufficient Tier 2 to cover deductions	–			–
43	**Total regulatory adjustments to AT1 capital**	**2 130**			2 314
44	**AT1 capital**	**4 996**			3 412
45	**Tier 1 capital (CET1 + AT1)**	**97 435**			95 376
TIER 2 CAPITAL AND PROVISIONS					
46	Directly issued qualifying Tier 2 instruments	18 427		g	21 572
47	Directly issued capital instruments subject to phase-out from Tier 2	–			–
48	Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)	–			–
49	Of which: Instruments issued by subsidiaries subject to phase-out	–			–
50	Provisions	3 402			3 625
51	**Tier 2 capital before regulatory adjustments**	**21 829**			25 197
TIER 2 CAPITAL: REGULATORY ADJUSTMENTS					
52	Investments in own Tier 2 instruments	–			–
53	Reciprocal cross-holdings in Tier 2 instruments	–			–
54	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above the 10% threshold)	–			–
54a	Investments in the other TLAC liabilities of banking, financial and insurance entities that are outside the scope of regulatory consolidation and where the bank does not own more than 10% of the issued common share capital of the entity: amount previously designated for the 5% threshold, but that no longer meets the conditions (for G-SIBs only)	–			–
55	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	–			–
56	National specific regulatory adjustments	2 999			3 261
57	**Total regulatory adjustments to Tier 2 capital**	**2 999**			3 261
58	**Tier 2 capital**	**18 830**			21 936
59	**Total capital (Tier 1 + Tier 2)**	**116 265**			117 312
60	**Total risk-weighted assets**	**717 153**			748 079
CAPITAL RATIOS AND BUFFERS					
61	CET1 (as a percentage of risk-weighted assets)	12.9%			12.3%
62	Tier 1 (as a percentage of risk-weighted assets)	13.6%			12.7%
63	Total capital (as a percentage of risk-weighted assets)	16.2%			15.7%
64	Institution-specific buffer requirement (capital conservation buffer plus countercyclical buffer requirements plus higher loss-absorbency requirement, expressed as a percentage of risk-weighted assets)	8.0%			7.0%
65	Of which: Capital conservation buffer requirement	2.5%			2.5%
66	Of which: Bank-specific countercyclical buffer requirement#	0%			0%
67	Of which: D-SIB buffer requirement†	1.0%			0%
68	CET1 available to meet buffers (as a percentage of risk-weighted assets)	3.6%			4.2%

* *FirstRand Bank Limited including foreign branches.*

** *Reference to CC2: Reconciliation of regulatory capital to balance sheet table on page 193.*

\# *FirstRand Bank Limited's CCyB requirement is nil for June 2021 and 2020.*

† *The total D-SIB requirement is 1.5%, of which CET1 is 1.0% (2020: 0.75%).*

R million	FirstRand Bank Limited* as at 30 June 2021	Amounts subject to pre-Basel III treatment	Reference**	2020
NATIONAL MINIMA (IF DIFFERENT FROM BASEL III)*				
69 National CET1 minimum ratio	**8.0%**			7.0%
70 National Tier 1 minimum ratio	**10.0%**			8.5%
71 National total capital minimum ratio	**12.0%**			10.5%
AMOUNTS BELOW THE THRESHOLD FOR DEDUCTIONS (BEFORE RISK WEIGHTING)				
72 Non-significant investments in the capital and other TLAC liabilities of other financial entities	**197**			179
73 Significant investments in the capital of financial entities	**430**			445
74 Mortgage servicing rights (net of related tax liability)				
75 Deferred tax assets arising from temporary differences (net of tax liability)	**4 299**		h	3 074
APPLICABLE CAPS ON THE INCLUSION OF PROVISIONS IN TIER 2				
76 Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	**1 189**			1 180
77 Cap on inclusion of provisions in Tier 2 under standardised approach	**398**			604
78 Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	**6 197**			4 196
79 Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	**3 004**			3 130
CAPITAL INSTRUMENTS SUBJECT TO PHASE-OUT ARRANGEMENTS (ONLY APPLICABLE BETWEEN 1 JAN 2018 AND 1 JAN 2022)				
80 Current cap on CET1 instruments subject to phase-out arrangements				
81 Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)				
82 Current cap on AT1 instruments subject to phase-out arrangements	**–**			–
83 Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	**–**			–
84 Current cap on Tier 2 instruments subject to phase-out arrangements	**–**			–
85 Amount excluded from Tier 2 due to cap (excess over cap after redemptions and maturities)	**–**			–

* *FirstRand Bank Limited including foreign branches.*

** *Reference to CC2: Reconciliation of regulatory capital to balance sheet table on page 193.*

CC2: Reconciliation of regulatory capital to balance sheet

The table below highlights the differences between the scope of accounting and regulatory consolidation. It also links the bank's published statement of financial position and the CC1 composition of regulatory capital disclosure template.

	FirstRand Bank Limited* as at 30 June 2021		
R million	Balance sheet as in published financial statements	Under regulatory scope of consolidation	Reference**
ASSETS			
Cash and cash equivalents	99 646	99 646	
Derivative financial instruments	70 774	70 774	
Commodities	18 641	18 641	
Investment securities	273 766	273 766	
Advances	857 955	857 955	
– Advances to customers	786 643	786 643	
– Marketable advances	71 312	71 312	
Other assets	4 928	4 928	
Current tax assets	32	32	
Amounts due by holding company and fellow subsidiary companies	67 108	67 108	
Investment properties	249	249	
Property and equipment	16 865	16 865	
Intangible assets	338	338	d
Deferred income tax asset	4 727	4 420	
– Relating to temporary differences		4 299	h
– Other than temporary differences		121	e
Total assets	1 415 029		
EQUITY AND LIABILITIES			
Liabilities			
Short trading positions	18 660	18 660	
Derivative financial instruments	70 722	70 722	
Creditors, accruals and provisions	15 814	15 814	
Current tax liability	896	896	
Deposits	1 135 585	1 135 585	
Employee liabilities	9 859	9 859	
Liabilities directly associated with disposal group held for sale	–	–	
Other liabilities	5 087	5 087	
Amounts due to holding company and fellow subsidiary companies	27 214	27 214	
Tier 2 liabilities	18 813	18 427	g
Total liabilities	1 302 650		
Equity			
Ordinary shares	4	4	a
Share premium	16 804	16 804	a
Reserves	88 445	77 127	
– Retained earnings		74 265	b#
– Accumulated other comprehensive income (and other reserves)		2 862	c
Capital and reserves attributable to ordinary equityholders	105 253		
Other equity instruments	7 126	7 126	f
Total equity	112 379		
Total equity and liabilities	1 415 029		

* *FirstRand Bank Limited including foreign branches.*

** *Reference to CC1: Composition of regulatory capital table on page 190.*

\# *Excluding unappropriated profits.*

Note: Greyed out cells not applicable or information not available.

OV1: Overview of RWA

The following table provides an overview of RWA per risk type.

		FirstRand Bank Limited*			
		RWA			Minimum capital requirement**
	R million	As at 30 June 2021	As at 31 March 2021	As at 30 June 2020	As at 30 June 2021
1	**Credit risk (excluding counterparty credit risk)#**	**502 719**	500 465	531 641	**60 326**
2	– Standardised approach	**28 554**	31 779	42 279	**3 426**
5	– AIRB	**474 165**	468 686	489 362	**56 900**
16	**Securitisation exposures in banking book**	**7 305**	9 518	9 047	**877**
17	– IRB ratings-based approach	**–**	–	–	**–**
18	– IRB supervisory formula approach	**2 029**	3 412	2 074	**244**
19	– Standardised approach/simplified supervisory formula approach	**5 276**	6 106	6 973	**633**
	Total credit risk	**510 024**	509 983	540 688	**61 203**
6	**Counterparty credit risk†**	**12 233**	13 183	13 624	**1 468**
7	– SA-CCR	**12 233**	13 183	13 624	**1 468**
10	**Credit valuation adjustment**	**10 328**	10 291	15 745	**1 239**
11	**Equity positions in banking book under market-based approach**	**2 888**	3 709	4 603	**346**
12	Equity investments in funds – look-through approach‡	**–**	–	–	**–**
13	**Equity investments in funds – mandate-based approach‡**	**497**	325	–	**60**
14	Equity investments in funds – fall-back approach‡	**–**	–	–	**–**
15	**Settlement risk**	**–**	–	–	**–**
20	**Market risk^**	**26 586**	27 615	25 694	**3 190**
21	– Standardised approach	**9 111**	8 248	9 363	**1 093**
22	– Internal model approach	**17 475**	19 367	16 331	**2 097**
24	**Operational risk**	**95 575**	102 078	100 371	**11 469**
	– Basic indicator approach	**–**	–	–	**–**
	– Standardised approach	**4 005**	4 465	4 806	**481**
	– Advanced measurement approach	**91 570**	97 613	95 565	**10 988**
25	**Amounts below the thresholds for deduction (subject to 250% risk weight)**	**11 823**	11 439	8 797	**1 419**
26	**Floor adjustment**	**25 159**	15 927	15 501	**3 019**
	Other assets	**22 040**	26 993	23 056	**2 645**
27	**Total**	**717 153**	721 543	748 079	**86 058**

* *FirstRand Bank Limited including foreign branches.*

** *Capital requirement calculated at 12.0% of RWA. The minimum requirement excludes the Pillar 2B capital requirement. The difference to the BCBS base minimum (8%) relates to the buffer add-ons for Pillar 2A, CCyB, capital conservation and the D-SIB as prescribed in the Regulations. The Pillar 2A and CCyB requirements were 0% at 30 June 2021.*

The bank does not apply the foundation internal ratings-based and the supervisory slotting approaches (rows 3 and 4 of OV1 template).

† *Implementation of SA-CCR was 1 January 2021. The bank does not apply the internal model method to counterparty credit risk (row 8 of OV1 template) and there were no other CCRs (row 9 of OV1 template).*

‡ *Implementation of the capital requirements for equity investment in funds was 1 January 2021. Rows 12 – 14 of the OV1 template have now been included in this table.*

^ *There were no switches between trading and banking book during the period under review (row 23 of OV1 template).*

LR1: Summary comparison of accounting assets vs leverage ratio exposure measure*

The table below provides a reconciliation of the published total assets as per the statement of financial position to the leverage ratio exposure measure for the group and bank.

R million		As at 30 June 2021	
		FirstRand Limited	FirstRand Bank Limited**
1	Total consolidated assets as per published financial statements	1 886 280	1 415 029
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(8 405)	–
3	Adjustment for fiduciary assets recognised on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure	–	–
4	Adjustments for derivative financial instruments	(52 992)	(45 832)
5	Adjustment for securities financing transactions (i.e. repos and similar secured lending)	1 324	1 324
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	93 544	75 802
7	Other adjustments	13 934	16 749
8	**Leverage ratio exposure**	**1 933 685**	**1 463 072**

* *Based on month-end balances.*
** *FirstRand Bank Limited including foreign branches.*

LR2: Leverage ratio common disclosure template*

The table below provides a detailed breakdown of the components of the leverage ratio exposure measure for the group and bank.

R million		FirstRand Limited		FirstRand Bank Limited**	
		As at 30 June 2021	As at 31 March 2021	As at 30 June 2021	As at 31 March 2021
	ON-BALANCE SHEET EXPOSURES				
1	On-balance sheet items (excluding derivatives and SFTs, but including collateral)	1 779 526	1 806 648	1 308 420	1 327 672
2	(Asset amounts deducted in determining Basel III Tier 1 capital)	(36 684)	(38 075)	(21 843)	(22 372)
3	**Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of lines 1 and 2)**	1 742 842	1 768 573	1 286 577	1 305 300
	DERIVATIVE EXPOSURES				
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	8 756	13 607	11 840	15 894
5	Add-on amounts for potential future exposure associated with all derivatives transactions[#]	19 714	43 659	20 550	44 566
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework	–	–	–	–
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	–	–	–	–
8	(Exempted CCP leg of client-cleared trade exposures)	–	–	–	–
9	Adjusted effective notional amount of written credit derivatives	5 730	5 625	5 730	5 625
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(4 464)	(4 577)	(4 464)	(4 577)
11	**Total derivative exposures (sum of lines 4 to 10)**	29 736	58 314	33 656	61 508
	SECURITIES FINANCING TRANSACTION EXPOSURES				
12	Gross SFT assets (with no recognition of netting) after adjusting for sale accounting transactions	66 239	57 157	65 713	56 883
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	–	–	–	–
14	Counterparty credit risk exposure for SFT assets	1 324	1 330	1 324	1 330
15	Agent transaction exposures	–	–	–	–
16	**Total securities financing transaction exposures (sum of lines 12 to 15)**	67 563	58 487	67 037	58 213
	OTHER OFF-BALANCE SHEET EXPOSURES				
17	Off-balance sheet exposure at gross notional amount	419 600	390 133	378 524	369 218
18	(Adjustments for conversion to credit equivalent amounts)	(326 056)	(320 072)	(302 722)	(296 124)
19	**Off-balance sheet items (sum of lines 17 and 18)**	93 544	70 061	75 802	73 094
	CAPITAL AND TOTAL EXPOSURES				
20	**Tier 1 capital**	131 536	132 184	97 435	97 461
21	**Total exposures (sum of lines 3, 11, 16 and 19)**	1 933 685	1 955 435	1 463 072	1 498 115
	LEVERAGE RATIO				
22	**Basel III leverage ratio**	6.8%	6.8%	6.7%	6.5%

* *Based on month-end balances.*
** *FirstRand Bank Limited including foreign branches.*
[#] *Decrease driven by refinements to SA-CCR methodology.*

LIQ1: Liquidity coverage ratio

The table below provides a breakdown of the group and bank's available HQLA, cash outflows and cash inflows, as measured and defined according to the LCR standards.

		FirstRand Limited*		FirstRand Bank Limited South Africa*	
R million		Total unweighted value (average)	Total weighted value (average)	Total unweighted value (average)	Total weighted value (average)
HIGH-QUALITY LIQUID ASSETS					
1	Total HQLA		369 928		286 628
CASH OUTFLOWS					
2	Retail deposits and deposits from small business customers, of which:	456 071	39 454	307 498	30 750
3	Stable deposits	91 898	3 037	–	–
4	Less stable deposits	364 173	36 417	307 498	30 750
5	Unsecured wholesale funding, of which:	544 600	264 159	471 002	226 437
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	176 345	44 086	160 486	40 122
7	Non-operational deposits (all counterparties)	362 720	214 538	306 276	182 075
8	Unsecured debt	5 535	5 535	4 240	4 240
9	Secured wholesale funding		3 130		1 352
10	Additional requirements, of which:	268 072	45 399	249 518	43 365
11	Outflows related to derivative exposures and other collateral requirements	16 304	16 304	15 655	15 655
12	Outflows related to loss of funding on debt products	79 257	3 963	75 156	3 758
13	Credit and liquidity facilities	172 511	25 132	158 707	23 952
14	Other contractual funding obligations	–	–	–	–
15	Other contingent funding obligations	193 181	7 544	172 866	6 596
16	**Total cash outflows**		359 686		308 500
CASH INFLOWS					
17	Secured lending (e.g. reverse repos)	1 064	774	1 064	774
18	Inflows from fully performing exposures	99 290	81 340	69 586	56 874
19	Other cash inflows	5 769	5 103	5 645	4 991
20	**Total cash inflows**	106 123	87 217	76 295	62 639
21	**Total HQLA****		312 514		286 628
22	**Total net cash outflow#**		277 326		245 861
23	**Liquidity coverage ratio (%)†**		113%		117%

* *The consolidated LCR for the group (FirstRand) includes FRB, and all other banking subsidiaries. FirstRand Bank Limited's LCR reflects its operations in South Africa.*

** *The weighted values have been calculated after the application of the respective haircuts for HQLA, outflows and inflows. The surplus HQLA holdings by subsidiaries and foreign branches in excess of the minimum required LCR which is not considered as fully transferable has been excluded in the calculation of the consolidated LCR for the group.*

\# *The regulatory cap on inflows is applied per entity and is reflected in total net cash outflow. The total cash inflows balance is prior to the application of the cap.*

† *The LCR is calculated as a simple average of 91 days of daily observations over the period ended 30 June 2021 for FRBSA and the London branch, as well as FNB Botswana and FNB Namibia. The remaining banking entities, including Aldermore, and the India and FNB Channel Island branches, are based on the quarter-end values. The figures are based on the regulatory submissions to the PA.*

LIQ2: Net stable funding ratio

The table below provides a breakdown of the bank's available stable funding and required stable funding components, as measured and defined according to the NSFR standards.

	FirstRand Bank Limited South Africa*				
	a	b	c	d	e
	Unweighted value by residual maturity				
R million	No maturity	< 6 months	6 months to < 1 year	≥ 1 year	Weighted value**
AVAILABLE STABLE FUNDING (ASF) ITEM					
1 Capital:	109 245	–	–	16 826	126 071
2 Regulatory capital	109 245	–	–	16 826	126 071
3 Other capital instruments	–	–	–	–	–
4 Retail deposit and deposits from small business customers:	143 994	222 119	9 812	11 678	350 015
5 Stable deposits	–	–	–	–	–
6 Less stable deposits	143 994	222 119	9 812	11 678	350 015
7 Wholesale funding	241 028	309 908	42 473	140 105	395 270
8 Operational deposits	176 853	–	–	–	88 426
9 Other wholesale funding	64 175	309 908	42 473	140 105	306 844
10 Liabilities with matching interdependent assets			–		
11 Other liabilities:	26 992	19 419	–	11 358	8 601
12 NSFR derivative liabilities		–	–	10 193	
13 All other liabilities and equity not included in the above categories	26 992	19 419	–	1 165	8 601
14 Total ASF					879 957
REQUIRED STABLE FUNDING (RSF) ITEM					
15 Total NSFR HQLA					29 565
16 Deposits held at other financial institutions for operational purposes					
17 Performing loans and securities:					602 459
18 Performing loans to financial institutions secured by Level 1 HQLA	–	56 136	–	3 337	8 951
19 Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	–	41 831	10 161	84 874	96 228
20 Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:	–	67 551	47 140	307 535	318 750
21 With a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk	–	–	–	–	–
22 Performing residential mortgages, of which:	–	4 163	3 763	175 872	120 865
23 With a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk	–	4 013	3 613	162 948	109 729
24 Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	6 547	2 211	5 607	56 695	57 665
25 Assets with matching interdependent liabilities					
26 Other assets:					72 928
27 Physical traded commodities, including gold	18 641				15 845
28 Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs		–	–	32 912	23 027
29 NSFR derivative assets		–	–	7 837	–
30 NSFR derivative liabilities before deduction of variation margin posted		–	–	12 122	1 212
31 All other assets not included in the above categories		–	–	32 844	32 844
32 Off-balance sheet items		438 363			17 961
33 Total RSF					722 913
34 Net stable funding ratio (%)					122%

** The NSFR is calculated as at the month ended 30 June 2021 for FirstRand Bank Limited's operations in South Africa.*

*** The weighted values have been calculated after the application of the respective haircuts for ASF and RSF as defined by the PA.*

LIQ2: Net stable funding ratio

The table below provides a breakdown of the group's available stable funding and required stable funding components, as measured and defined according to the NSFR standards.

		FirstRand Limited*				
		a	b	c	d	e
		Unweighted value by residual maturity				
	R million	No maturity	< 6 months	6 months to < 1 year	>= 1 year	Weighted value**
	ASF ITEM					
1	Capital:	150 852	–	–	18 030	168 882
2	Regulatory capital	150 852	–	–	18 030	168 882
3	Other capital instruments	–	–	–	–	–
4	Retail deposit and deposits from small business customers:	156 779	408 641	43 265	36 265	589 192
5	Stable deposits	–	86 191	16 027	13 534	110 641
6	Less stable deposits	156 779	322 450	27 238	22 731	478 551
7	Wholesale funding	269 764	357 118	62 186	171 359	468 955
8	Operational deposits	176 853	–	–	–	88 426
9	Other wholesale funding	92 911	357 118	62 186	171 359	380 529
10	Liabilities with matching interdependent assets					
11	Other liabilities:	33 448	21 401	383	15 130	13 307
12	NSFR derivative liabilities		–	–	10 694	
13	All other liabilities and equity not included in the above categories	33 448	21 401	383	4 436	13 307
14	**Total ASF**					1 240 336
	RSF ITEM					
15	Total NSFR HQLA					36 288
16	Deposits held at other financial institutions for operational purposes					
17	Performing loans and securities:					870 731
18	Performing loans to financial institutions secured by Level 1 HQLA	–	57 269	–	3 337	9 064
19	Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	–	44 945	16 176	124 297	139 127
20	Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:	–	102 603	61 942	397 669	420 537
21	With a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk	–	–	–	–	–
22	Performing residential mortgages, of which:	–	6 407	5 964	316 268	242 411
23	With a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk	–	5 953	5 519	293 171	222 330
24	Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	6 547	2 500	6 132	58 484	59 592
25	Assets with matching interdependent liabilities					
26	Other assets:					77 919
27	Physical traded commodities, including gold	18 641				15 845
28	Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs		–	–	32 912	23 027
29	NSFR derivative assets		–	–	8 383	–
30	NSFR derivative liabilities before deduction of variation margin posted		–	–	13 022	1 302
31	All other assets not included in the above categories		–	–	37 745	37 745
32	Off-balance sheet items		524 079			19 819
33	**Total RSF**					1 004 757
34	**Net stable funding ratio (%)**					123%

* *The NSFR is calculated as at the month ended 30 June 2021 for FirstRand Bank Limited operations in South Africa and all registered banks and foreign branches within the group.*

** *The weighted values have been calculated after the application of the respective haircuts for ASF and RSF as defined by the Prudential Authority.*

INDEX OF PILLAR 3 DISCLOSURE TEMPLATES AND REGULATION 43

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DEFINITIONS

Term	Definition
Additional Tier 1 (AT1) capital	NCNR preference share capital and AT1 capital instruments, as well as qualifying capital instruments issued out of fully consolidated subsidiaries to third parties less specified regulatory deductions
Common Equity Tier 1 (CET1) capital	Share capital and premium, qualifying reserves and third-party capital, less specified regulatory deductions
Credit loss ratio	Total impairment charge per the income statement expressed as a percentage of average advances (average between the opening and closing balance for the year)
Exposure at default (EAD)	Gross exposure of a facility upon default of a counterparty
FRBSA	FRB excluding foreign branches
Loss given default (LGD)	Economic loss that will be suffered on an exposure following default of the counterparty, expressed as a percentage of the amount outstanding at the time of default
Net income after cost of capital (NIACC)	Normalised earnings less the cost of equity multiplied by the average ordinary shareholders' equity and reserves
Probability of default (PD)	Probability that a counterparty will default within the next year (considering the ability and willingness of the counterparty to repay)
Return on equity (ROE)	Normalised earnings divided by average normalised ordinary shareholders' equity
Risk weighted assets (RWA)	Prescribed risk weightings relative to the credit risk of counterparties, operational risk, market risk, equity investment risk and other risk multiplied by on- and off-balance sheet assets
Tier 1 ratio	Tier 1 capital divided by RWA
Tier 1 capital	CET1 capital plus AT1 capital
Tier 2 capital	Qualifying subordinated debt instruments plus qualifying capital instruments issued out of fully consolidated subsidiaries to third parties plus qualifying provisions less specified regulatory deductions
Total qualifying capital and reserves	Tier 1 capital plus Tier 2 capital

ABBREVIATIONS

ABC	Anti-bribery and corruption
AI	Artificial Intelligence
AIRB	Advanced internal ratings-based
ALCCO	Asset, liability and capital committee
ALM	Asset and liability management
AMA	Advanced measurement approach
AML/CFT	Anti-money laundering and combating the financing of terrorism
ASF	Available stable funding
AT1	Additional Tier 1
BASA	Banking Association of South Africa
BAU	Business as usual
BCBS	Basel Committee on Banking Supervision
BEPS	Base erosion and profit shifting
BIA	Basic indicator approach
C&I	Corporate and institutional
CCF	Credit conversion factors
CCP	Central clearing counterparties
CCyB	Countercyclical buffer
CET1	Common Equity Tier 1
CISCA	Collective Investment Schemes Control Act
CLF	Committed liquidity facility
CMA	Common Monetary Area
CoDI	Corporation for Deposit Insurance
CoFi Bill	Conduct of Financial Institution Bill
CRM	Credit risk mitigation
CRO	Chief risk officer
CRS	Common Reporting Standard
CSA	Credit support annexes
CVA	Credit valuation adjustment
DBRS	DBRS Ratings Limited
DIS	Deposit insurance scheme
D-SIB	Domestic systemically important bank
EAD	Exposure at default
EC	Economic capital
ECAI	External credit assessment institution

ECL	Expected credit loss
EEPE	Effective expected positive exposure
EL	Expected loss
EMTN	European medium-term note
ERM	Enterprise Risk Management
ETL	Expected tail loss
EVE	Economic value of equity
FAIS Act	Financial Advisory and Intermediary Services Act
FATCA	Foreign Account Tax Compliance Act
FBA	Fall-back approach
FCA	Financial Conduct Authority
FICA	Financial Intelligence Centre Act
Flac	First loss after capital
FMA	Financial Markets Act
FRB	FirstRand Bank Limited
FRBSA	FirstRand Bank Limited South Africa
FREMA	FirstRand EMA Holdings
FRGT	FirstRand Group Tax
FRI	FirstRand International Holdings
FRIHL	FirstRand Investment Holdings (Pty) Ltd
FRISCOL	FirstRand Insurance Services Company
FRM	Financial resource management
FSB	Financial Stability Board
FSCA	Financial Sector Conduct Authority
FSLAB	Financial Sector Laws Amendment Bill
GCR	Global Credit Ratings
GDPR	General Data Protection Regulations
GIA	Group Internal Audit
HQLA	High-quality liquid assets
IAA	Internal assessment approach
IBOR	Interbank offered rate
ICAAP	Internal capital adequacy assessment process
IFRS	International Financial Reporting Standards
IMA	Internal models approach
IRB	Internal ratings-based

IRRBB	Interest rate risk in the banking book
ISDA	International Swaps and Derivatives Association
ISMA	International Securities Market Association
LCR	Liquidity coverage ratio
LECL	Lifetime expected credit losses
LGD	Loss given default
LIBOR	London Interbank Offered Rate
LNG	Liquified natural gas
LTV	Loan to value
MBA	Mandate-based approach
MIRC	Market and investment risk committee
MRVC	Model risk and validation committee
MVNO	Mobile virtual network operator
NAV	Net asset value
NCA	National Credit Act
NCD	Negotiable certificate of deposit
NCNR	Non-cumulative non-redeemable
NIACC	Net income after cost of capital
NII	Net interest income
NPLs	Non-performing loans
NSFR	Net stable funding ratio
OECD	Organisation for Economic Cooperation and Development
ORSA	Own risk and solvency assessment
OTC	Over-the-counter
PA	Prudential Authority
PD	Probability of default
PoPIA	Protection of Personal Information Act
PRA	Prudential Regulation Authority
PRECCA	Prevention and Combatting of Corruption Activities Act
PVA	Prudent valuation adjustments
RA	Resolution Authority
RBA	Ratings-based approach
RCCC	Risk, capital management and compliance committee

RDRR	Risk data aggregation and risk reporting
ROE	Return on equity
RSF	Required stable funding
RW	Risk weighted
RWA	Risk weighted assets
S&P	S&P Global Ratings
SA-CCR	Standardised approach for measuring counterparty credit risk
SA-CVA	Standardised approach credit valuation adjustment
SAM	Solvency assessment and management
SARB	South African Reserve Bank
SARS	South African Revenue Service
SETCOM	Social, ethics and transformation committee
SFA	Supervisory formula approach
SFT	Security finance transaction
SM-CCR	Standardised method for measuring counterparty credit risk
SMEs	Small- and medium-sized enterprises
SOFR	Secured Overnight Financing Rate
SONIA	Sterling Overnight Index Average
SPIRE	South African Pandemic Intervention and Relief Effort
SPV	Special purpose vehicle
SSFA	Simplified supervisory formula approach
STI	Short-Term Insurance
sVaR	Stressed VaR
TCFD	Task Force on Climate-related Financial Disclosures
TERS	Covid-19 Temporary Employee/Employer Relief Scheme
TLAC	Total loss-absorbing capacity
TSA	The standardised approach for operational risk
VAF	Vehicle asset finance
VAPS	Value-added products and services
VaR	Value-at-Risk

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