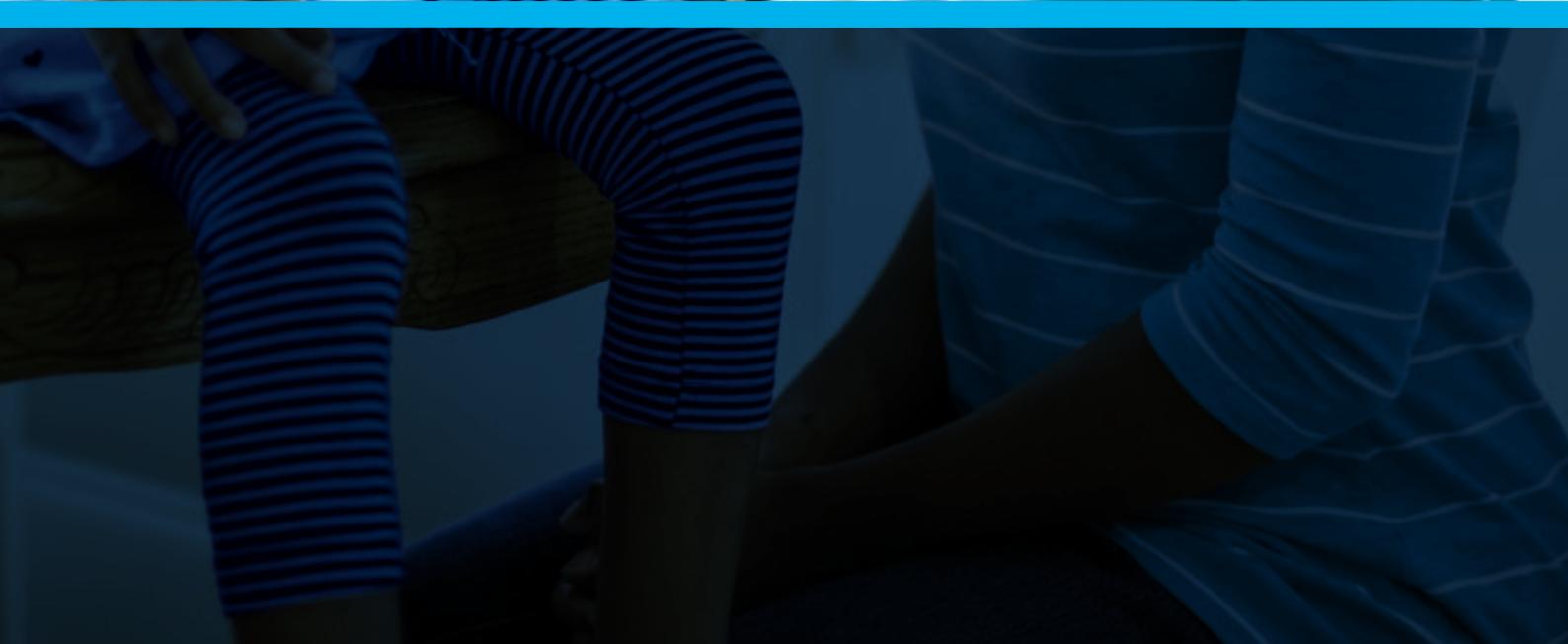




STANDARD BANK GROUP

Risk and capital management report 2018



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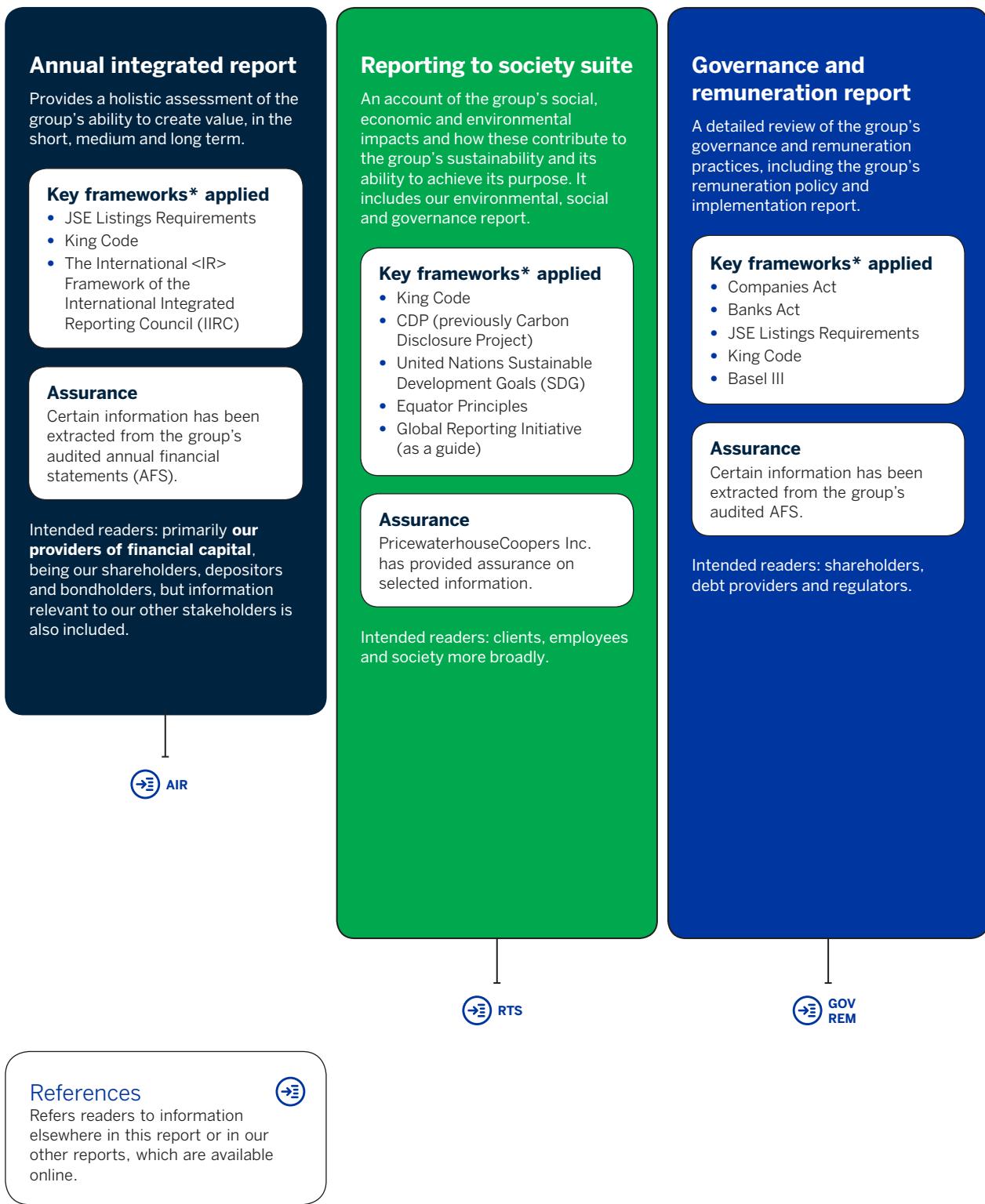
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ibc Contact and other details

Our reporting suite

We produce a full suite of publications that caters for the diverse needs of our stakeholders.

All our reports and latest financial results presentations, booklets and SENS announcements are available online at www.standardbank.com/reporting, together with financial and other definitions, acronyms and abbreviations used.





Read more on page 4.

The invitation to the annual general meeting (AGM) and the notice of resolutions to be tabled at the meeting will be sent separately to shareholders and are also available online.



To assist in the reduction of the group's carbon footprint, we urge our stakeholders to make use of our reporting site to view our reporting suite at www.standardbank.com/reporting or scan the code to be directed to the page.



About this report

This risk and capital management report covers the Standard Bank Group's (the group) banking activities and other banking interests. Certain information pertains to the group's results, which includes the group's interest in Liberty and its other banking interests, and has been denoted as such.

All amounts are in rand millions unless otherwise stated.

Basel pillar 3 table references (OV1, CR1, etc.) have been included in the table headings.

The Basel pillar 3 remuneration disclosure can be found on the following pages of the group's 2018 governance and remuneration report:

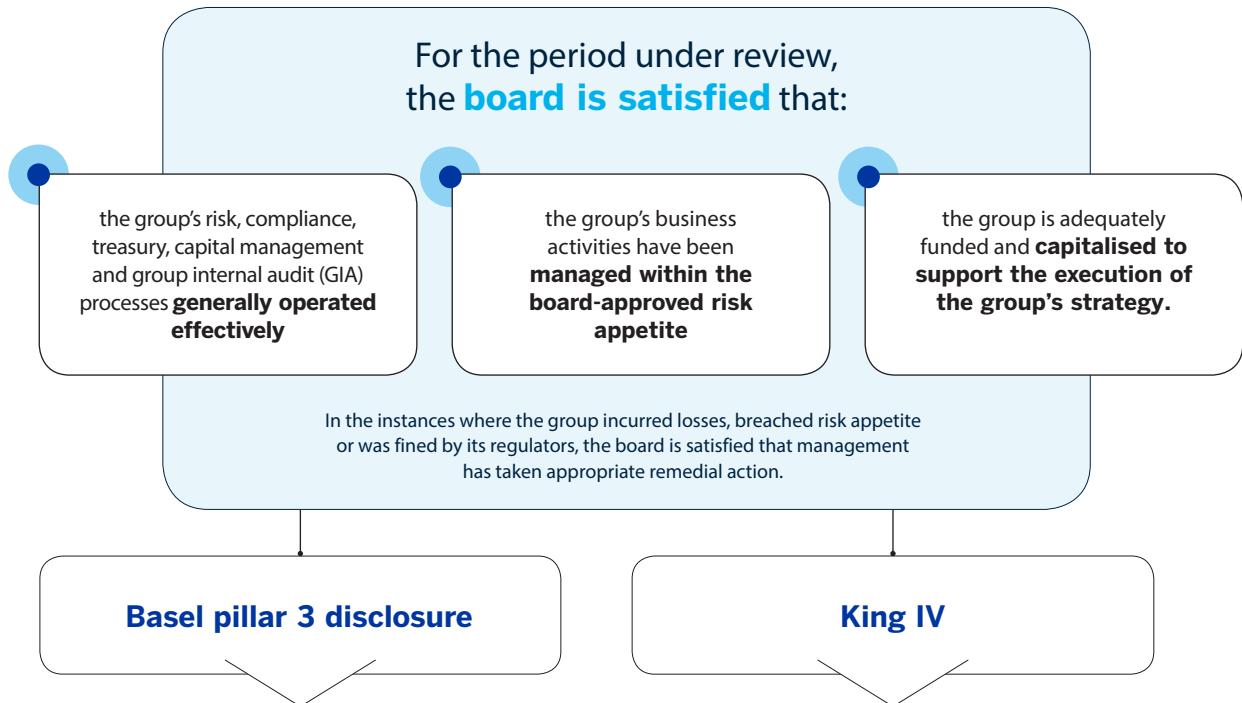
-  GOV REM | REMA: Remuneration policy page 41 – 53, 73 – 75 and 90 – 91.
-  GOV REM | REM1: Remuneration awarded during the financial year page 95.
-  GOV REM | REM2: Special payments page 96.
-  GOV REM | REM3: Deferred remuneration page 97.

 AFS | Risk-related IFRS disclosure can be found in Annexure C of the group's AFS.

 www | The main features of regulatory capital instruments (CCA) can be found on the group's website: reporting.standardbank.com

Board responsibility

The group's board of directors (the board) has the ultimate responsibility for the oversight of risk.



The group abides by a disclosure policy which incorporates the revised Basel pillar 3 disclosure requirements as set out by the BCBS which include:

- guiding principles for Basel pillar 3 disclosure
- frequency of reporting
- governance processes
- internal controls and procedures.

The board is satisfied that this report has been prepared in accordance with the requirements of the group disclosure policy and that an appropriate control framework has been applied in the preparation of this report.

The board is supportive of the King Code. The group's adherence in relation to the specific practices and disclosure requirements attendant to the principles was assessed and all committee mandates are aligned to the new requirements.

Highlights

Neil Surgey
Chief risk officer



12.4 %
CET I RATIO¹
2017: 12.4

0.56 %
CLR
2017²: 0.87

116.8 %
LCR
2017: 135.1

118.6 %
NSFR

Our licence to operate depends on stakeholder trust. This trust is built on our ability to manage risk effectively; to demonstrate compliance with all applicable legislation and regulations; and to ensure our culture and conduct reflect the highest standards of ethical and responsible business practice. This is how we ensure the economic and social sustainability of our business.

Reflections on the year

Global economic growth in 2018 levelled off at 3.7% as geopolitical tensions rose and risk sentiment deteriorated. There was a correction of global stock indices in 4Q18 mainly on the back of the United States (US)/China trade tensions, the uncertainty surrounding the United Kingdom's (UK) exit from the European Union (EU), steadily rising US interest rates and the imminent end of the European Central Bank's quantitative easing programme.

Economic growth in sub-Saharan Africa improved slightly to 2.9%, while the South African (SA) economy only grew by a disappointing 0.7%, following two quarters of recession. The outlook for 2019 remains more positive with growth estimates of 1.3%, though a lot will hinge on the success of the turnaround strategy for Eskom.

Sovereign weakness and the associated foreign currency liquidity shortages remained a feature of 2018, and we have continued to proactively manage our exposure to concentration in all sectors. In SA, portfolio risks remained elevated in particular state-owned enterprises, and the consumer, construction and cement sectors. The situation in Zimbabwe remains a concern given the recent social unrest and increased

political risk together with the associated transfer and convertibility risk. Our credit portfolio was well-controlled and managed in difficult circumstances and the credit loss ratio (CLR) for the group's banking activities declined to 56 basis points (bps) from 87 bps in 2017. The group CLR would have been 71 bps after adjusting for IFRS 9-related accounting impact for interest in suspense.

The group's risk appetite statement (RAS) sets out the aggregate level and types of risk the group is willing to accept to meet its strategic objectives. The strong link between our risk appetite and our strategy is key to ensuring our long-term sustainable growth and profitability. Our aim is to instil conscious risk-taking throughout the group, thereby making strategically informed risk decisions in pursuit of our identified growth opportunities. This consistent approach to risk helps ensure we manage our business and the associated risks in a manner that balances the interests of clients and other key stakeholders while protecting the safety and soundness of the group.

Risk is everyone's business and our material risks are monitored, managed and mitigated through the three lines of defence model. Key business lines are responsible for identifying and managing risks, the group risk function provides

¹ CET I ratio phased-in excluding unappropriated profit.

² Restated.

the necessary oversight and challenge to ensure effectiveness while GIA provides independent assurance.

Stress testing is a vital internal risk management tool that informs decision-making at various levels within the group. We continually refine our internal models to determine the impact of stress scenarios, building closer alignment between risk and financial planning. Our comprehensive stress tests assess our ability to withstand prevailing and emerging risks. In 2018, these included an increase in global protectionism, a rapid global asset price decline, as well as the strained social and political environment in SA. The results of our tests indicate that the group is well-capitalised and able to handle these stress scenarios should they materialise. In 2018, we also participated in the South African Reserve Bank's (SARB) common stress test to assess the resilience of the SA banking sector. Our capital ratios, after considering strategic management actions, exceeded the minimum capital requirements under the scenarios applied.

In an evolving world that is interconnected through technology, it is becoming vital for the group to remain forward-looking in its management of the risk environment. Our top risks and emerging threats process provides for continuous assessment and monitoring of current risks and emerging threats, thereby equipping the group to identify these potential risks and manage and mitigate them effectively. Our top risks remained unchanged in 2018 and are discussed in more detail on page 24.

Financial crime and cyber risk remain priority focus areas, with media reports highlighting the increasing sophistication of cyber-attacks and how the targeting of payments by organised cyber-criminals has become a major threat across the industry. Distributed-denial-of-service, payment infrastructure and ransomware attacks are an increasing threat to financial institutions and we have continued to invest in strengthening our capability to prevent, detect and respond to this increasingly ominous cyber-threat environment.

Looking ahead

Economic conditions are likely to remain challenging in 2019 with US and China trade tensions and Brexit continuing to impact global financial markets. At this stage, there is no clarity on the future relationship between the UK and EU or the implementation period for the UK's formal exit from the EU. Global growth is therefore expected to weaken slightly to 3.5%.

While not immune from global risks, the outlook for sub-Saharan Africa is positive with growth expected to accelerate to 3.5% in 2019. SA is likely to be a tale of two halves with elections set for May 2019 which may dampen growth in 1H19 as political and policy uncertainty undermine investment and growth. Corporate investment is expected to increase in 2H19, but much will depend on the rate of policy progress, structural

reform and the return of a stable supply of electricity. Provided there are no further downgrades by rating agencies, we expect growth of 1.3% in 2019.

The improving prospects across our African network provides a favourable outlook for our business. By continuing to dynamically manage risk appetite across geographies and sectors, as well as accelerating the digital transformation of the risk function, we will help our clients capitalise on opportunities presented by this growth. We will continue to mitigate portfolio risks related to foreign currency liquidity concerns in certain jurisdictions while prudently managing country-specific risks and country risk appetite. Through optimising the allocation of our available financial resources, we will endeavour to deliver sustainable earnings growth and a return on equity (ROE) in our 18%-20% target range.

Highlights on the performance of each of our core risk types follow in this subsection.



CAPITAL MANAGEMENT

Year in brief

The group remained adequately capitalised above minimum regulatory requirements.

The impact of the IFRS 9 implementation on 1 January 2018 was a decrease in the common equity tier 1 (CET 1) ratio of 70 bps as at the date of initial application, which represented the fully-loaded IFRS 9 transition impact. The impact on the group's CET 1 ratio after taking into account the Prudential Authority's three-year phase-in provision was a decrease of 18 bps. The group's strong capital adequacy position allowed for the absorption of the CET 1 capital impact. IFRS 9 had a small impact on the group's total capital adequacy.

The BCBS published the final Basel III post-crisis reform proposals in December 2017 with further updates to the market risk framework in January 2019. The more significant reform proposals are due to be implemented from 1 January 2022, with transitional arrangements for the phasing-in of the aggregate output floor from 1 January 2022 to 1 January 2027.

Focus areas for 2019

During 2019, the group will focus on:

- optimising the level and composition of capital with due consideration of business plans, as well as current and future regulatory requirements
- effectively allocating resources, including capital and liquidity between product lines, trading desks, industry sectors and legal entities to enhance the overall group economic profit and ROE
- further analysing the impact of the Basel III post-crisis reform proposals on the group's capital adequacy ratios and commencing with the development of systems and processes to support the new requirements
- engaging with the SARB on the implementation of the Basel III post-crisis reform proposal, including areas of national discretion specified by the BCBS.



RISK APPETITE AND STRESS TESTING

Year in brief

During 2018, the following key issues impacted on our operating environment:

- rising geopolitical volatility leading to an increased risk of trade tensions and de-globalisation
- the unsettled social and political environment
- capital outflows from emerging market economies
- increased sovereign debt stress in some African countries
- threats to the stability of the financial sector in both SA and across the African continent.

Additionally, sovereign risk arising from elections in certain countries, policy changes and spill-over effects from SA were also considered as risks specific to individual African countries. These formed the basis of various macroeconomic stress testing exercises performed during the year within the group and individual legal entities. The group continued to use stress testing and risk appetite as a key risk management tool at the group, business unit, legal entity and risk-type level.

Focus areas for 2019

Stress testing has evolved from a regulatory tool used by supervisors to assess banks' ability to withstand stress, to an internal risk management tool. Embedding the use of stress testing results to benefit risk management and decision-making at various levels in the organisation is ongoing, driven by a focus on:

- continual refinement of internal models to determine the impact of stress scenarios
- continual use of stress testing and risk appetite in strategic and financial planning
- monitoring the consequences of a number of potential events, including:
 - political and policy changes in SA and elsewhere
 - potential economic disruption in key markets
 - increased competition from new market entrants.



CREDIT RISK

Economic growth remained depressed throughout the year, with business confidence continuing to reflect the uncertainty associated with the economic and political outlook across some of the group's presence countries. This led to ongoing business and consumer challenges alongside affordability constraints which were exacerbated by increases in tax, petrol, electricity and other costs leading to reductions in real income growth. These factors translated into reduced consumer spending and consequently household and corporate credit demand remained subdued.

Year in brief

Although demand for credit was subdued, and despite the constrained macroeconomic conditions, affordability pressure and depressed business confidence, some consumer resilience was seen. Growth of the group's gross loans and advances book was 8.1% with Personal & Business Banking (PBB) registering an 8.7% increase and Corporate & Investment Banking's (CIB) loans and advances book growing by 8%. Losses across the portfolio have been well managed, as evidenced by the improvement in the total credit loss ratio (CLR) for the group from 0.87% (restated) at the end of 2017 to 0.56% for 2018, although some of this reduction (0.10%) is due to an accounting interpretation amendment, with the release of interest in suspense on cured accounts to the credit impairments line.

In PBB, the focus was on effecting improvements in the automation of customer level risk-decisioning, the deployment of targeted risk appetites at regional level and continued enrichments in regional credit-decisioning capabilities to support the customer-centric organisational design. Collection operations remain a key focus area and further enhancements were implemented throughout the year. The PBB CLR has improved from 1.20% in 2017 to 0.81% in 2018 with a decrease in impairments in both the SA and Africa Regions portfolios. Lower credit losses in SA were largely driven by higher post write-off recoveries, operational enhancements in customer credit ratings and continued improvements in collection processes. This was partially offset by the increased impairment cost associated with new originated business, limit disbursements alongside increased default balances resulting from the protracted legal environment, and a handful of large exposures. Lower PBB Africa Regions credit losses are driven primarily by Nigeria, Uganda and Zimbabwe on the back of improved risk performance, enhanced collection strategies, a lower provisioning requirement on highly collateralised non-performing loans (NPL) and increased post write-off recoveries.

The 8% growth in CIB's credit exposures was delivered in a challenging lending environment. The more muted increase on a constant currency basis reflects the significant volatility of currencies such as the SA rand over the year. Portfolio growth was generated through higher exposure to key sectors financial institutions, consumer and diversified industrials. There continues to be appetite for more exposure to the mining and metals, and oil and gas sectors in particular, driven by improved fundamentals across presence markets. The outlook for appetite for other sector risk was adjusted downwards in certain markets and sectors where unfavourable economic and regulatory trends were noted. The CLR for CIB improved to 0.16% in 2018 from 0.34% in 2017, reflecting the continued sound management and control of credit risk across the portfolio.

These results include the impact of the adoption of IFRS 9 which replaced IAS 39 Financial Instruments: Recognition and Measurement with effect from 1 January 2018. IFRS 9 has introduced changes to the classification and measurement of financial assets and liabilities as well as new impairment requirements, particularly in terms of accounting for expected credit losses (ECL) resulting in the earlier recognition of credit impairments.

Focus areas for 2019

In a climate that continues to expect marginal improvements in economic growth, with associated increases in investment and lending opportunities, the group will focus on the following in 2019:

In the group's PBB portfolio:

- improving automated origination decision-making through enhanced systems, processes and analytics
- the effectiveness of collections and early, proactive engagements with distressed customers
- targeting high-quality customers and sectors, with proactive adjustment of risk appetite by sector and country to reflect opportunities and challenges.

In the group's CIB portfolio:

- targeting high value customers within defined risk appetite parameters and in desirable sectors and geographies
- prudent management of counterparty, sector and country concentrations remains a risk management priority
- leveraging existing and new digital channels, integrating stress testing with planning and budgeting and actively managing and adjusting a forward-looking risk appetite
- improving the coordination of functional risk management across the business unit and group.



COMPLIANCE RISK

A significant change in the SA regulatory environment has been the implementation of the Financial Sector Regulation Act, through which the Financial Services Board, under the Financial Services Board Act, was transformed into the Financial Sector Conduct Authority (FSCA), from April 2018. Against this backdrop, the group continues to strengthen its governance environment through the embedment of the conduct risk management framework.

Year in brief

The revised conduct risk management framework informed our approach to identifying, assessing and managing conduct risk, through enhanced reporting and monitoring that considers fair customer outcomes in material business decisions. Conduct metrics were developed to measure progress and will continue to be assessed regularly by the group's senior executives. An ethical culture remains essential to our long-term success, and with a strong tone from the top, the group continued embedding its values through continuous engagement with employees and customers, together with an ongoing review of processes, practices and policies.

Compliance supported the group's focus on client centricity by simplifying on-boarding processes both in the Africa Regions and SA. Both the newly established Prudential Authority and the FSCA commenced monitoring of the group's delivery of good customer outcomes, and the compliance team assisted executive management in further entrenching a culture of compliance through targeted training initiatives.

The compliance risk management function enhanced its digitisation capabilities to more efficiently manage increasing regulatory requirements and supervisory and client expectations. This included ensuring that systems are fit-for-purpose, particularly for surveillance and reporting capability in all jurisdictions. Compliance introduced the use of artificial intelligence (AI), predictive analytics, machine learning and process automation to support the transition to a data and technology-driven capability to facilitate personalised client journeys, and to simplify the client experience, in a multinational client franchise.

Enhancement of compulsory compliance training continued, with the rollout of an agile digitised system that enables staff in all the group's operations to complete their training on any smart device. E-learning focused on behaviour and performance outcomes and not only on factual knowledge transfer. This included compulsory training for all staff members, contractors and third-party service providers, as well as training to various group boards, to ensure that they are aware of their compliance obligations. Board members, executive management and employees were made aware of their regulatory and legislative responsibilities through advice provided by group compliance, formal training, awareness sessions and/or face-to-face training. This included bespoke training to regulators in various jurisdictions. Consequence management was applied for non-completion of compulsory compliance training.

The monitoring of compliance with laws, rules and regulations was standardised across the group, using a methodology that was developed to align the combined assurance model.

Opportunities for growth that were made available to compliance staff members for their continued development included intra-group secondments, job shadowing and rotation opportunities.

Focus areas for 2019

2019 focus areas will be guided by the group's strategy, with key initiatives aligned to client centricity, operating as an integrated organisation, digitisation, employee engagement, and risk and conduct.

The FSCA, among others, aims to ensure that financial institutions develop and distribute products and services in a manner that ensures that areas of conduct risk are identified and mitigated, and that treating customers fairly (TCF) principles are adhered to. Strengthening the culture remains essential for long-term success. With a strong tone from the top, the group has instilled its values and ethics in processes, practices and policies, and through continuous engagement with employees.

A new piece of legislation that will fall under the authority of the FSCA, the Conduct of Financial Institutions (COFI) Bill, is the next phase of legislative reforms aimed at solidifying regulation of how financial institutions treat their clients. To ensure that the group provides customers with fair outcomes, the group will

continue making enhancements to, and increasing its focus on, key business decisions, including product approval, business strategy developments and conduct-related remediation, all of which will be monitored and reported through formal conduct governance committees. The COFI Bill will have a significant impact on the group's licensing and registration regime.

Data use is being further refined to simplify the client experience, assisting in the process of having a single view of clients from a financial crime compliance perspective, across all business areas. Integrated systems will continue to be deployed across the group to support both a frictionless client experience and supervisory expectations resulting from legislative changes.

Attention to mandatory compliance training will continue, and role-specific interventions for high risk roles across the group will be developed to support customer service outcomes.



COUNTRY RISK

Year in brief

Sub-Saharan Africa continues to recover and show modest economic growth across presence markets. Notwithstanding improved economic growth, there have been some pronounced risks in 2018 such as elevated political risks experienced around elections in the Democratic Republic of the Congo (DRC) and Zimbabwe, regulatory uncertainties presented by policy changes in Tanzania, security incidents in the northern region of Mozambique, increasing sovereign debt and external vulnerability in Zambia and below average economic growth in SA.

The focus remains on mitigating transfer and convertibility risks and managing risk appetite within agreed parameters.

The group continues to proactively manage country-specific risks and concentrations on a forward-looking basis.

Focus areas for 2019

An overall improved outlook is expected across sub-Saharan Africa, but may be weighed down by global trade tensions and elevated political risks. The group anticipates continuing sovereign debt vulnerability in some countries as political and social issues continue to weigh down on fiscal consolidation and the regulatory environment. An improvement in commodity prices is expected to result in higher foreign exchange reserves and reduced currency liquidity shortages, despite some markets like Angola having declining oil production levels and Zambia with possibly lower copper production, which may not reap the full benefit of improved commodity prices, due to lower production.

The growth outlook for East Africa remains strong with markets such as Kenya, Uganda and Tanzania expecting to achieve average growth rates of around 6%, although Tanzania presents a challenging policy environment in mining and telecoms.

Robust growth is expected for the West Africa region with the recovery in Nigeria expected to be supported by continued stability in the foreign exchange market. Growth in Ghana is expected to remain strong.

A mixed set of results is expected in southern and central markets with continued sovereign debt ramp up in Zambia, and political and fiscal challenges in Zimbabwe and DRC. In addition to fiscal consolidation and increased confidence in the political environment, investment and growth will be required to support a sustained liberalisation of foreign exchange markets

in Zimbabwe. Angola is expected to recover from a recessionary period in 2018 supported by increased foreign exchange rate flexibility, the fiscal consolidation required to reduce debt levels and a strengthening of the banking system. An International Monetary Fund facility is in place to support stated economic reforms. This is expected to provide a sustainable base for growth.

A lower growth forecast for SA is expected to weigh on prospects in the southern region with pronounced currency impact on countries in the common monetary area and downside risks to revenues derived from the Southern Africa Customs Union.

Global headwinds and the trade war present downside risks to the outlook for sub-Saharan Africa.

The focus will continue to be on managing country-specific risks, extending local currency risk products and mitigating foreign currency liquidity risks. The effect of a slowdown in global economic growth, elevated political risk, policy uncertainty, climatic changes and related emerging risks remains a focus in relevant markets.

'Africa is our home', and with this in mind, the group has a rigorous focus on countries in which it has a local presence. Having a significant local bank in each of these countries provides the group with a competitive edge in information flow and the management of local conditions and risks.



LIQUIDITY RISK

Appropriate liquidity buffers were held in line with regulatory requirements and the ongoing assessment of liquidity risk in stress market conditions, in the geographies in which the group operates.

Year in brief

The group maintained both the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR) in excess of the minimum regulatory requirements throughout 2018.

Proactive liquidity management in line with group liquidity standards ensured that, despite volatile and constrained liquidity environments in certain jurisdictions, adequate liquidity was maintained to fully support balance sheet strategies.

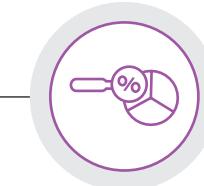
The group successfully increased longer-term funding in excess of 12 months, raising R28.3 billion through a combination of negotiable certificate of deposits, senior debt and syndicated loans.

The group continued to closely monitor the implications of further credit rating agency downgrades for both local and foreign currency, which could still have a significant impact on the group's access to and cost of foreign currency liquidity sources.

Focus areas for 2019

During 2019, the group will focus on:

- continued balance sheet optimisation strategies across the group, taking into account that both LCR and NSFR have been fully implemented at the 100% minimum regulatory requirement
- leveraging the extensive liability franchises across the group to ensure that the group has the appropriate amount, tenor and diversification of funding to support its current and forecast asset base while minimising cost of funding
- ensuring the availability of mitigating actions to address the implications of potential further SA sovereign credit rating downgrades, with continued focus on diversifying its funding base across both rand and foreign currency as well as across product and jurisdiction
- ongoing system enhancements for continued data quality, efficiency and effectiveness, especially when considering the daily liquidity reporting requirements, across all banking subsidiaries
- ongoing enhancements to funds transfer pricing methodology to steer further balance sheet optimisation and growth strategies.



MARKET RISK

Year in brief

The group maintained its trading book market risk and banking book interest rate risk within the approved risk appetite and tolerance levels. The negative emerging markets sentiment adversely affected SA equities and interest rate markets with resultant lower client flows. Declining interest rates in key markets had an impact on net interest income. The group continued to enhance its interest rate risk management and made changes to its global markets and market risk technology. The group participated in the review of proposed changes to regulations impacting trading and banking book positions.

Focus areas for 2019

The group will continue to focus on monitoring and managing the traded market risk, banking book interest rate, equity risk, own equity-linked transactions, foreign currency risk and associated hedges in the context of current market volatility, including monetary policy decisions and rating changes.

The implications of the revised trading book regulations and interest rate risk in the banking book (IRRBB) standards recently published will be a continued area of focus, together with the resulting system enhancements required.



INSURANCE RISK

Insurance risk applies to the long-term insurance operations in Liberty and the short-term insurance operations in Liberty and Standard Insurance Limited (SIL).

Long-term insurance

Year in brief and focus areas for 2019

In 2017 the value of Liberty's new business was well below budgeted long-term expectations due to lower margins on products sold and lower-than-budgeted business volumes. A financial remediation programme was initiated to expedite the changes required in products, underwriting, pricing and customer experience to improve the value of new business. Focus was also placed on tighter expense management and simplifications in products and operational processes to drive further expense efficiencies to maintain competitive expense assumptions in the valuation of the policyholder liabilities. In 2018 Liberty has implemented changes to products, pricing, and underwriting and has increased focus on expense management in order to improve the value of new business. This imperative remains the key focus for 2019.

Short-term insurance

Year in brief

On 1 July 2018 the Prudential Authority released new Prudential Regulations which enhanced the regulation of capital and the risk and control environment within the business. Although these requirements have been partially embedded through the solvency assessment and management (SAM) journey, SIL developed a plan to ensure holistic embedding of new requirements.

The matured risk environment within SIL sees that risks are managed on an enterprise basis, with more clearly defined responsibilities between the various lines of defence.

SIL's focus areas for 2019

- customer centricity: SIL is revising the customer value proposition to ensure competitiveness in a rapidly changing environment. This includes the use of technology e.g. telematics, and the exploration of alternative distribution channels and digitisation
- operational efficiency: SIL is driving claims efficiencies through enhanced service provider management. In addition, data mining capabilities are constantly being improved to optimise the underwriting and pricing capabilities
- implementation of Prudential Requirements by updating governance documentation underpinning the risk management system, embedding these requirements within business by means of socialisation, gap analyses and self-assessments
- embedding the own risk and solvency assessment within business to ensure appropriate linkage among risks, capital and strategic decision-making.



OPERATIONAL RISK

The group's operational risk profile remained well within appetite despite economic and political volatility, pressures on growth and ongoing changes to regulatory and technological landscapes.

Year in brief

The group's operational risk landscape proved to be resilient amid a wide range of economic, political, social, and regulatory uncertainties.

The group streamlined its operational risk governance documents during the year to better support client centricity and integration across the business. The group successfully embarked on a universal fraud risk management journey, toward improving fraud risk management, operational efficiencies, fraud rules governance and the customer experience during a fraud incident.

Operational risk is exploring the potential of machine learning, AI and real-time predictive analytics, to create efficiencies in risk profile management.

The group is cognisant of the mounting risk posed by cyber-crime. Financial services remains the most targeted economic sector from a cyber-threat perspective. Significant investments were made to enhance security. Cyber risk receives extensive focus at various governance and management committees

across every level of the organisation. During 2018 the group intercepted and successfully mitigated a number of attempted cyber-threats, without impact to the group's operations or customers, largely as a direct result of strengthened cyber-defence capabilities implemented in recent years.

The most significant incident was an extortion attempt at Liberty. This was managed successfully, with no material impact to clients.

The group continues to partner with technology companies to deliver digitised and innovative products to its customers. Due diligence is exercised to minimise the risks associated with such partnerships. Robust controls ensured effective management of sensitive information and data, application of minimum standards on logical access and various security controls and anti-fraud measures when partnering with fintechs, to complement existing internal controls.

AI, robotics and big data services are being implemented to detect and prevent suspicious behaviour within customers' profile activities and transactions. In the last year, the group has formed a dedicated digital channels fraud lab to optimise the response to new threats such as those inherent in cryptocurrency.

Business resilience (BR) improved significantly in 2018. The group conducted successful test simulations and exercises on business continuity management, and recovery and resolution readiness, to ensure preparedness in times of stress.

Focus areas for 2019

Operational risk will continue to focus on managing risk within appetite and identifying opportunities that are rewarding to both the client and the group. Operational risk will focus on maturing oversight of all non-financial risks to further improve the customer experience. Digitisation remains a top priority, together with the use of data to enhance predictive capabilities and support a forward-looking culture. To deliver this, the group will continue to invest in tools to enable agile risk management.

Strengthening defences against cyber-crime, to provide greater security for clients and ensure the safety of online transactions remains a priority. Initiatives include:

- additional security controls across all platforms and systems, with stronger customer registration processes
- enhanced customer and staff authentication
- real-time customer account monitoring at a transactional level
- enhanced privileged user management controls.

Cyber-readiness is increasingly focused towards strengthening people and process capability, in addition to technology investment.

The group continues to improve its capability to anticipate and respond to disruptive incidents in a more integrated and agile manner.

Investment in card fraud prevention and detection capabilities will also be maintained. This will entail a review of rules, models and operations environments to determine effective ways to create and monitor fraud rules and minimise occurrences of card fraud.

In Africa Regions, increased focus will be placed on the quality of IT service, particularly as it pertains to service, availability and stability of systems.

The group will work toward maximising the value of data while ensuring that information is secure. The group remains committed to driving a culture that acknowledges data as an asset while continuing to embed information risk management, through targeted awareness, enhanced monitoring and enforcement of policies.

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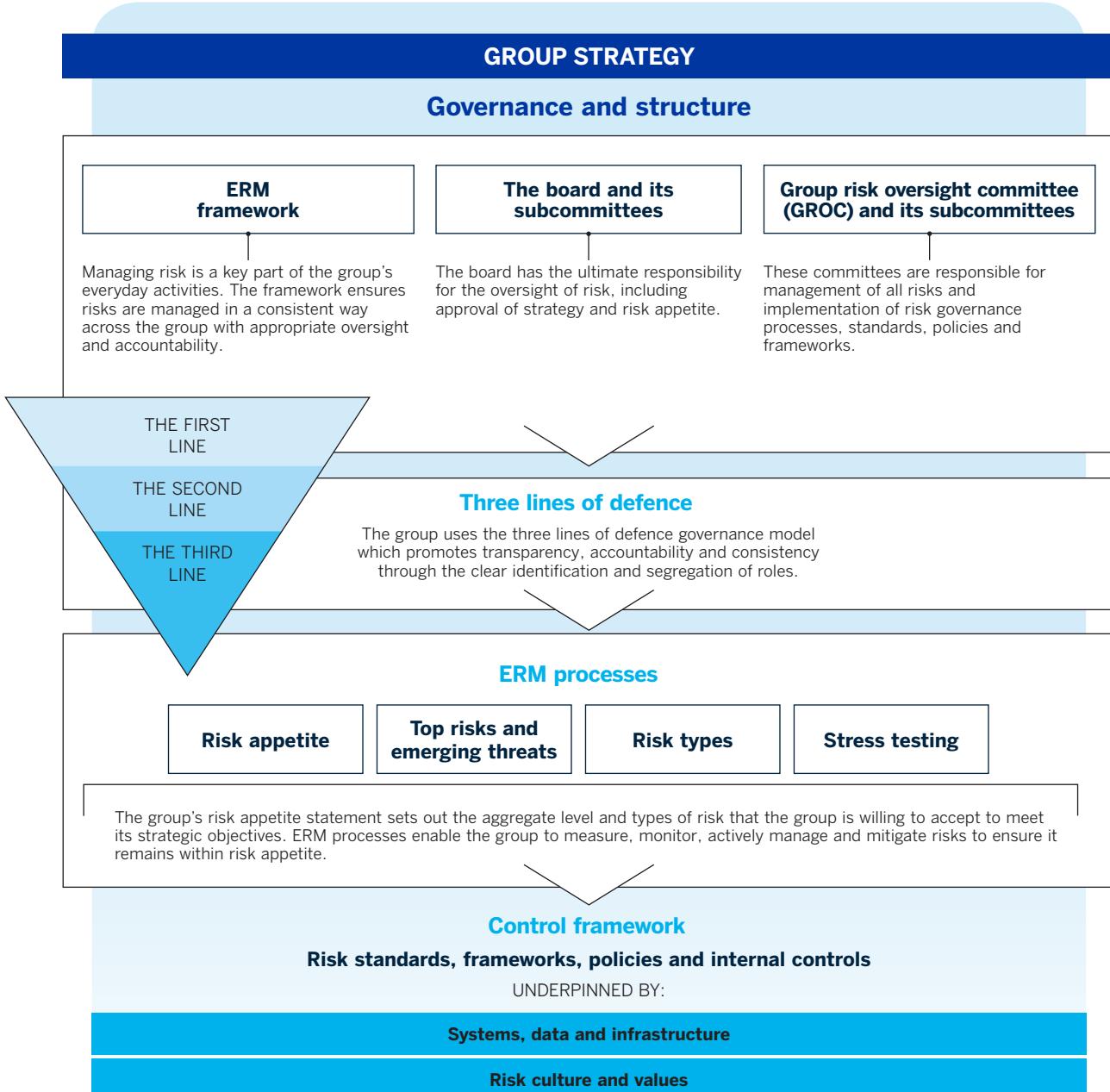


Enterprise risk management



KEY COMPONENTS OF ENTERPRISE RISK MANAGEMENT

The group has an ERM framework which ensures a consistent approach to managing risk with appropriate oversight and accountability, together with a clear risk appetite aligned to the group strategy. A holistic and forward-looking view is taken of the risks being faced, with continual identification and assessment of both current risks and emerging threats.



RISK GOVERNANCE

The group's approach to managing risk and capital is set out in the group's ERM governance framework, which is approved by the group risk and capital management committee (GRCMC).

The framework has two components



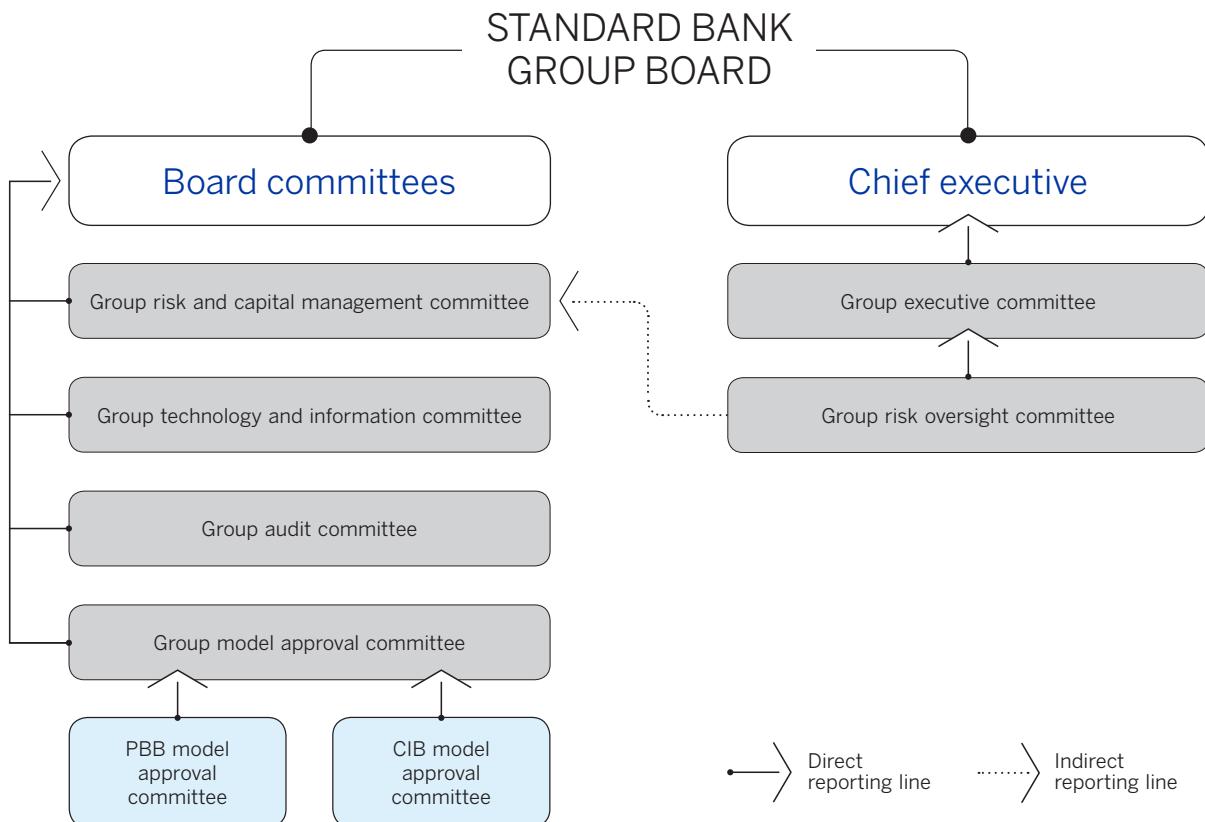
Governance documents comprise standards, frameworks and policies which set out the requirements for the identification, assessment, measurement, monitoring, managing and reporting of risks and the effective management of capital.

Governance standards and frameworks are approved by the relevant board committee. Group policies are approved by the group executive committee or subcommittee, relevant GROC subcommittee, GROC itself or, where regulations require board approval, by the board or relevant board committee.

Business line and legal entity policies are aligned to these group policies and applied within their governance structures.



Governance committees are in place at both a board and management level. These committees have mandates and delegated authorities that are regularly reviewed.



The board committees that are responsible for the oversight of the group's ERM comprise the GRCMC, the group audit committee (GAC), the group technology and information committee and the group model approval committee.

The key roles and responsibilities of these committees, as they relate to ERM, are summarised in the sections that follow.

Board subcommittees

GRCMC

The GRCMC provides an independent objective oversight of risk and capital management in the group. It also reviews and assesses the adequacy and effectiveness of the group ERM governance framework, and the integrity of risk controls and systems. In addition, the GRCMC:

- sets the direction for how risk and capital management should be approached and addressed in the group
- reviews and approves the RAS for the group's banking activities

- reviews risk management reports and monitors the group's risk profile
- evaluates and agrees the opportunities and associated risks that the organisation should be willing to take.

The chairmen of the board, the GAC, the remuneration committee, the group social and ethics committee, the group model approval committee, and the group technology and information committee are all members of the GRCMC. This common membership supports an integrated view of financial, IT and risk controls and ensures that relevant finance and risk input is considered in determining levels of compensation.

GAC

The GAC has oversight of the group's financial position and makes recommendations to the board on all financial matters, financial risks, internal financial controls and compliance. In relation to ERM, the GAC plays a role in assessing the adequacy and operating effectiveness of the group's internal financial controls. In addition, the GAC:

- monitors and reviews the adequacy and effectiveness of accounting policies, financial and other internal control systems and financial reporting processes
- provides independent oversight of the group's assurance functions, with particular focus on combined assurance arrangements, including external audit, internal audit, compliance, risk and internal financial control functions
- reviews the independence and effectiveness of the group's external audit, internal audit and compliance functions
- assesses the group's compliance with applicable legal, regulatory and accounting standards and policies in the preparation of fairly presented financial statements and external reports, thus providing independent oversight of the integrity thereof.

Membership comprises six independent non-executive directors, which includes the group technology and information, and group remuneration committee chairmen.

To ensure the independence of the second and third lines of defence functions, the chairman of the GAC meets individually with the group chief compliance and data officer (GCCO), the group financial director and the group chief audit officer, without management being present, on a quarterly basis and as required.

Group technology and information committee

The group technology and information committee's purpose is to assist the board in fulfilling its corporate governance responsibilities with respect to technology and information, and reports to the board through its chairman. In line with the King Code and the board briefing on IT governance, as published by the IT Governance Institute, this committee ensures that prudent and reasonable steps are taken with respect to technology and information governance.

The committee has the authority to review and provide guidance on matters related to the group's IT strategy, budget, operations, policies and controls, the group's assessment of risks associated with IT, including disaster recovery, business continuity and IT security, as well as oversight of significant IT investments and expenditure.

The committee oversees the governance of technology and information in a way that supports the organisation in setting and achieving its strategic objectives.

Membership comprises four independent non-executive directors, two non-executive directors, and two executive directors.

Group model approval committee

This committee assists the board in discharging its obligations for model risk as it pertains to the advanced internal rating-based (AIRB) approach for the measurement of the group's exposure to credit risk as envisaged in the regulations of the Banks Act.

It performs functions that may be prescribed by regulation, from time-to-time, including the evaluation of risk evaluation models that may need to be approved by the committee before being used to calculate a regulatory capital charge.

Membership comprises a non-executive director, the chief executives of the group, PBB and CIB, the group financial director and the group chief risk officer (CRO).

This committee is supported by the PBB and CIB model approval subcommittees, with the models being assigned to these three committees for approval based on an assessment of the materiality of each model.

Management committees

GROC is a subcommittee of the group executive committee. It provides group-level oversight of all risk types and assists the GRCMC in fulfilling its mandate. As is the case with the GRCMC, GROC calls for and evaluates in-depth investigations and reports based on its assessment of the group's risk profile and external factors. GROC is chaired by the group CRO.

GROC delegates authority to various subcommittees which deal with specific risk types or oversight activities. Material matters are escalated to GROC through reports or feedback from each subcommittee chairman.

CIB credit governance committee

Chaired by: CIB CRO

PBB credit governance committee

Chaired by: PBB CRO

Group asset and liability committee (ALCO)

Chaired by: group financial director

Group compliance committee

Chaired by: GCCO

Group country risk management committee

Chaired by: group CRO

Group equity risk committee (ERC)

Chaired by: CIB CRO

Group internal financial control governance committee

Chaired by: group financial director

Group operational risk committee (GORC)

Chaired by: group head of operational risk management

Group sanctions and client risk review committee

Chaired by: group CRO

Group stress testing and risk appetite committee

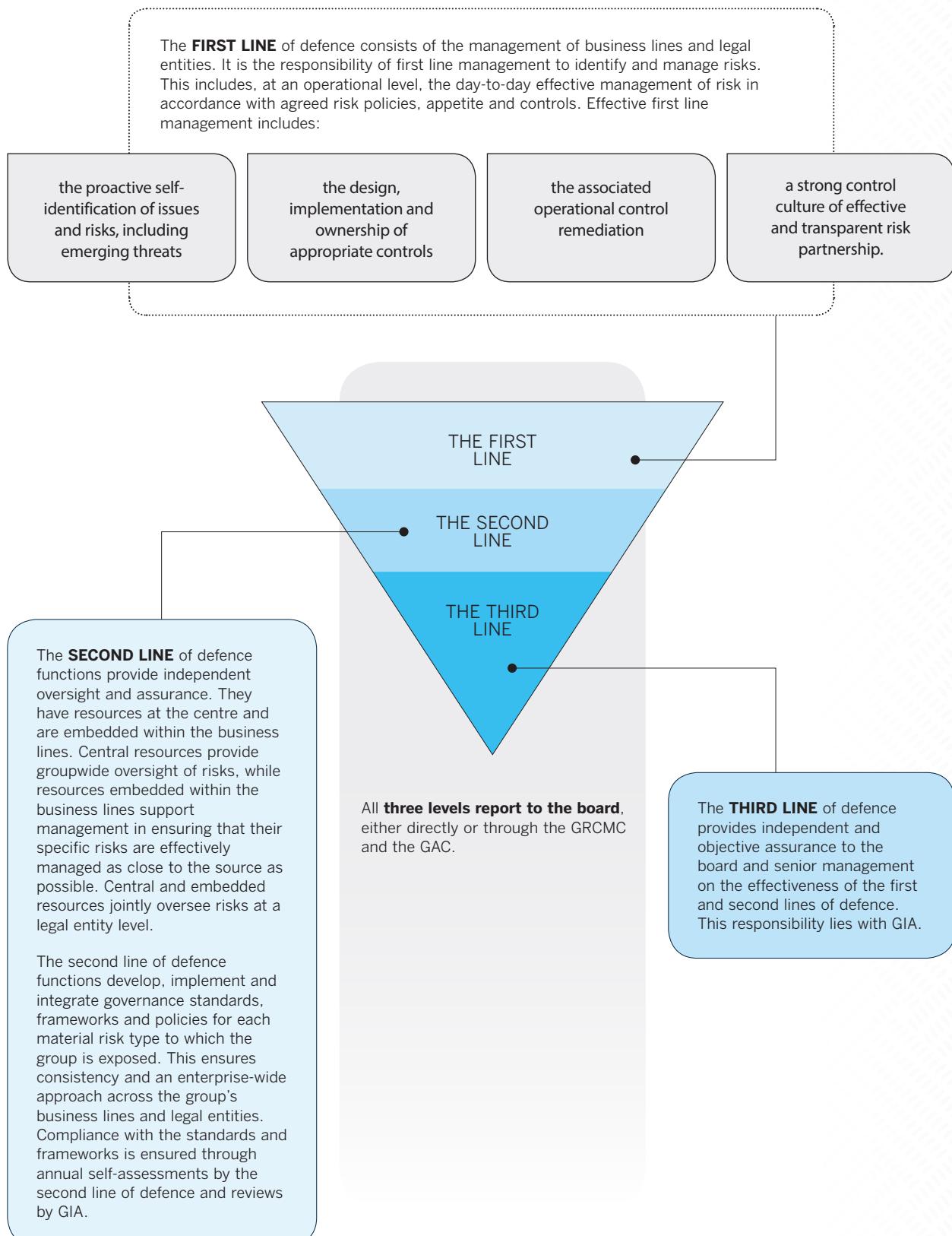
Chaired by: group CRO

Group recovery and resolution plan committee

Chaired by: group financial director



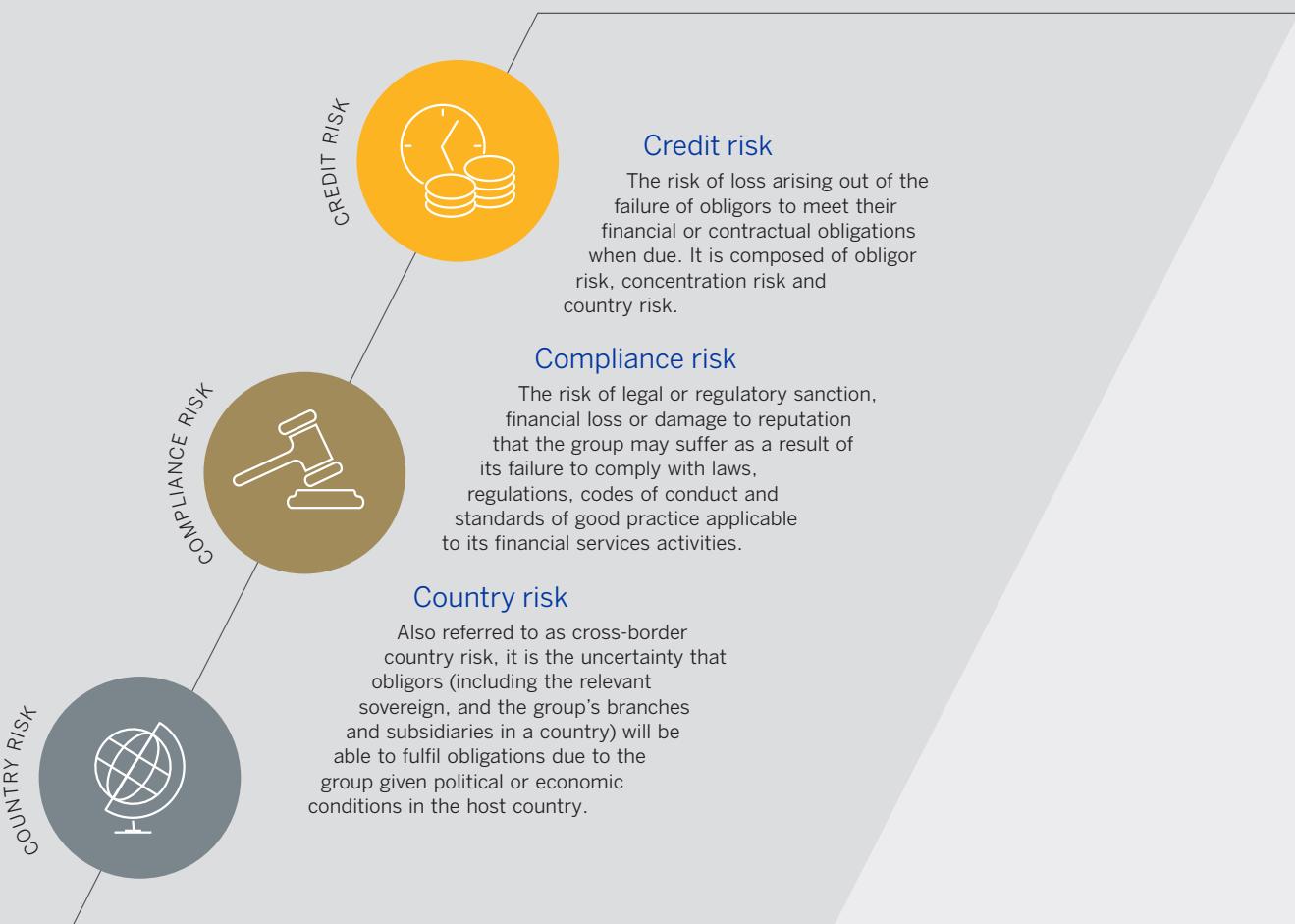
THREE LINES OF DEFENCE MODEL

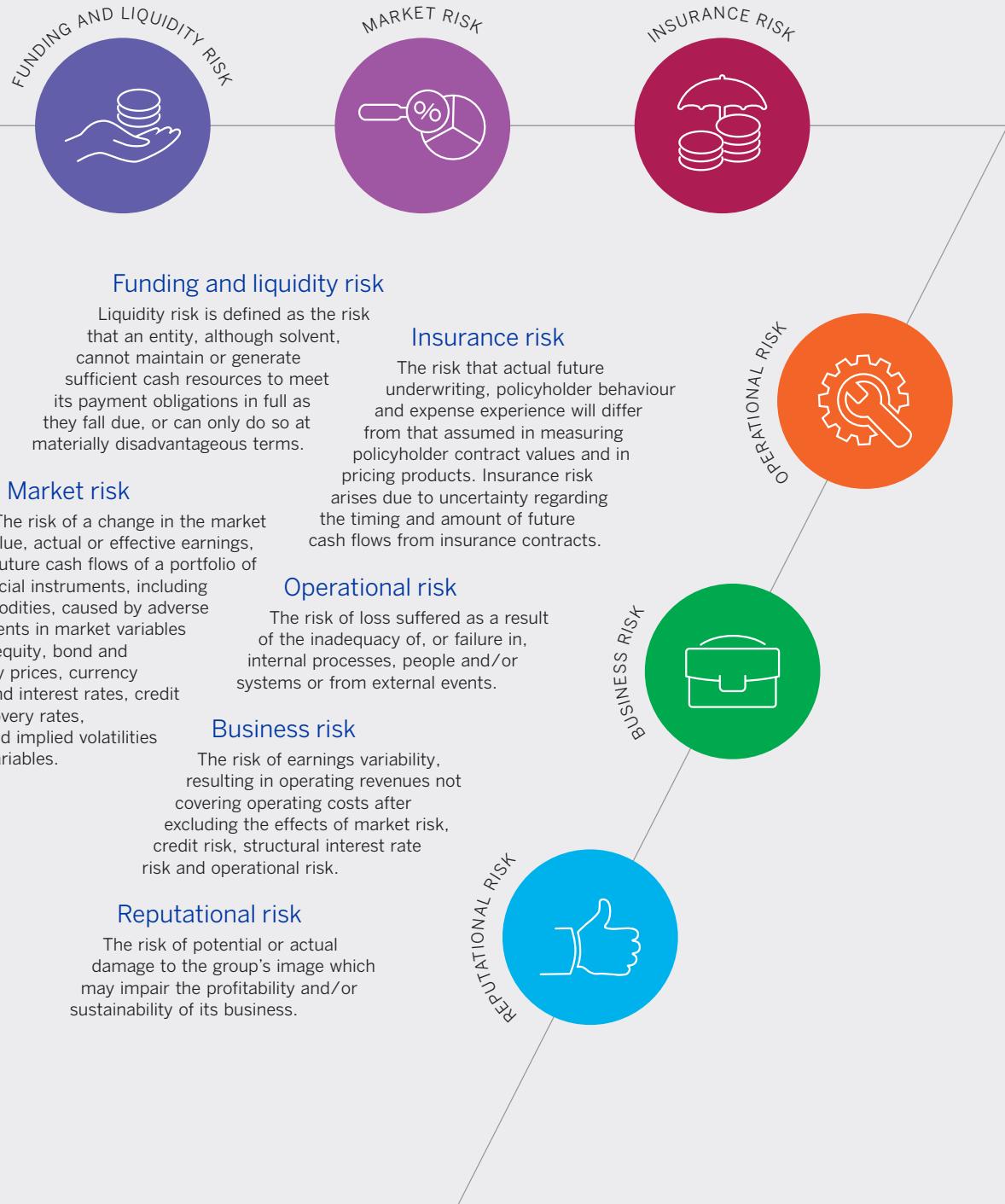


RISK TYPES

Each risk is defined below. The relevant risk sections include:

- an explanation of the application of the group's ERM governance framework to the specific risk
- the approved regulatory treatment for capital requirements to be held against the specific risk in terms of Basel
- a description of the relevant portfolio characteristics in terms of prescribed disclosure and the group's business model.





EMERGING ENTERPRISE THREATS

Karin Griffin
Group head of
operational risk
management



In the context of rapid technological change and external challenges, the group's ERM framework enables us to identify and manage emerging enterprise risks, ensuring our organisational resilience.

As the group increasingly embraces cloud computing, robotics, cognitive computing, data mining and application programming interfaces, we provide our customers with more flexible and convenient services, beyond traditional banking channels. At the same time, we constantly scan the environment to identify threats that could impact our strategy of digitisation, client centricity and integrated service offerings, so that we develop solutions to address such threats. Potential threats include cyber-security risks and data breaches, fake news, and the rapid rise and fall of crypto-currencies.

The proliferation of AI provides enormous opportunities to improve business efficiencies and customer service, but also raises the risks that such technologies will be harnessed for the purposes of cyber-crime. Quantum computing has the potential to crack encryptions, and attacks are expected on and from the cloud. Cyber and technology risks remain top risks for the group, and we are continually working to improve our resilience, protect information and ensure our services are 'always on and always secure'. We continue to improve our stability and resilience to cyber-attacks. We are also partnering with fintechs to ensure we are able to leverage technological developments for maximum benefit to our customers, our business and risk management disciplines.

Digitisation remains a core strategic objective for the group. This has significant implications for the skillsets we require. As noted by the World Economic Forum's (WEF) 2019 World Development Report, while single-skilled repetitive jobs will be ripe for automation, demand for other skills will increase. We continue to invest in our people to boost productivity and competitiveness, and to ensure that they are equipped for the future world of work.

Corruption tops the list of barriers to doing business in SA, according to the WEF. Within the group, our robust governance structures and compliance processes, together with our organisational values and code of ethics, enable appropriate risk management. We have clear mechanisms to report unethical behaviour.



For regulators, key focus areas include anti-money laundering and counter-terrorism financing, customer due diligence, data protection and privacy and cyber-resilience. We undertake ongoing engagements with our regulators, and work to provide constructive input during consultation processes associated with the development of new regulations. We have appropriate human capital and technological resources to ensure we keep up to date with regulatory changes.

SA is at risk of extended power disruptions which can have a detrimental impact on all aspects of life. A similar disruption is

playing out in Venezuela following the recent presidential elections. Business resilience is a key control to ensuring that the group is organisationally resilient in the face of this type of systemic risk.

Our risk management capability is regularly reviewed to ensure appropriate coverage of emerging risks. These issues are dealt with across the group, including at board level, and through our specialist risk teams.

Our top risks are



The operational and tactical management of these risks are discussed in the compliance and operational risk sections of this report.

RISK APPETITE AND STRESS TESTING

Overview

The key to the group's long-term sustainable growth and profitability lies in ensuring that there is a strong link between its risk appetite and its strategy.

Risk appetite is set, and stress testing activities are undertaken, at a group level, in business units, in risk types and at a legal entity level.

Governance

The primary management level governance committee overseeing risk appetite and stress testing is the group stress testing and risk appetite committee.

The principal governance documents are the risk appetite governance framework and the stress testing governance framework.

Risk appetite

Risk appetite governance framework

The risk appetite governance framework guides:

- the setting and cascading of risk appetite by group, business line, risk type and legal entity
- measurement and methodology
- governance
- monitoring and reporting of the risk profile
- escalation and resolution.

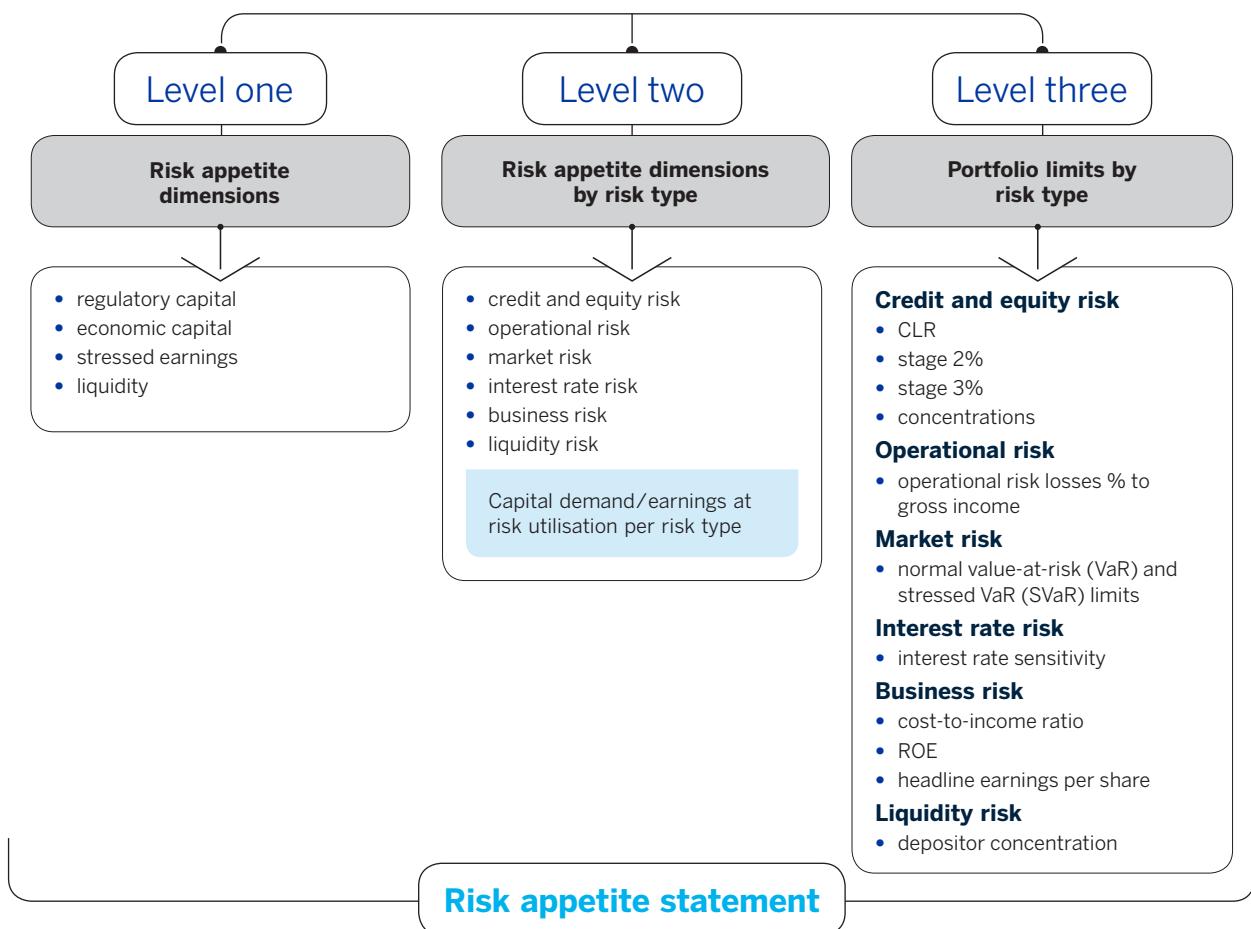
The group has adopted the following definitions, where entity refers to a business line or legal entity within the group, or the group itself:

- **risk appetite:** an expression of the amount or type of risk an entity is willing to take in pursuit of its financial and strategic objectives, reflecting its capacity to sustain losses and continue to meet its obligations as they fall due, under both normal and a range of stress conditions
- **risk appetite trigger:** an early warning trigger set at a level that accounts for the scope and nature of available management actions, and ensures that corrective management action can take effect and prevent a risk tolerance limit breach
- **risk tolerance:** the maximum amount of risk an entity is prepared to tolerate above risk appetite. The metric is referred to as a risk tolerance limit
- **risk capacity:** the maximum amount of risk the entity is able to support within its available financial resources
- **risk appetite statement:** the documented expression of risk appetite and risk tolerance which have been approved by the entity's relevant governance committee. The RAS is reviewed and revised, if necessary, on an annual basis
- **risk profile:** the risk profile is defined in terms of three dimensions:
 - current or forward risk profile
 - unstressed or stressed risk profile
 - pre- or post-management actions.

The following diagram provides a schematic view of the three levels of risk appetite and the integral role that risk types play in the process of cascading risk appetite from dimensions such as regulatory capital, economic capital, stressed earnings and liquidity to more granular portfolio limits.



RISK APPETITE



Risk appetite statements

Executive management is responsible for recommending the group's RAS, which is then approved by the GRCMC on behalf of the board. In developing the RAS, executive management considers the group's strategy and the desired balance between risk and return. The GRCMC reviews the group's current risk profile on a quarterly basis and forward risk profile (both stressed and unstressed) at least annually.

Level one risk appetite dimensions can be either quantitative or qualitative.

Quantitative level one risk appetite dimensions relate to available financial resources and earnings volatility. The standardised quantitative dimensions used by the group, as well as legal entities and business lines, are:

- stressed earnings
- economic capital
- regulatory capital
- liquidity.

The group's qualitative RAS, set out below, serves as a guide for embedding the risk appetite framework to guide strategic and operational decision-making across the group.

- **Capital position:** the group aims to have a strong capital adequacy position measured by regulatory and economic capital adequacy ratios. The group manages its capital levels to support business growth, maintain depositor and creditor confidence, create value for shareholders and ensure regulatory compliance. Each banking subsidiary must further comply with regulatory requirements in the countries in which they operate
- **Funding and liquidity management:** the group's approach to liquidity risk management is governed by prudence and is in accordance with the applicable laws and regulations and takes into account the competitive environment in which each banking subsidiary operates. Each banking subsidiary must manage liquidity risk on a self-sufficient basis
- **Earnings volatility:** the group aims to have sustainable and well-diversified earning streams in order to minimise earnings volatility through business cycles
- **Reputation:** the group has no appetite for compromising its legitimacy or for knowingly engaging in any business, activity or relationship which could result in foreseeable reputational risk or damage to the group
- **Conduct:** the group has no appetite for unfair customer outcomes arising from inappropriate judgement and conduct in the execution of business activities, or wilful breaches of regulatory requirements. The group strives to meet customers' expectations for efficient and fair engagements by doing the right business the right way, thereby upholding the trust of its stakeholders.

Level two risk appetite represents the allocation of level one risk appetite to risk types. Specifically, the contribution of individual risk types to earnings volatility and overall capital demand (both economic and regulatory) is controlled through triggers and limits.

Level three consists of key metrics used to monitor the portfolio. Portfolio triggers and limits are required to be broadly congruent with level one and level two triggers and limits. These metrics are regularly monitored at a risk type level and ensure proactive risk management.

Stress testing

Stress testing governance framework

Stress testing is a key management tool within the group and is used to evaluate the sensitivity of the current and forward risk profile relative to different levels of risk appetite. Stress testing supports a number of business processes, including:

- strategic and financial planning
- the internal capital adequacy assessment process (ICAAP), including capital planning and management, and the setting of capital buffers
- liquidity planning and management
- informing the setting of risk appetite
- identifying and proactively mitigating risks through actions such as reviewing and changing limits, limiting exposures, and hedging
- facilitating the development of risk mitigation or contingency plans, including recovery plans, across a range of stressed conditions
- supporting communication with internal and external stakeholders, including industry-wide stress tests performed by the regulator.

Stress testing within the group is subject to the group's stress testing governance framework which sets out the responsibilities for and approaches to stress testing activities. Broadly aligned and fit-for-purpose stress testing programmes are implemented for the group to ensure appropriate coverage of the different risks.

Stress testing programme

The group's stress testing programme uses one or a combination of stress testing techniques, including scenario analysis, sensitivity analysis and reverse stress testing to perform stress testing for different purposes.

Groupwide macroeconomic stress testing

Macroeconomic stress testing is conducted across all major risk types on an integrated basis for a range of economic scenarios varying in severity from mild to very severe but plausible macroeconomic shocks. The impact, after consideration of mitigating actions, on the group's income statement, balance sheet and the group's capital demand and supply is measured against the group's risk appetite.

Macroeconomic stress testing for the group and The Standard Bank of South Africa (SBSA) is performed, as a minimum, once a year for selected scenarios that are specifically designed by a scenario working group targeting the group's risk profile, geographical presence and strategy.

In 2018 these scenarios included, among others, an increase in global protectionism, a rapid global asset price decline and the unsettled social and political environment in SA. Results indicated that the group is well-capitalised and able to withstand the impact of these scenarios.

Group and SBSA macroeconomic stress testing results are presented at a board level in order to consider whether the group's risk profile is consistent with the group's risk appetite buffer. Groupwide macroeconomic stress testing results are submitted as part of the annual ICAAP.



Additional stress testing

Groupwide macroeconomic stress testing results are supplemented with additional ad hoc stress testing at the group, legal entity, business line, sector, or risk type level that may be required from time-to-time for risk management or planning purposes. The purpose of this stress testing is to inform management of risks that may not yet form part of routine stress testing or where the focus is on a specific portfolio or business unit. Additional stress testing can take the form of either scenario analysis or sensitivity analysis.

This type of stress testing will be performed and governed at the appropriate group, legal entity, business line, or risk type level.

Supervisory stress tests

From time-to-time, a regulator may call for the group or a legal entity to run a supervisory stress test or common scenario with prescribed assumptions and methodologies. The purpose of these stress test requests could be for the regulator to assess the financial stability of the entire financial sector, or targeted stress tests where the regulator may have a specific concern regarding a specific asset class or other potential stress event.

In 2018 the SA regulator conducted a supervisory stress test intended to assess the resilience of the SA banking sector to a selection of hypothetical, plausible but severe macroeconomic shocks. In line with this process, the group ran an integrated stress test on its SA banking operations, which were found to maintain their minimum required capital adequacy ratios above the average capital requirements under the considered shocks applied.

Business model stress testing

Business model stress testing utilises the reverse stress testing technique to explore vulnerabilities in a particular strategy or business model. The outcome does not necessarily target business or bank failure, but rather seeks to inform what could have a severe impact, given a plausible but in most cases highly improbable event within a given set of circumstances and assumptions.

Stress testing for the recovery plan

As part of the annual review of the group's recovery plan, the group's procedures require the execution of stress tests in order to test the effectiveness of the recovery options proposed in the recovery plan, and to provide guidance on the selection of early warning indicators. The range of scenarios that are considered include both systemic, group-specific and combination events, as well as fast- and slow-moving scenarios.

Risk type stress testing

Risk type stress tests apply to individual risk types. Risk type stress testing could take the form of scenario or sensitivity analysis.

RISK CULTURE

The group leverages the three lines of defence model to build and maintain a strong risk culture, where resilience is a priority for the effective management of risk across the group. Focus is placed on multiple drivers to enhance risk culture, with emphasis on doing the right business the right way. Employees are empowered to act with confidence, drive meaningful behavioural changes and place the customer at the centre of everything they do, through the embedding of the group's values and ethics policies, compliance training and whistle-blowing programmes.

REPORTING

The group's risk appetite, risk profile and risk exposures are reported on a regular basis to the board and senior management through various governance committees. Risk management reports originate in the business units and are then escalated through the formalised governance structure, shown on page 19, as mandated, based on materiality. A group risk management report is tabled at both board and senior management risk committees. These include the group executive committee, GROC and the GRCMC.

Reports to board committees comply with the group's internal risk reporting standards, which are set out in the group's risk data aggregation and risk reporting policy.

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 - 32 Banking operations
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Capital management



OVERVIEW AND OBJECTIVES

The group's capital management function is designed to ensure that regulatory requirements are met at all times and that the group and its principal subsidiaries are capitalised in line with the group's risk appetite and target ratios, both of which are approved by the board.

It further aims to facilitate the allocation and use of capital, such that it generates a return that appropriately compensates shareholders for the risks incurred. Capital adequacy is actively managed and forms a key component of the group's budget

and forecasting process. The capital plan is tested under a range of stress scenarios as part of the group's annual ICAAP and recovery plan.

The capital management function is governed primarily by management level subcommittees that oversee the risks associated with capital management, namely group ALCO and one of its subcommittees, the group capital management committee. The principal governance documents are the capital management governance framework and the model risk governance framework.

The table below provides an overview of a banking group's key prudential metrics.

KM1: KEY METRICS

	2018	3Q18	1H18	1Q18	2017
Available capital¹ (Rm)					
1	Common Equity Tier I (CET I)	134 241	123 092	125 772	119 893
1a	Fully loaded ECL accounting model CET I	129 215	118 824	120 750	114 870
2	Tier I	140 328	129 221	131 807	126 211
2a	Fully loaded ECL accounting model Tier I	135 303	124 953	126 785	121 188
3	Total capital	160 649	146 720	149 244	144 955
3a	Fully loaded ECL accounting model total capital	158 461	145 290	147 059	142 368
Risk-weighted assets (RWA) (Rm)					
4	Total RWA	1 079 642	1 012 644	986 352	947 157
Risk-based capital ratios as a percentage of RWA²					
5	CET I ratio (%)	12.4	12.2	12.8	12.7
5a	Fully loaded ECL accounting model CET I (%)	12.0	11.8	12.3	12.1
6	Tier I ratio (%)	13.0	12.8	13.4	13.3
6a	Fully loaded ECL accounting model Tier I ratio (%)	12.6	12.4	12.9	12.8
7	Total capital ratio (%)	14.9	14.5	15.1	15.3
7a	Fully loaded ECL accounting model total capital ratio (%)	14.7	14.4	14.9	15.0
Additional CET I buffer requirements as a percentage of RWA					
8	Capital conservation buffer requirement (2.5% from 2019) (%)	1.9	1.9	1.9	1.3
9	Countercyclical buffer requirement (%)	0.0273	0.0136	0.0005	0.0002
10	Bank domestic systemically important (D-SIB) additional requirements (%) ³				0.0005
11	Total of bank CET I specific buffer requirements (%) (row 8 + row 9 + row 10)	1.9	1.9	1.9	1.3
12	CET I available after meeting the bank's minimum capital requirements (%)	3.6	3.2	3.8	4.2
Basel III leverage ratio					
13	Total Basel III leverage ratio exposure measure (Rm)	1 870 458	1 803 261	1 743 754	1 690 832
14	Basel III leverage ratio (%) (row 2/row 13)	7.5	7.2	7.6	7.5
14a	Fully loaded ECL accounting model Basel III leverage ratio (%) (row 2a/row 13)	7.2	6.9	7.3	7.2
Liquidity coverage ratio					
15	Total high-quality liquid assets (HQLA) (Rm)	275 321	267 148	249 604	247 835
16	Total net cash outflow (Rm)	235 770	212 966	205 728	195 600
17	LCR ratio (%)	116.8	125.4	121.3	126.7
Net stable funding ratio⁴					
18	Total available stable funding (ASF) (Rm)	1 070 361	1 063 429	1 052 465	1 003 051
19	Total required stable funding (RSF) (Rm)	902 192	880 287	855 107	834 014
20	NSFR ratio (%)	118.6	120.8	123.1	120.3

¹ On 1 January 2018 the group adopted IFRS 9 – Financial Instruments. For more information on the IFRS 9 transition adjustment, refer to the group's IFRS 9 Transition Report which is available on the group's Investor Relations website. In terms of the SARB Directive 5/2017, the group elected the three-year transition period. All metrics are presented on the basis of applying this transition period with the exception of those metrics referred to as 'fully loaded'.

² Excludes unappropriated profit.

³ Bank specific confidential requirement.

⁴ Only effective 1 January 2018.

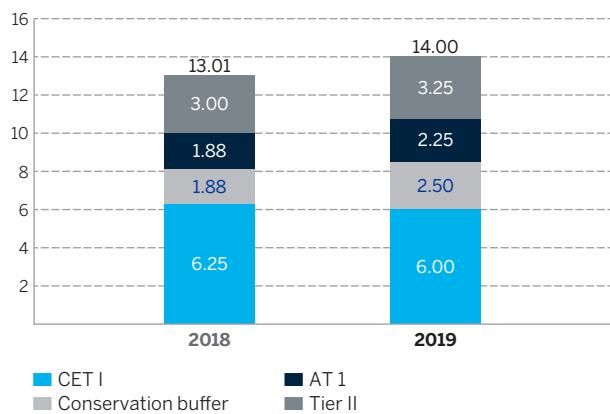
REGULATORY UPDATE

The SARB adopted the Basel III framework introduced by the BCBS from 1 January 2013. The group has complied with the minimum requirements from that date. The Basel III capital adequacy requirements are subject to phase-in rules with full implementation from 1 January 2019.

The graph below reflects the Basel III capital requirements and phase-in periods applicable to SA.

South African minimum capital requirements¹

SARB ratios (capital as a % of RWA) effective 1 January each year



¹ Graph excludes CCyB and confidential bank-specific pillar 2b capital requirement, but includes maximum potential D-SIB requirement which is also bank-specific and therefore, confidential.

Annexure A on page 102 provides a summary of the regulatory and legislative developments that impact the group. The impact of the IFRS 9 implementation on 1 January 2018 was a decrease in the CET I ratio of 70 bps as at the date of the initial application which represented the fully-loaded IFRS 9 transition impact. The impact on the group's CET I ratio after taking into account the Prudential Authority's three-year phase-in provision was a decrease of 18 bps. Given the group's strong capital adequacy position, the group was able to absorb the CET I capital impact.

IFRS 9 had a small impact on the group's total capital adequacy due to the add-back to Tier II capital that is permitted for provisions that exceed the regulatory expected loss (EL). The volatility that arises from the add-back due to the adoption of IFRS 9 is carefully monitored on an ongoing basis. The Basel III post-crisis reform proposals and the potential requirements for loss absorbing and recapitalisation capacity of systemically important banks may impact capital levels going forward. The implementation date of the more significant Basel III post-crisis reform proposals is 1 January 2022 with transitional arrangements for the phasing-in of an aggregate output floor from 1 January 2022 to 1 January 2027.

The Basel III post-crisis reform proposals provide for areas of national discretion and the group will, through relevant industry bodies, engage the Prudential Authority on the SA implementation of the proposals.

REGULATORY CAPITAL

The group manages its capital levels to support business growth, maintain depositor and creditor confidence, create value for shareholders and ensure regulatory compliance.

The main regulatory requirements to be complied with are those specified in the Banks Act and related regulations, which are aligned with Basel III.

Banking operations

Regulatory capital adequacy is measured through the following three risk-based ratios:

- **CET I:** ordinary share capital, share premium, retained earnings, other reserves and qualifying non-controlling interest less impairments divided by total RWA
- **Tier I:** CET I and other qualifying non-controlling interest plus perpetual, non-cumulative instruments with either contractual or statutory principal loss absorption features that comply with the Basel III rules divided by total RWA. Perpetual non-cumulative preference shares that comply with Basel I and Basel II rules are included in Tier I capital but are currently subject to regulatory phase-out requirements over a ten-year period, which commenced on 1 January 2013
- **total capital adequacy:** Tier I plus other items such as general credit impairments and subordinated debt with either contractual or statutory principal loss absorption features that comply with the Basel III rules divided by total RWA. Subordinated debt that complies with Basel I and Basel II rules is included in total capital but is currently subject to regulatory phase-out requirements, over a ten-year period, which commenced on 1 January 2013.

The ratios are measured against internal targets and regulatory minimum requirements.

The following graph discloses the group's total capital adequacy and the components thereof and indicates that the group's capital is well above the required level of capital.

Capital adequacy¹ (%)



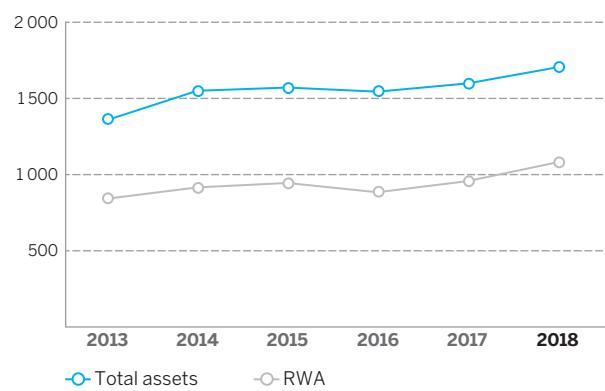
¹ Group, including Liberty.



RWA are calculated in terms of the Banks Act and related regulations, which are aligned with Basel III.

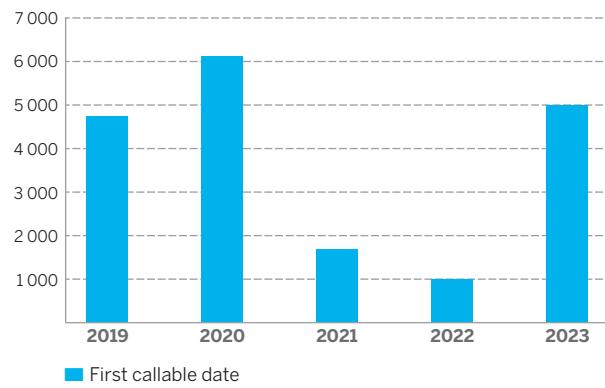
The group's CET I capital, including unappropriated profits, was R145.9 billion as at 31 December 2018 (2017: R129.6 billion). The group's Tier I capital, including unappropriated profits, was R152.0 billion as at 31 December 2018 (2017: R136.3 billion) and total capital, including unappropriated profits was R172.3 billion as at 31 December 2018 (2017: R153.2 billion).

RWA history¹ (Rbn)



¹ Banking activities and other banking interests.

Maturity profile of the group's qualifying Tier II instruments (Rm)



QUALIFYING CAPITAL, EXCLUDING UNAPPROPRIATED PROFITS (BANKING OPERATIONS)

	2018 Rm	2017 Rm
IFRS ordinary shareholders' equity		
Qualifying non-controlling interest	165 061	157 020
Less: regulatory adjustments	5 451	4 892
	(24 628)	(32 326)
Goodwill	(2 208)	(1 904)
Other intangible assets	(17 703)	(18 603)
Shortfall of credit provisions to expected future losses ¹	(8 616)	(2 076)
Investments in financial entities	3 899	(9 141)
Other adjustments including IFRS 9 phase-in		(602)
Less: regulatory exclusions	(11 643)	(11 304)
CET I capital		
Qualifying other equity instruments	134 241	118 282
Qualifying non-controlling interest	5 702	6 291
	385	416
Tier I capital		
Qualifying Tier II subordinated debt	140 328	124 989
General allowance for credit impairments	17 545	14 777
	2 776	2 173
Tier II capital		
	20 321	16 950
Total regulatory capital		
	160 649	141 939
Total capital requirement		
	120 405	102 884
Total RWA		
	1 079 642	957 046

¹ For reporting periods up to 31 December 2017, the group deducted from available capital the shortfall of IAS 39 credit provisions to regulatory expected loss. Given that the IFRS 9 impairment provisions are greater than the regulatory EL, this adjustment is no longer recognised.

OV1: BASEL RWA AND ASSOCIATED CAPITAL REQUIREMENTS (BANKING OPERATIONS)

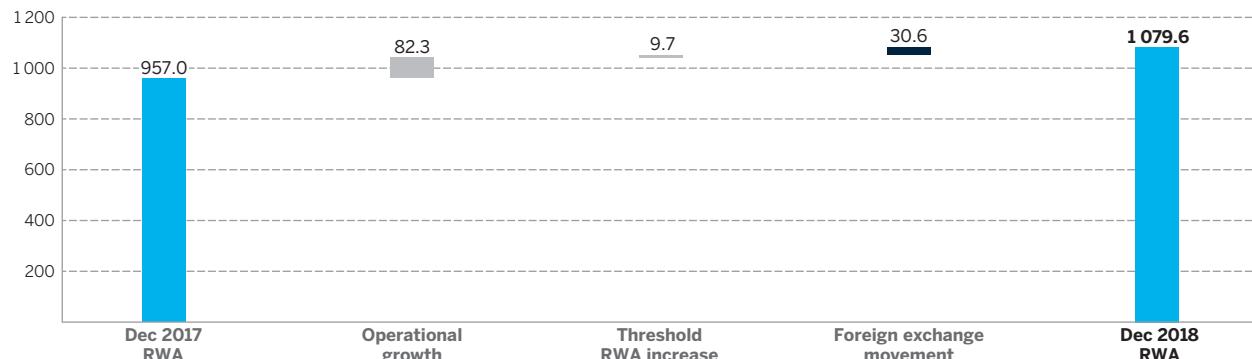
	RWA		Minimum capital requirements ¹
	2018	2017	2018
Credit risk (excluding counterparty credit risk (CCR))			
Of which: standardised approach ²	759 117	666 422	84 659
Of which: internal rating-based (IRB) approach	323 810	267 924	36 112
	435 307	398 498	48 547
CCR			
Of which: standardised approach for CCR	27 338	24 350	3 049
Of which: IRB approach	4 526	3 424	505
	22 812	20 926	2 544
Equity positions in banking book under market-based approach			
Securitisation exposures in banking book			
Of which: IRB approach	3 282	6 154	366
Of which: IRB supervisory formula approach	659	747	74
Market risk			
Of which: standardised approach	466	394	52
Of which: internal model approach (IMA)	193	353	22
	70 479	60 021	7 860
	56 645	47 217	6 317
	13 834	12 804	1 543
Operational risk			
Of which: standardised approach	168 380	158 670	18 778
Of which: advanced measurement approach (AMA)	97 427	91 818	10 865
	70 953	66 852	7 913
Amounts below the thresholds for deduction (subject to 250% risk-weight)	50 387	40 682	5 619
Total			
	1 079 642	957 046	120 405

¹ Measured at 11.1% (2017: 10.8%) in line with Basel III transitional requirements and excludes any bank-specific capital requirements. There is currently no requirement for the countercyclical buffer add-on in SA. The impact on the group's countercyclical buffer requirement from other jurisdictions in which the group operates is insignificant (buffer requirement of 0.0273%).

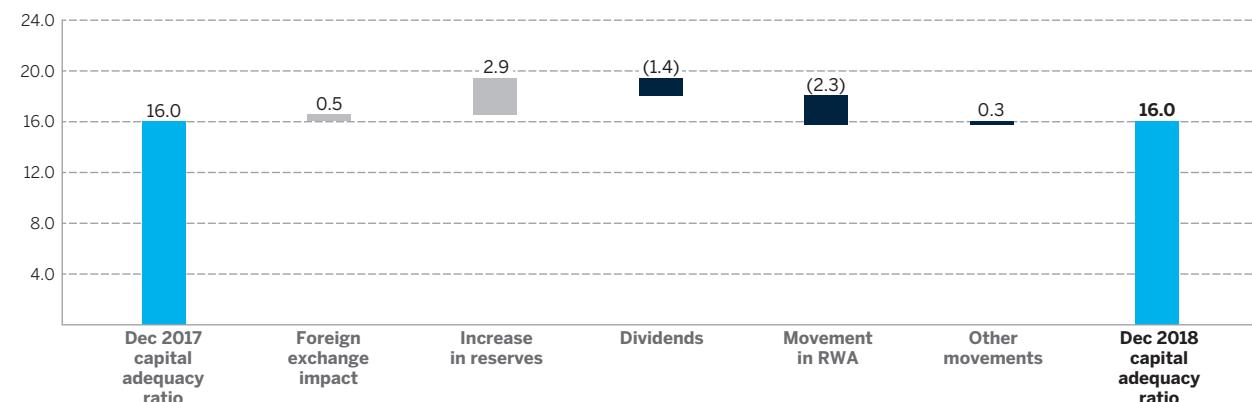
² Portfolios on the standardised approach relate to the Africa Regions and portfolios for which application to adopt the internal model approach has not been submitted, or for which an application has been submitted but approval has not been granted.



RWA reconciliation (Rbn) (Banking operations)



Total capital adequacy ratio movement (%) (Banking operations)



CAPITAL ADEQUACY RATIOS (PHASED-IN)^{1,2}

	2018 SARB minimum regulatory requirement ³ %	Internal target ratios ⁴ %	Including unappropriated profits		Excluding unappropriated profits	
			2018 %	2017 %	2018 %	2017 %
Total capital adequacy ratio	11.1	15.0 – 16.0	16.0	16.0	14.9	14.8
Tier I capital adequacy ratio	8.9	12.0 – 13.0	14.1	14.2	13.0	13.1
CET 1 capital adequacy ratio	7.4	11.0 – 12.5	13.5	13.5	12.4	12.4

¹ Capital adequacy ratios based on the SARB IFRS 9 phased-in approach.

² Group, Including Liberty.

³ Excludes confidential bank-specific add-ons.

⁴ Including unappropriated profit.

CAPITAL ADEQUACY RATIOS (FULLY LOADED)¹

	2018 SARB minimum regulatory requirement ³ %	Internal target ratios ² %	Including unappropriated profits		Excluding unappropriated profits	
			2018 %	2017 %	2018 %	2017 %
Total capital adequacy ratio	11.1	15.0 – 16.0	15.8	16.0	14.7	14.8
Tier I capital adequacy ratio	8.9	12.0 – 13.0	13.6	14.2	12.6	13.1
CET I capital adequacy ratio	7.4	11.0 – 12.5	13.1	13.5	12.0	12.4

¹ Capital ratios based on the inclusion of the full IFRS 9 transition impact.

² Including unappropriated profit.

³ Excluding confidential bank-specific requirements.

CAPITAL ADEQUACY RATIOS OF LEGAL ENTITIES¹

	Host tier I regulatory requirements %	Host total regulatory requirements %	2018		2017	
			Tier I capital %	Total capital %	Tier I capital %	Total capital %
Standard Bank Group²	8.9	11.1	14.1	16.0	14.2	16.0
The Standard Bank of South Africa Group²	8.9	11.1	13.3	15.7	14.2	16.6
Africa Regions						
Stanbic Bank Botswana	7.5	15.0	8.5	17.3	9.8	19.1
Stanbic Bank Ghana		10.0	17.8	20.5	20.0	23.4
Stanbic Bank Kenya	12.5	14.5	14.3	17.1	15.6	17.1
Stanbic Bank S.A. (Ivory Coast) ³		8.0	71.6	71.6	>100	>100
Stanbic Bank Tanzania	12.5	14.5	14.7	16.7	17.0	18.8
Stanbic Bank Uganda	10.0	12.0	16.1	18.7	17.8	20.7
Stanbic Bank Zambia	5.0	10.0	15.7	18.3	16.6	19.1
Stanbic Bank Zimbabwe	8.0	12.0	21.4	23.9	22.0	24.6
Stanbic IBTC Bank Nigeria		10.0	17.2	21.5	16.2	20.5
Standard Bank de Angola		10.0	27.3	32.4	28.5	33.3
Standard Bank Malawi	10.0	15.0	19.5	21.7	16.8	20.3
Standard Bank Mauritius	8.0	11.9	24.1	25.0	31.4	32.0
Standard Bank Mozambique		9.0	18.0	19.4	18.9	20.4
Standard Bank Namibia	7.0	10.0	10.4	12.7	10.9	13.8
Standard Bank RDC (DRC-Congo) ⁴	7.0	10.0	27.9	30.4	79.1	92.4
Standard Bank Swaziland	4.0	8.0	9.8	13.9	11.9	14.1
Standard Lesotho Bank	4.0	8.0	21.7	16.4	23.1	16.3
Standard Bank International						
Standard Bank Isle of Man	8.5	11.5	21.2	21.2	12.6	13.7
Standard Bank Jersey		11.0		20.5		14.1
Liberty Group Limited⁵					1.87	
Solvency capital requirement (SCR) coverage ratio						
Standard Insurance Limited⁵					1.95	
SCR coverage ratio						

¹ IFRS 9 transitional impact phased-in according to local regulatory requirements or elections for SBG, SBSA, Kenya, Zambia, Botswana and Tanzania.

² Represents 2018 SARB Basel III minimum capital requirements excluding confidential bank-specific add-ons.

³ Stanbic Bank S.A. (Ivory Coast) commenced operations in July 2017. Capital adequacy ratios are reflective of the start-up stage of the business.

⁴ 2017 capital adequacy ratios in anticipation of increased minimum requirements in 2018.

⁵ The above figures have been calculated in accordance with the Insurance Act, 2017 which came into effect on 1 July 2018.

The SARB has not activated a CCyB requirement for banks in SA, but the group is subject to CCyB requirements on exposures in other jurisdictions where these buffers apply from time-to-time. Directive 2 issued by the SARB in August 2018 allows for a threshold of 2% of total private sector credit exposure below which banks can apply the home jurisdiction CCyB requirement (currently 0% in SA) to foreign private sector credit exposures. Additionally, if the sum of all foreign private sector credit exposures that are less than 2% of total private sector credit exposure amounts to greater than 10% in aggregate then the three most significant exposures must be assigned their jurisdiction's CCyB and not the home jurisdiction CCyB.



The proportion of capital held for CCyB requirements in foreign geographies are shown in the table below.

CCYB1 – GEOGRAPHICAL DISTRIBUTION OF CREDIT EXPOSURES USED IN THE COUNTERCYCICAL BUFFER (BANKING OPERATIONS)

Geographical breakdown	Countercyclical capital buffer rate (%)	RWA used in the computation of the countercyclical capital buffer (Rm)	Bank-specific countercyclical capital buffer rate (%)	Countercyclical buffer amount (Rm)
Hong Kong	1.9	66		
Norway	2.0			
Sweden	2.0	108		
United Kingdom	1.0	18 833	0.0273	295

The SARB adopted the leverage framework that was issued by the BCBS in January 2014. The minimum leverage ratio has been set at 4% by the SARB.

The non-risk-based leverage measure is designed to complement the Basel III risk-based capital framework.

LR1: SUMMARY COMPARISON OF ACCOUNTING ASSETS VS. LEVERAGE RATIO EXPOSURE MEASURE (BANKING OPERATIONS)

	2018 Rm	2017 Rm
Total consolidated assets as per AFS	1 704 335	1 597 968
Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	11 557	10 605
Adjustment for fiduciary assets recognised on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure		
Adjustments for derivative financial instruments	9 388	(29 263)
Adjustment for securities financing transactions (SFT) (repos and similar secured lending)	360	794
Adjustment for off-balance sheet items (conversion to credit equivalent amounts of off-balance sheet exposures)	133 681	109 106
Other adjustments	11 137	(1 688)
Leverage ratio exposure	1 870 458	1 687 522

LR2: LEVERAGE RATIO COMMON DISCLOSURE TABLE (BANKING OPERATIONS)

	2018 Rm	2017 Rm
On-balance sheet exposures (excluding derivatives and SFT)		
On-balance sheet exposures (excluding derivatives and SFTs, but including collateral)	1 607 296	1 467 667
Less: asset amounts deducted in determining Basel III Tier I capital	1 631 924 (24 628)	1 499 991 (32 324)
Derivatives exposures	57 817	43 365
Replacement cost associated with all derivatives transactions (where applicable net of eligible cash variation margin and/or with bilateral netting)	10 000	11 449
Add-on amounts for potential future exposures (PFE) associated with all derivatives transactions	46 880	25 176
Less: deductions of receivables assets for cash variation margin provided in derivatives transactions	(6 570) (17 254) 24 761	(12 550) (3 426) 22 716
Less: exempted central counterparty (CCP) leg of client-cleared trade exposures	71 664	67 384
Adjusted effective notional amount of written credit derivatives	71 304 360	66 590 794
SFT exposures	133 681	109 106
Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions (netted amounts of cash payables and cash receivables of gross SFT assets)	354 709 (221 028)	310 944 (201 838)
CCR exposure for SFT assets	140 328	124 989
Agent transaction exposures	1 870 458	1 687 522
Other off-balance sheet exposures	7.5	7.4
Off-balance sheet exposure at gross notional amount	3.1	3.1
Less: adjustments for conversion to credit equivalent amounts	8.1	8.1
Capital and total exposures		
Tier I capital ¹	1 704 335	1 597 968
Total exposures	(48 429) (71 304)	(72 629) (66 590)
Leverage ratio	7.5	7.4
Basel III leverage ratio	3.1	3.1
Basel III leverage ratio (including unappropriated profits)	8.1	8.1

¹ Excludes unappropriated profits.

RECONCILIATION WITH ANNUAL FINANCIAL STATEMENTS

	2018 Rm	2017 Rm	
Total consolidated assets per AFS			LR1
Derivative assets as per the balance sheet	1 704 335	1 597 968	
Security financing transactions per the balance sheet	(48 429) (71 304)	(72 629) (66 590)	
Total consolidated assets per AFS (excluding derivative and SFT assets)	1 584 602	1 458 749	
Gross-up for cash management schemes	35 765	30 637	
Adjustment for share of consolidated insurance assets	11 557	10 605	
Total on-balance sheet items	1 631 924	1 499 991	LR2



Insurance operations

LIBERTY GROUP LIMITED SOLVENCY CAPITAL REQUIREMENTS

	2018
Available statutory capital (Rm)	32 586
SCR (Rm)	17 400
SCR coverage ratio	1.87

In terms of the Insurance Act 2017, which came into effect on 1 July 2018, the Prudential Authority prescribed updated methodology for SA insurers to use in calculating their available capital and SCR.

SIL regulatory capital adequacy

SIL's SCR coverage ratio as at 31 December 2018 was 1.95 which indicates that SIL is well-capitalised and is well above current risk appetite levels of 1.5.

ECONOMIC CAPITAL

Economic capital adequacy is the internal basis for measuring and reporting all quantifiable risks on a consistent risk-adjusted basis. The group assesses its economic capital adequacy by measuring its risk profile under both normal and stressed conditions.

The ICAAP considers the qualitative capital management processes within the group and includes the group's governance, risk management, capital management and financial planning standards and frameworks. Furthermore, the quantitative internal assessments of the group's business models are used to assess capital requirements to be held against all risks that the group is or may become exposed to, in order to meet current and future needs, as well as to assess the group's resilience under stressed conditions.

Banking operations

ECONOMIC CAPITAL BY RISK TYPE

	2018 Rm	2017 Rm
Credit risk	83 422	73 784
Equity risk	7 730	6 912
Market risk	1 035	1 269
Operational risk	14 163	13 133
Business risk	3 882	4 113
IRRBB	4 197	3 908
Economic capital requirement	114 429	103 119
Available financial resources	166 992	150 726
Economic capital coverage ratio (times)	1.46	1.46

The economic capital requirement of R114.4 billion as at 31 December 2018 (2017: R103.1 billion) is the internal assessment of the amount of capital that is required to support the group's economic risk profile. For statistically quantifiable potential losses arising from risk types, economic capital reflects the worst-case loss commensurate with a confidence level of 99.92%.

Available financial resources refer to capital supply as defined by the group for economic capital purposes and includes capital and reserve funds after adjusting for certain non-qualifying items.

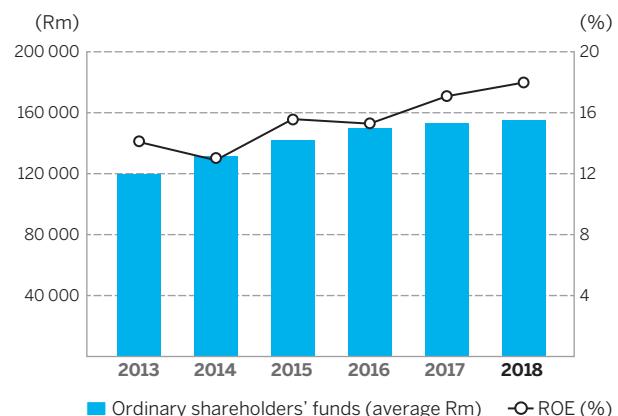
Insurance operations

As prescribed under the regulatory regime implemented on 1 July 2018, the assessment of capital will be on an economic basis for SA insurance entities. This applies to Liberty Group Limited and SIL. The regulatory capital is the amount of financial resources required to protect against economic insolvency under extreme events. The current assessments indicate that the regulatory capital requirements are well covered.

RISK-ADJUSTED PERFORMANCE MEASUREMENT

Risk-adjusted performance measurement (RAPM) maximises shareholder value by optimally managing financial resources within the board-approved risk appetite. Capital is centrally monitored and allocated, based on usage and performance in a manner that enhances overall group economic profit and ROE. Business units are held accountable for achieving their RAPM targets. RAPM is calculated on both regulatory and economic capital measures.

Return on ordinary equity



COST OF EQUITY

The group's rand-based cost of equity (COE) is estimated using the capital asset pricing model applying estimates of a risk-free rate at 8.9% (2017: 8.8%), equity risk premium of 6.3% (2017: 6.4%) and a beta factor of 80.0% (2017: 79.2%). The beta factor for banking activities is estimated at 81.2% (2017: 80.8%). The group's average COE as at 31 December 2018 is 14.0% (2017: 13.9%).

Linkages

41 OVERVIEW

41 Linkages between financial statements
and regulatory exposures





OVERVIEW

Table LI1 highlights the difference between the accounting and regulatory scopes of consolidation and also provides a mapping of the in-scope portion of the IFRS financial statements to the Basel III regulatory risk categories.

Linkages between financial statements and regulatory exposures

LI1: DIFFERENCES BETWEEN ACCOUNTING AND REGULATORY SCOPE OF CONSOLIDATION¹

	Carrying value as reported in the AFS ² (a) Rm	Carrying values under scope of regulatory consolidation (b) Rm	Carrying values subject to the:				Not subject to capital requirements or subject to deduction from capital Rm
			Credit risk framework Rm	CCR framework Rm	Securitisation framework Rm	Market risk framework Rm	
Assets							
Cash and balances with central banks	85 145	85 145	85 145				
Derivative assets	51 678	48 429		48 429		48 429	
Trading assets	181 112	178 327		41 334			178 327
Pledged assets	19 879	7 218		7 218			
Financial investments	547 405	203 891	197 216	6 107		568	
Current tax assets	601	599	599				
Disposal group assets held for sale	762						
Loans and advances	1 120 668	1 121 432	1 076 942	44 490			
Policyholders' assets	6 708						
Other assets	22 514	12 956	12 956				
Interest in associates and joint ventures	10 376	22 759	14 143				8 616
Investment property	33 326						
Property and equipment	19 194	15 999	15 999				
Goodwill and other intangible assets	23 676	23 006					23 006
Deferred tax assets	3 918	3 672	3 429				243
Total assets	2 126 962	1 723 433	1 406 429	147 578	568	226 756	31 865
	CC2	CC2	LI2	LI2	LI2	LI2	
Liabilities							
Derivative liabilities	55 057	49 586		49 586		49 586	
Trading liabilities	59 947	61 267				61 267	
Current tax liabilities	5 188	4 836					4 836
Deposits and debt funding	1 357 537	1 374 698					1 374 698
Policyholders' liabilities	310 994						
Subordinated debt	26 359	20 819					20 819
Disposal group liabilities held for sale	237						
Provisions and other liabilities	109 753	32 519					32 519
Deferred tax liabilities	2 827	131					131
Total liabilities	1 927 899	1 543 856		49 586		110 853	1 433 003
	CC2	CC2		LI2		LI2	

¹ The most significant differences between columns (a) and (b) of the table are as a result of the exclusion of Liberty, the group's insurance operations, from the regulatory scope of consolidation.

² Including Liberty.

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

Table LI2 provides a reconciliation of the in-scope carrying values as included in the IFRS financial statements to the exposure amounts used for regulatory purposes.

	Total Rm	Subject to the:				
		Credit risk framework Rm	CCR framework Rm	Securitisation framework Rm	Market risk framework Rm	
Asset carrying values amount under scope of regulatory consolidation	1 691 568	1 406 429	147 578	568	226 756	LI1
Liabilities carrying value amount under scope of regulatory consolidation	(110 853)		(49 586)		(110 853)	LI1
Total net amount under regulatory scope of consolidation	1 580 715	1 406 429	97 992	568	115 903	
Off-balance sheet amounts ¹	368 377	161 214	19 231	3 604		
Differences in valuations						
Differences due to netting (including PFE) ²	(23 143)		(23 143)			
Differences due to the impact of collateral ³	(120 063)	(8 851)	(111 212)			
Differences due to PFE ⁴	58 459		58 476			
Differences due to considerations of provisions ⁵	30 118	30 118				
Exposure amounts considered for regulatory purposes	1 894 463	1 588 910	41 344	4 172	115 903	
Amounts included as follows:						
Standardised approach	437 825	CR4, CR5	6 370	CCR3		
IRB approach	1 150 311	CR6	34 974	CCR4,CCR3		
Equity risk	774	CR10				
Total	1 588 910		41 344			

¹ The off-balance sheet regulatory exposures differ to that reported in the financial statements, since the regulatory exposures include revocable facilities and are subject to credit conversion factors (CCF) in determining the regulatory exposures.

² Regulatory netting is not equivalent to offset as applied in the financial statements, since regulatory netting includes netting agreements not meeting the IFRS netting requirements.

³ CCR exposures relating to resale and repurchase agreements as considered for regulatory purposes is presented after taking into account underlying collateral values. The IFRS balance sheet represents the underlying financing amount, excluding any underlying collateral.

⁴ CCR exposure considered for regulatory purposes includes an add-on for PFE not included as part of the IFRS balance sheet.

⁵ Specific and general debt provisions are excluded from the exposure considered for regulatory purposes, subject to the credit risk framework, whereas these form part of the amount reported on the face of the IFRS balance sheet.

Credit risk



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BANKING OPERATIONS

Approach to managing and measuring credit risk

The group's credit risk is a function of its business model and arises from wholesale and retail loans and advances, underwriting and guarantee commitments, as well as from the CCR arising from derivative and securities financing contracts entered into with customers and trading counterparties. To the extent that equity risk is held on the banking book, it is also managed under the credit risk governance framework, except in so far as approval authority rests with the ERC.

The management of credit risk is aligned to the group's three lines of defence framework.

Credit risk is managed through:

- maintaining a culture of responsible lending and a robust risk policy and control framework
- identifying, assessing and measuring credit risk across the group, from an individual facility level through to an aggregate portfolio level
- defining, implementing and continually re-evaluating risk appetite under actual and stressed conditions
- monitoring the group's credit risk exposure relative to approved limits
- ensuring that there is expert scrutiny and approval of credit risk and its mitigation independently of the business functions.

A credit portfolio limit framework has been defined to monitor and control the credit risk profile within the group's approved risk appetite. All primary lending credit limits are set and exposures measured on the basis of risk-weighting in order to best estimate exposure at default (EAD).

Pre-settlement CCR inherent in trading book exposures is measured on a PFE basis, modelled at a defined level of confidence using approved methodologies and models, and controlled within explicit approved limits for the counterparties concerned.

Governance

Credit risk is governed in accordance with the group credit risk governance standard and the model risk governance framework.

The group credit risk governance standard establishes and defines the principles under which the group is prepared to assume credit risk and the overall framework for the consistent and unified governance, identification, measurement, management and reporting of credit risk in the group. The standard is supported by underlying policies and procedures within the business units.

The group's credit governance process relies on both individual responsibility and collective oversight, supported by comprehensive and independent reporting. This approach balances strong corporate oversight at a group level, with participation by the senior executives of the group and its business units in all significant risk matters.

Credit risk is managed through the CIB and PBB credit governance committees, the group ERC (all subcommittees of GROC) and the intragroup exposure committee (a subcommittee of group ALCO). These governance committees are key components of the credit risk management framework. They have clearly defined mandates and delegated authorities, which are reviewed regularly. Their mandates include responsibility for credit concentration risk decision-making and delegation thereof to credit officers and subcommittees within defined parameters.

Key aspects of rating systems and credit risk models are approved by the PBB, CIB and group model approval committees, all of which are mandated by the board as designated committees. Regular model validation and reporting to these committees is undertaken by the independent central validation function.



Credit portfolio analysis

The credit quality of the group's on- and off-balance sheet assets is reflected in table CR1 below, through the disclosure of the gross carrying values of both defaulted and non-defaulted exposures, as well as the net exposures after impairments and allowances. Table CR2 presents the movement in the balance of defaulted exposures for the reporting period, including loans and debt securities that have defaulted since the last reporting period, those that have returned to default status and the amounts that have been written off.

CR1: CREDIT QUALITY OF ASSETS (BANKING OPERATIONS)

	Gross carrying values of				
	Defaulted exposures (a) Rm	Non-defaulted exposures (b) Rm	Total exposure Rm	Allowances/ impairments (c) Rm	Net values (a+b-c) Rm
2018					
Loans ¹	41 122	1 106 311	1 147 433	30 118	1 117 315
Debt securities and other investments	738	206 226	206 964		206 964
On-balance sheet exposures	41 860	1 312 537	1 354 397	30 118	1 324 279
Off-balance sheet exposures	1 070	340 361	341 431		341 431
Total	42 930	1 652 898	1 695 828	30 118	1 665 710
CR2					
AFS ²					
2017					
Loans ¹	34 938	1 078 545	1 113 483	22 366	1 091 117
Debt securities and other investments	78	140 921	140 999	78	140 921
On-balance sheet exposures	35 016	1 219 466	1 254 482	22 444	1 232 038
Off-balance sheet exposures	1 546	299 857	301 403		301 403
Total	36 562	1 519 323	1 555 885	22 444	1 533 441
CR2					
AFS					

¹ Included in loans are placements with central banks outside of SA. Placements under resale agreement are included within the CCR framework and excluded from credit risk.

² Credit impairment charges for 2018 exclude interest in suspense.

CR2: CHANGES IN STOCK OF DEFAULTED LOANS AND DEBT SECURITIES (BANKING OPERATIONS)

	2018 Rm	2017 Rm
Defaulted loans and debt securities at beginning of period		
Loans and debt securities that have defaulted since the last reporting period	36 562	34 857
Returned to non-defaulted status	25 135	24 036
Amounts written off ¹	(11 156)	(12 491)
Other changes	(8 179)	(7 794)
Defaulted loans and debt securities at end of period	42 930	36 562
CR1		

¹ As reported in the AFS.

Approved regulatory capital approaches

The group has approval from the SARB to adopt the AIRB approach for most credit portfolios in SBSA. The group has adopted the standardised approach for its Africa Regions portfolios and for some of its less material subsidiaries and portfolios. The group has approval from the SARB to adopt either the market-based or the probability of default (PD)/loss given default (LGD) approaches for material equity portfolios, with the latter applied to equity held on the banking book.

Standardised approach

The calculation of regulatory capital is based on a risk-weighting and the net counterparty exposures after recognising a limited set of qualifying collateral. The risk-weighting is based on the exposure characteristics and, in the case of corporate, bank and sovereign exposures, the external agency credit rating of the counterparty.

For bank and certain corporate asset class credit exposures on the standardised approach the group makes use of the ratings of two regulatory-approved external credit assessment institutions, Fitch and Moody's.

With respect to mainly sovereign credit exposures subject to the standardised approach (particularly in the Africa Regions) reference is also made to the export credit ratings issued by the Organisation for Economic Co-operation and Development (OECD). The group applies issuer ratings to calculate risk-weights and will only apply an issuer-specific rating in the event that it invests in a particular issue that has an issue-specific assessment.

Regulatory capital for the credit risk arising on the owner-occupied sub-portfolio of the commercial property finance portfolio in SA was calculated on the standardised approach.

The credit rating scale on page 50 is used for the alignment with the group's master rating scale. In the case of obligors for which there are no credit ratings available, exposures are classified as unrated for determining regulatory capital requirements.

The table that follows presents the breakdown of credit risk exposures under the standardised approach by Basel asset class and risk-weight. The total credit exposure amount represents on- and off-balance sheet amounts before application of credit risk mitigation (CRM) and CCF. The capital requirements calculation is based on the amounts after also considering write-offs and allowances.

CR5: STANDARDISED APPROACH – EXPOSURE BY ASSET CLASSES AND RISK-WEIGHTS (BANKING OPERATIONS)

	Risk-weights									Total credit exposures amount (post-CCF and post-CRM)
	0%	10%	20%	35%	50%	75%	100%	150%		
2018										
Asset classes										
Corporates				6 997						67 200
SME corporates					79					55 363
Public sector entities					396					3 746
Local governments and municipalities					23					123
Sovereign	37 479		2 203		1 915					141 196
Banks			1 423		29 053					30 476
Securities firms				3						3
Retail mortgage advances				13 688	237	4 012	2 177			20 114
Retail revolving credit					5	4 069	12			4 092
SME retail					50	9 017	4 079			13 373
Other retail					187	20 733	532			21 523
Securitisation and re-securitisation exposure										
Other assets	50 053		863				29 700			80 616
Total	87 532	4 492	20 685	31 945	37 833	236 428	18 910			437 825
									CR4/LI2	
2017										
Asset classes										
Corporates				5 264	102		42 396	2 355		50 117
SME corporates					244		37 955	2 039		40 238
Public sector entities					1 272		2 393	530		4 195
Local governments and municipalities					72		4			76
Sovereign	39 601		1 477		2 257		77 534	9 954		130 823
Banks			3 218		14 819					18 037
Securities firms				4	1					5
Retail mortgage advances				7 693	192	8 787	986			17 658
Retail revolving credit					9	3 862	38			3 910
SME retail					107	7 084	4 000			11 348
Other retail					225	15 946	301			16 476
Securitisation and re-securitisation exposure										
Other assets	43 157		1 321				25 758			70 236
Total	82 758	6 020	12 957	19 300	35 679	191 365	15 040			363 119
									CR4	



Internal ratings-based approach

Under the IRB regulatory capital approaches, the calculation of regulatory capital is based on an estimate of EAD and a risk-weighting. The risk-weighting is based on asset class, and estimates of PD, LGD, and maturity. Under the AIRB approach all the parameters need to be estimated internally, while only PD is estimated internally under the foundation IRB (FIRB) approach. EAD, LGD and maturity are regulatory-prescribed under the FIRB approach.

Model development is governed by a group model risk governance framework, which applies to all models used in the assessment of credit risk, including but not limited to models used for the IRB approaches. Credit risk model development is conducted within the independent risk function, while validation is independently undertaken by a quantitative analytics function.

All IRB models are managed under model development and validation policies that set out the requirements for model governance structures and processes, and the technical framework within which model performance and appropriateness is maintained. The models are developed using internal historical default and recovery data. In low-default portfolios, internal data is supplemented with external benchmarks and studies. Models are subjected to validation to demonstrate the reliability of the model's output.

Model validation takes place when a model is first designed and annually thereafter, when there are material changes to the model or when rating systems are replaced or enhanced. Models are thus assessed frequently to ensure ongoing appropriateness as business environments and strategic objectives change and are recalibrated annually using the most recent internal data. Any changes to models or to model outputs are controlled through access rights and are subject to approval at the relevant business unit or group governance committee.

Ongoing overall SA supervisory approval of the approach taken by the group to model its exposure to credit risk on the IRB approach, as well as for all credit risk models used for regulatory capital purposes, is obtained primarily by way of an annual self-assessment. The assessment addresses all aspects of model design, the rating structure and criteria for ratings, the assessment horizon, integrity of the rating process, governance around rating overrides, maintenance of data, stress tests for capital adequacy, integrity of estimates used and validation of the models.

The technical aspects of model usage, development, monitoring and validation are reviewed by a technical committee. The outcomes of model technical discussions are reported to the relevant model approval committee.

GIA is responsible, within its regular audits, for expressing an opinion on the extent of compliance with the model risk governance framework and for reviewing model inputs.

Table CR6 provides information on the main parameters used for the calculation of capital requirements for exposures under the IRB approach. Note the following:

- the original on-balance sheet gross exposure is gross of accounting provisions and does not include the effect of CRM techniques
- the off-balance sheet exposure pre-CCF is the exposure value without considering accounting provisions, CCF and the effect of CRM techniques
- average CCF is the EAD post-conversion factor for off-balance sheet exposure to total off-balance sheet exposure pre-CCF
- average PD and LGD are weighted by EAD
- average maturity is provided only for those asset classes where it is used for the RWA calculation and is weighted by EAD
- RWA density is total RWA to EAD post-CRM and post-CCF.

CR6: IRB – CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE (BANKING OPERATIONS)
TOTAL (ALL PORTFOLIOS)¹

PD scale	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	156 767	39 628	51.95	179 417	0.05
0.15 to 0.25	59 829	57 907	54.36	93 108	0.21
0.25 to 0.50	199 726	61 632	49.39	232 192	0.40
0.50 to 0.75	117 283	29 077	43.96	130 645	0.63
0.75 to 2.50	286 342	51 004	46.19	309 855	1.32
2.50 to 10.00	124 211	11 013	53.25	130 177	4.37
10.00 to 100.00	39 770	1 210	58.06	41 438	26.14
100.00 (default)	32 980	1 070	46.66	33 479	100.00
Total	1 016 908	252 541	49.59	1 150 311	4.88
L12					
2017					
0.00 to 0.15	144 735	44 998	59.81	174 055	0.05
0.15 to 0.25	57 074	36 725	55.35	78 755	0.21
0.25 to 0.50	173 138	71 144	46.10	207 518	0.39
0.50 to 0.75	127 043	28 950	44.66	140 580	0.63
0.75 to 2.50	280 249	39 042	50.81	300 079	1.38
2.50 to 10.00	122 356	10 993	56.87	128 391	4.32
10.00 to 100.00	39 952	2 357	49.08	41 869	25.81
100.00 (default)	28 478	1 546	45.52	29 182	100.00
Total	973 025	235 755	50.69	1 100 429	4.69
L12					

¹ Represents the number of unique obligors. The total number of unique obligors will not equal the sum of the obligors in the underlying asset classes since an obligor may be present in more than one asset class.



Number of obligors ¹	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
137 299	33.64	1.7	21 249	11.84	30	
242 992	22.40	1.9	15 534	16.68	43	
231 650	23.60	2.1	68 521	29.51	219	
259 812	21.75	2.2	40 135	30.72	178	
1 560 479	27.67	2.3	134 882	43.53	1 181	
1 853 233	36.16	2.2	86 617	66.54	2 088	
703 077	32.49	1.5	46 122	111.30	3 494	
294 499	35.30	2.4	22 247	66.45	14 673	
5 283 041	28.04	2.0	435 307	37.84	21 906	24 305
OV1/CR7						
190 530	32.79	1.3	17 849	10.25	30	
194 981	19.04	2.0	10 490	13.32	31	
378 235	24.92	2.0	62 741	30.23	206	
348 014	20.60	2.1	38 568	27.43	184	
1 400 225	27.62	2.4	132 610	44.19	1 175	
1 883 537	35.08	2.2	86 613	67.46	1 973	
727 278	31.48	1.8	46 387	110.79	3 349	
276 355	34.24	2.1	3 240	11.10	12 875	
5 399 155	27.61	1.9	398 498	36.21	19 823	17 701
OV1/CR7						

IRB risk components

Probability of default

PD is calculated using actual historical default rates, and in the case of retail exposures calibrated to a specific behaviour scorecard using a monotonic calibration technique that ensures a clear ranking of risk by mapping higher scores to lower PDs and vice versa. The estimates are adjusted to the long-run average default rate (through-the-cycle) to cater for potential downturn economic conditions.

The group uses a 25-point master rating scale to quantify the credit risk for each borrower (corporate asset classes) or facility (specialised lending and retail asset classes), as illustrated in the table below. Ratings are mapped to PDs by means of

Group master rating scale	GRADING	CREDIT QUALITY	MOODY'S INVESTORS SERVICES	STANDARD & POOR'S	FITCH ¹
1 – 4			Aaa, Aa1, Aa2, Aa3	AAA, AA+, AA, AA-	AAA, AA+, AA, AA-
5 – 7	Investment grade		A1, A2, A3	A+, A, A-	A+, A, A-
8 – 12		Normal monitoring	Baa1, Baa2, Baa3	BBB+, BBB, BBB-	BBB+, BBB, BBB-
13 – 20	Sub-investment grade		Ba1, Ba2, Ba3, B1, B2, B3	BB+, BB, BB-, B+, B, B-	BB+, BB, BB-, B+, B, B-
21 – 25		Close monitoring	Caa1, Caa2, Caa3	CCC+, CCC, CCC-	CCC+, CCC, CCC-
Default	Default	Default	C	D	D

¹ During 2015, Fitch withdrew the FSB registration of their SA subsidiary. Their grades are retained in this table to cater for exposures that still reference Fitch.

Loss given default

The LGD is the amount of a counterparty's obligation to the group that is not expected to be recovered after default and is expressed as a percentage of the EAD. LGD measures are a function of customer type, product type, seniority of loan, country of risk and level of collateralisation.

LGD is calculated using the workout method (discounted cash flows). Forecasting is performed for accounts that are still in default at the end of the outcome period. LGDs are estimated based on historical recovery data per category of LGD. A downturn LGD is used in the estimation of the capital charge and reflects the anticipated recovery rates in a downturn period.

Exposure at default

EAD captures the potential impact of changes in exposure values, for example:

- potential drawdowns against unutilised facilities
- missed payments
- repayments of capital
- potential changes in CCR positions due to changes in market prices.

By using historical data, it is possible to estimate an account's average utilisation of limits, recognising that the exposure value at point of default may differ to that at the balance sheet date given the aforementioned reasons.

calibration formulae that use historical default rates and other data from the applicable portfolio.

The group distinguishes between through-the-cycle PDs and point-in-time PDs, and utilises both measures in decision-making, managing credit risk exposures and measuring impairments against credit exposures.

The table below describes the internally defined relationship between the group master rating scale, generally accepted defined investment grades, the group's credit quality definitions and external rating scales.

Expected loss

The IRB EL provides a measure of the value of the through-the-cycle credit losses that may reasonably be expected to occur over a 12-month period in the portfolio.

To the extent that IFRS provisions may be insufficient to cover the EL in the credit portfolio, the difference is deducted from qualifying capital (referred to as 'shortfall of credit provisions to EL in the group's qualifying capital reconciliation'). In its most basic form the EL can be calculated as the product of PD, EAD and LGD.

Credit conversion factors

The group applies a regulatory-approved CCF to convert undrawn limits and other non-derivative off-balance sheet exposures to an equivalent EAD. The CCF is used to estimate the EAD for non-defaulted accounts. A downturn adjustment is made to cater for potential downturn economic conditions.

Use of internal estimates

The group's credit risk rating systems and processes differentiate and quantify credit risk across counterparties and asset classes. Internal risk parameters are used extensively in risk management and business processes, including:

- setting risk appetite
- setting concentration and counterparty limits
- credit approval and monitoring
- pricing transactions
- determining portfolio impairment provisions
- calculating economic capital.



Key portfolio models

The group makes use of the following key models for its credit risk regulatory capital purposes:

- credit rating models for corporate exposures, with distinctions made between SA, Africa Regions, small and medium enterprises (SME) and Standard Bank International
- for the CIB portfolio, distinct credit rating models are used for exposures to banks, sovereigns, local government, brokers, hedge funds, pension funds, asset managers, long- and short-term insurers, property finance (both developer and investor cash flow) and project finance respectively
- in the retail and personal lending segments, behavioural scorecard models are used for the retail cheque portfolio, retail SME, card, personal loans, home loans, retail and corporate SMEs, vehicle and asset finance, Blue Banner securitisation vehicle RC1 Proprietary Limited, pension-backed lending, Diners Club S.A. card and access loans.

PD, EAD and LGD modelling is integral to all of the models and portfolios detailed above.

Portfolios

Corporate, sovereign and bank portfolios

Corporate entities include large companies, as well as SMEs that are managed on a relationship basis or have a combined exposure to the group of more than R12 million. Corporate exposures also include specialised lending (project, object and commodity finance, as well as income-producing real estate (IPRE)), public sector entities and derivative trading counterparties.

Sovereign and bank borrowers include sovereign government entities, central banks, local and provincial government entities, bank and non-bank financial institutions.

The creditworthiness of corporate (excluding specialised lending), sovereign and bank exposures is assessed based on a detailed individual assessment of the financial strength of the borrower. This quantitative analysis, together with expert judgement and external rating agency ratings, leads to an assignment of an internal rating to the entity.

Specialised lending's creditworthiness is assessed on a transactional level, rather than on the financial strength of the borrower, in so far as the group relies only on repayment from the cash flows generated by the underlying assets financed.

Retail portfolio

Retail mortgage exposures relate to mortgage loans to individuals and are a combination of both drawn and undrawn EADs.

Qualifying retail revolving exposure (QRRE) relates to current accounts, credit cards and revolving personal loans and products, and includes both drawn and undrawn exposures.

Retail other covers other branch lending and vehicle finance for retail, personal, and SME portfolios. Bank lending includes both drawn and undrawn exposures, while vehicle and asset finance only has drawn exposures.

Internally developed behavioural scorecards are used to measure the anticipated performance for each account.

Mapping of the behaviour score to a PD is performed for each portfolio using a statistical calibration of portfolio-specific historical default experience.

The behavioural scorecard PDs are used to determine the portfolio distribution on the master rating scale. Separate LGD models are used for each product portfolio and are based on historical recovery data. EAD is measured as a percentage of the credit facility limit and is based on historical averages. EAD is estimated per portfolio and per portfolio-specific segment, using internal historical data on limit utilisation.

Equity portfolio

Equity risk held in the banking book is substantively controlled in accordance with the credit risk governance standard, except in so far as it is approved and overseen under the mandate of the ERC rather than under the normal credit risk delegated authority structures.

Concentration risk

Concentration risk is the risk of loss arising from an excessive concentration of exposure to a single counterparty, an industry, a product, a geography, maturity, or collateral. The group's credit risk portfolio is well-diversified. The group's management approach relies on the reporting of concentration risk along key dimensions, the setting of portfolio limits and stress testing.



Annexure C of the group's audited AFS include an industry segmental and geographical analysis of gross loans and advances and specific credit impairments. Note 26 of the group's audited AFS include a maturity assessment of its financial asset and financial liabilities on a contractual discounted basis.

RESTRUCTURED EXPOSURES SPLIT BETWEEN IMPAIRED AND NOT IMPAIRED (BANKING OPERATIONS)¹

	2018		2017	
	Not impaired Rm	Impaired Rm	Not impaired Rm	Impaired Rm
Advances	5 032	2 237	7 137	941
Total	5 032	2 237	7 137	941

¹ This represents quarterly activity.

Credit risk mitigation

Wherever warranted, the group will attempt to mitigate credit risk, including CCR, to any counterparty, transaction, sector, or geographic region, so as to achieve the optimal balance between risk, cost, capital utilisation and reward. Risk mitigation may include the use of collateral, the imposition of financial or behavioural covenants, the acceptance of guarantees from parents or third parties, the recognition of parental support, and the distribution of risk.

Collateral, parental guarantees, credit derivatives and on- and off-balance sheet netting are widely used to mitigate credit risk. CRM policies and procedures ensure that risk mitigation techniques are acceptable, used consistently, valued appropriately and regularly, and meet the risk requirements of operational management for legal, practical and timely enforcement. Detailed processes and procedures are in place to guide each type of mitigation used.

In the case of collateral where the group has an unassailable legal title, the group's policy requires collateral to meet certain criteria for recognition in LGD modelling, including:

- being readily marketable and liquid
- being legally perfected and enforceable
- having a low valuation volatility
- being readily realisable at minimum expense
- having no material correlation to the obligor credit quality
- having an active secondary market for resale.

The main types of collateral obtained by the group for its banking book exposures include:

- mortgage bonds over residential, commercial and industrial properties
- cession of book debts
- pledge and cession of financial assets
- bonds over plant and equipment
- the underlying movable assets financed under leases and instalment sales.

Reverse repurchase agreements and commodity leases to customers are collateralised by the underlying assets.

Guarantees and related legal contracts are often required, particularly in support of credit extension to groups of

companies and weaker obligors. Guarantors include banks, parent companies, shareholders and associated obligors. Creditworthiness is established for the guarantor as for other obligor credit approvals.

For trading and derivatives transactions where collateral support is considered necessary, the group typically uses recognised and enforceable international swaps and derivatives association (ISDA) agreements, with a credit support annexure.

Netting agreements, such as collateral under the credit support annexure of an ISDA agreement, are obtained only where the group firstly has a legally enforceable right to offset credit risk by way of such an agreement, and secondly where the group has the intention of utilising such agreement to settle on a net basis.

Other credit protection terms may be stipulated, such as limitations on the amount of unsecured credit exposure acceptable, collateralisation if the mark-to-market credit exposure exceeds acceptable limits, and termination of the contract if certain credit events occur, for example, downgrade of the counterparty's public credit rating.

Wrong-way risk arises in transactions where the likelihood of default (the PD) by a counterparty and the size of credit exposure (as measured by EAD) to that counterparty tend to increase at the same time. This risk is managed both at an individual counterparty level and at an aggregate portfolio level by limiting exposure to such transactions, taking adverse correlation into account in the measurement and mitigation of credit exposure and increasing oversight and approval levels. The group has no appetite for wrong-way risk arising where the correlation between EAD and PD is due to a legal, economic, strategic or similar relationship (specific wrong-way risk). General wrong-way risk, which arises when the EAD and PD for the counterparty is correlated due to macro factors, is closely managed within existing risk frameworks.

To manage actual or potential portfolio risk concentrations in areas of higher credit risk and credit portfolio growth, the group implements hedging and other strategies from time-to-time. This is done at individual counterparty, sub-portfolio and portfolio levels through the use of syndication, distribution and sale of assets, asset and portfolio limit management, credit derivatives and credit protection.



CR3: CRM TECHNIQUES – OVERVIEW (BANKING OPERATIONS)

	Exposures unsecured: carrying amount ¹ Rm	Exposures secured ¹ Rm	Total Rm	Exposures secured by collateral Rm	Exposures secured by collateral, of which secured amount Rm	Exposures secured by financial guarantees Rm	Exposures secured by financial guarantees, of which: secured amount Rm	Exposures secured by credit derivatives Rm	Exposures secured by credit derivatives, of which: secured amount Rm
2018									
Loans	533 715	583 600	1 117 315	553 544	545 922	30 056	27 552		
Debt securities	197 534	9 430	206 964	8 693	8 693	737	737		
Off-balance sheet exposures	325 296	16 135	341 431	7 192	4 844	8 943	7 197		
Total	1 056 545	609 165	1 665 710	569 429	559 459	39 736	35 486		
Of which defaulted	12 634	13 062	25 696	13 062	12 049				
2017									
Loans	509 160	581 957	1 091 117	563 770	558 392	18 137	16 037	50	50
Debt securities	136 449	4 472	140 921	2 513	2 513	1 959	1 959		
Off-balance sheet exposures	290 621	10 782	301 403	9 220	4 630	1 562	1 292		
Total	936 230	597 211	1 533 441	575 503	565 535	21 658	19 288	50	50
Of which defaulted ²	8 792	12 500	21 292	12 500	12 500				

¹ Exposures are net of impairments.

² Restated.

CR4: STANDARDISED APPROACH – CREDIT RISK EXPOSURE AND CRM EFFECTS (BANKING OPERATIONS)

Asset classes	Exposures before CCF and CRM		Exposures post-CCF and -CRM		RWA and RWA density	
	On-balance sheet amount Rm	Off-balance sheet amount Rm	On-balance sheet amount Rm	Off-balance sheet amount Rm	RWA Rm	RWA density %
2018						
Corporates	58 742	31 843	56 325	10 875	64 905	97
SME corporates	48 813	23 042	47 851	7 512	56 669	102
Public sector entities	2 914	824	3 429	317	3 718	99
Local governments and municipalities	67	108	67	56	112	91
Sovereign	141 112	431	141 112	84	106 531	75
Banks	28 221	18 498	23 760	6 716	11 295	37
Securities firms	3		3		1	33
Retail mortgage advances	19 783	1 003	19 203	911	13 727	68
Retail revolving credit	4 141	3 759	4 079	13	3 852	94
SME retail	12 825	6 513	11 681	1 692	13 447	101
Other retail	20 868	2 869	20 526	997	19 680	91
Other assets	80 616		80 616		29 873	37
Total	418 105	88 890	408 652	29 173	323 810	74
Sum of exposures post-CCF and CRM				437 825		
					LI2/CR5	OV1
2017						
Corporates	49 090	23 184	42 195	7 922	47 836	95
SME corporates	36 651	18 322	35 703	4 535	41 094	102
Public sector entities	3 879	595	3 879	316	3 824	91
Local governments and municipalities	78		76		40	53
Sovereign	130 823		130 823		94 478	72
Banks	13 850	11 584	13 835	4 202	8 054	45
Securities firms	5		5		2	40
Retail mortgage advances	17 138	1 344	16 934	724	12 313	70
Retail revolving credit	4 089	692	3 910		3 732	95
SME retail	9 939	6 326	9 466	1 882	13 806	122
Other retail	15 915	3 601	15 520	956	16 722	101
Other assets	70 236		70 236		26 023	37
Total	351 693	65 648	342 582	20 537	267 924	74
Sum of exposures post-CCF and CRM				363 119		
					CR5	OV1



CR7: IRB – EFFECT ON RWA OF CREDIT DERIVATIVES USED AS CRM TECHNIQUES (BANKING OPERATIONS)

The table that follows explains the variations in credit RWA under the IRB approach attributable to each of the key risk drivers. Note the following:

- asset size represents organic changes in the book size and composition
- asset quality represents changes due to changes in borrower risk, such as risk grade migration or similar effects
- foreign exchange movements are changes driven by changes in foreign exchange rates.

	2018		2017	
	Pre-credit derivatives RWA Rm	Actual RWA Rm	Pre-credit derivatives RWA Rm	Actual RWA Rm
Corporates	149 980	149 980	128 652	128 563
Other asset classes ¹	285 327			269 935
Specialised lending – high volatility commercial real estate (HVCRE) (property development)	176			15
Specialised lending – income producing real estate (IPRE)	5 800			5 145
Specialised lending – project finance	13 350			11 891
SME corporates	20 544			13 712
Securities firms	125			145
Sovereign	6 498			5 334
Public sector entities	6 126			13 025
Local governments and municipalities	1 817			1 775
Banks	23 928			28 842
Retail mortgages	91 461			91 300
QRRE	52 233			47 680
Retail – other	23 798			19 551
SME retail	24 682			24 255
Equity	14 789			7 265
Total (all portfolios)	435 307			398 498
		OV1/CR6/CR8		OV1/CR6/CR8

¹ Other asset classes' pre-credit derivatives RWA is equivalent to actual.

CR8: IRB – RWA FLOW STATEMENTS OF CREDIT RISK EXPOSURES (BANKING OPERATIONS)

The table below provides backtesting data to validate the reliability of PD calculations.

Current weighted average PD estimates are determined at the beginning of a 12-month horizon using the calibrated regulatory models. The models are calibrated to actual long-run default experience to ensure stable regulatory estimates over a complete credit cycle.

The PD estimates would thus tend to underestimate actual default experience at the top of the cycle and overestimate actual default experience at the bottom of the credit cycle. The average historical default rate is the actual, annual default rate experience, averaged over a five-year period.

	2018 RWA Rm	2017 RWA Rm
RWA at beginning of period	398 498	369 165
Asset size	26 220	28 708
Asset quality	4 422	9 758
Foreign exchange movements	9 056	(6 590)
Other	(2 889)	(2 543)
RWA at end of period	435 307	398 498
	OV1/CR6 CR7	OV1/CR6/CR8

CR9: IRB – BACKTESTING OF PD PER PORTFOLIO (BANKING OPERATIONS)

Portfolio ¹	PD Range	External rating equivalent	Weighted average PD	Arithmetic average PD by obligors
2018				
Banks	0.03% to 40.96%	BBB-	0.20%	0.41%
Corporates	0.01% to 40.96%	BB	0.80%	1.24%
Sovereign	0.01% to 2.56%	BB+	0.07%	0.69%
Corporate specialised lending	0.08% to 5.12%	BB+	0.82%	0.83%
HVCRE	0.90% to 3.62%	BB-	3.45%	2.14%
IPRE	0.11% to 3.62%	BB+	0.68%	0.85%
Project finance	0.08% to 5.12%	BB+	0.92%	0.78%
Retail mortgages	0.035% to 100%	B3	3.02%	2.87%
Retail other	0.123% to 100%	Caa1	5.21%	10.47%
Retail SME	0.030% to 100%	B3	3.03%	3.91%
QRRE	0.030% to 100%	Caa1	4.90%	5.01%
2017²				
Banks	0.03% to 10.24%	BBB	0.25%	0.34%
Corporates	0.01% to 40.96%	BB	0.93%	1.49%
Sovereign	0.01% to 1.81%	BBB-	0.05%	0.39%
Corporate specialised lending	0.11% to 7.24%	BB+	0.94%	0.99%
HVCRE	1.28% to 1.81%	BB	1.41%	1.41%
IPRE	0.11% to 5.12%	BB+	0.81%	1.00%
Project finance	0.23% to 7.24%	BB+	1.05%	0.93%
Retail mortgages	0.035% to 100%	Ba1	3.26%	3.10%
Retail other	0.123% to 100%	Ba3	5.02%	9.68%
Retail SME	0.030% to 100%	Ba2	2.95%	4.12%
QRRE	0.030% to 100%	B1	4.76%	5.48%

1 The dimension portfolio includes the following prudential portfolios for the FIRB approach:

(i) sovereign; (ii) banks; (iii) corporates; (iv) corporate – specialised lending; (v) equity (PD/LGD method); (vi) purchased receivables, and the following prudential portfolios for the AIRB approach: (i) sovereign; (ii) banks; (iii) corporates; (iv) corporate – specialised lending; (v) equity (PD/LGD method); (vi) retail – QRRE; (vii) retail – residential mortgage exposures; (viii) retail – SME; (ix) other retail exposures; and (x) purchased receivables.

• Weighted average PD: excludes defaults and is therefore not the same as CR6

• Arithmetic average PD by obligors: PD within range by number of obligor within the range

• Defaulted obligors in the year: number of defaulted obligors during the year; of which: new obligors defaulted in the year: number of obligors having defaulted during the last 12-month period that were not funded at the end of the previous financial year

• Average historical annual default rate: the five-year average of the annual default rate (obligors at the beginning of each year that defaulted during that year/total obligor held at the beginning of the year) is a minimum.

2 Restated.

CR10: IRB EQUITIES UNDER THE SIMPLE RISK-WEIGHT METHOD (BANKING OPERATIONS)

Categories	On-balance sheet amount Rm	Off-balance sheet amount Rm	Risk weight %	RWA Rm
2018				
Private equity exposures	774	400	3 282	
Total	774		3 282	
	LI2		OV1	
2017				
Private equity exposures	1 451	400	6 154	
Total	1 451		6 154	
			OV1	


Number of obligors

End of previous year	End of the year	Defaulted obligors in the year	Of which: new defaulted obligors in the year	Average historical annual default rate
275	267	1		0.39%
1 599	1 613	80	30	0.88%
34	33	1		
273	259	8	1	0.89%
4	3	3		0.76%
228	211	3	1	0.87%
41	45	2		2.75%
543 117	540 245	16 738	12 593	3.70%
361 469	415 940	27 697	25 931	9.74%
587 126	593 645	22 409	20 349	6.65%
4 780 644	4 048 248	216 330	197 126	7.38%
282	275	1		0.45%
1 703	1599	67	16	0.90%
27	34			
319	273	13	2	0.97%
7	4	2		0.87%
272	228	9	2	0.94%
40	41	2		3.15%
550 895	543 117	16 981	13 285	3.75%
356 633	361 469	26 568	24 603	9.95%
616 511	587 126	36 126	32 742	6.02%
4 549 753	4 780 644	242 025	223 033	6.77%

Counterparty credit risk

The group is exposed to CCR through movements in the fair value of securities financing and derivatives contracts. The risk amounts reflect the aggregate replacement costs that would be incurred by the group in the event of counterparties defaulting on their obligations.

The group's exposure to CCR is affected by the nature of the trades, the creditworthiness of the counterparty, and underlying netting and collateral arrangements. CCR is measured in PFE terms and recognised on a net basis where netting agreements are in place and are legally enforceable, or otherwise on a gross basis. Exposures are generally marked-to-market daily. Cash or near cash collateral is posted where contractually provided for.

Demand for economic capital, as a risk appetite dimension, is allocated to risk types (including CCR) in accordance with the group risk appetite governance framework and serves as the basis for the setting of internal CCR appetite limits against which aggregate risk type exposure can be measured.

CCR, reflecting both pre-settlement and settlement risk, is subjected to explicit credit limits which are formulated and approved for each counterparty and economic group, with specific reference to its credit rating and other credit exposures to that counterparty.

In the event of a rating downgrade, the collateral that the group would have to provide is dependent on a number of variables, including the netting of existing positions and a reduction in the threshold above which collateral would have to be posted with counterparties to cover the group's negative mark-to-market. With respect to additional collateral that the group may be

required to lodge with trading counterparties in the event of a rating downgrade, refer to page 81.

For trades that are not subject to margining requirements, the replacement cost is the loss that would occur if a counterparty were to default and its transactions closed immediately. For margined trades, it is the loss that would occur if a counterparty were to default at the current or future date, assuming that the close-out and replacement of transactions occur instantaneously. However, the close-out of a trade upon a counterparty default may not be instantaneous. The replacement cost under the current exposure method is determined by marking contracts to market.

PFE is any potential increase in exposure between the present and up to the end of the margin period of risk. The PFE for the current exposure method is determined by applying a prescribed add-on factor to the underlying notional amount to determine the PFE over the life of the contract.

Effective expected positive exposure is the weighted average over time 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 are the proportion that an individual expected exposure represents of the entire time interval.

EAD post-CRM refers to the amount that is relevant for the capital requirements calculation having applied CRM techniques, credit valuation adjustments (CVA) and specific wrong-way adjustments.

CCR1: ANALYSIS OF CCR EXPOSURE BY APPROACH (BANKING OPERATIONS)

	Replacement cost Rm	PFE Rm	Alpha used for computing regulatory EAD	EAD post-CRM Rm	RWA Rm	
2018						
Current exposure method (for derivatives)	58 459	54 627	1.4	33 717	14 027	
Comprehensive approach for CRM (for SFTs)				7 627	3 523	
Total	58 459	54 627	1.4	41 344	17 550	
CVA				CCR3/LI2	9 339	CCR2
CCP and default funds					449	CCR8
Total					27 338	
					OV1	
2017						
Current exposure method (for derivatives)	73 001	42 623	1.4	28 985	12 563	
Comprehensive approach for CRM (for SFTs)				5 037	1 475	
Total	73 001	42 623	1.4	34 022	14 038	
CVA				CCR3	10 132	CCR2
CCP and default funds					180	CCR8
Total					24 350	
					OV1	


CCR2: CVA CAPITAL CHARGE (BANKING OPERATIONS)

	2018		2017	
	EAD post-CRM Rm	RWA Rm	EAD post-CRM Rm	RWA Rm
All portfolios subject to the standardised CVA capital charge	33 717	9 339	28 985	10 132
Total subject to the CVA capital charge	33 717	9 339	28 985	10 132

CCR1

CCR3: STANDARDISED APPROACH – CCR EXPOSURES BY REGULATORY PORTFOLIO AND RISK-WEIGHTS (BANKING OPERATIONS)

	Risk-weights								Total credit exposure	
	0%	10%	20%	50%	75%	100%	150%	Other		
2018										
Regulatory portfolios										
Corporates						1 711	3		1 714	
SME corporates						310	1		311	
Public sector entities					133	800			933	
Local governments and municipalities										
Sovereign		48				1 793			1 841	
Banks	607		145			175			927	
Securities firms		77		567					644	
Retail exposure										
Retail mortgage advances										
Retail revolving credit										
SME retail										
Other retail										
Securitisation and re-securitisation exposure										
Total		732	845		4 789	4			6 370	
EAD									Li2	
Total									CCR4/LI2	
2017										
Regulatory portfolios										
Corporates						1 542	7		1 549	
SME corporates						421			421	
Public sector entities										
Local governments and municipalities										
Sovereign						286			286	
Banks	323		484						807	
Securities firms				85					85	
Retail exposure										
Retail mortgage advances										
Retail revolving credit										
SME retail						6			6	
Other retail										
Securitisation and re-securitisation exposure										
Total		323	569		2 255	7			3 154	
EAD									CCR4	
Total									CCR1	
									34 022	

CCR4: IRB – CCR EXPOSURES BY PORTFOLIO AND PD SCALE (TOTAL)¹ (BANKING OPERATIONS)

The table below provides information on all the relevant parameters used for the calculation of CCR capital requirements under the IRB approach. To note:

- EAD post-CRM is the EAD as calculated under the applicable CCR approach and after applying CRM but gross of accounting provisions
- number of obligors correspond to the number of individual PDs in a band
- average PD and LGD are weighted by EAD
- RWA density is total RWA to EAD post-CRM.

PD scale	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %
2018							
0.00 to 0.15	22 544	0.05	69	39.20	1.5	4 040	17.92
0.15 to 0.25	811	0.22	45	39.97	1.4	325	40.03
0.25 to 0.50	8 755	0.43	193	43.34	1.9	6 260	71.50
0.50 to 0.75	837	0.64	87	34.45	2.0	487	58.16
0.75 to 2.50	1 215	1.14	150	42.96	2.0	1 084	89.30
2.50 to 10.00	808	5.05	56	33.09	3.1	886	109.84
10.00 to 100.00	3	10.24	2	61.52	1.0	8	257.17
100.00 (default)	1	100.00	3	40.09	1.0	1	108.66
Total	34 974	0.32	605	40.13	1.6	13 091	37.43
LI2/CCR3							
2017							
0.00 to 0.15	17 525	0.05	73	37.90	1.6	3 152	17.99
0.15 to 0.25	2 498	0.22	53	32.33	2.3	862	34.49
0.25 to 0.50	7 388	0.43	184	40.80	1.7	4 705	63.71
0.50 to 0.75	1 817	0.64	96	36.80	2.9	1 302	71.63
0.75 to 2.50	1 398	1.32	154	35.28	2.5	1 137	81.31
2.50 to 10.00	236	3.18	58	38.84	1.2	251	105.97
10.00 to 100.00	6	37.10	6	37.58	1.0	13	198.34
100.00 (default)		100.00	2	40.09	1.0	1	531.19
Total	30 868	0.28	626	37.97	1.8	11 423	37.01
CCR3							

¹ Refer to Annexure B for exposures by portfolio.



CCR5: COMPOSITION OF COLLATERAL FOR CCR EXPOSURE¹ (BANKING OPERATIONS)

Table CCR5 discloses a breakdown of all types of collateral posted or received to support or reduce the CCR exposures related to derivative and SFTs. The total collateral posted or received is reflected.

	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated Rm	Unsegregated ² Rm	Segregated Rm	Unsegregated ² Rm	Rm	Rm
2018						
Cash – domestic currency		9 275		538	29 681	24 278
Cash – other currencies		1 360		6 032	14 853	34 577
Domestic sovereign debt		1 145			16 498	26 382
Other sovereign debt					7 285	
Government agency debt		486			64	
Corporate bonds					25 901	812
Equity securities					2 748	13 394
Other collateral					12 380	
Total		12 266		6 570	109 410	99 443
2017						
Cash – domestic currency		7 924		3 166	34 620	21 531
Cash – other currencies		1 612		8 580	31 946	
Domestic sovereign debt		755			8 098	11 215
Other sovereign debt					4 508	
Government agency debt					41	38
Corporate bonds					24 807	1 140
Equity securities		794			3 191	5 657
Other collateral					15 240	16 799
Total		11 085		11 746	90 505	88 326

¹ Per the requirement of the framework, collateral includes both cash and securities that are subject to the transaction. Collateral items are presented at fair value and gross of haircuts.

² Unsegregated refers to collateral not held in a bankruptcy-remote manner.

CCR6: CREDIT DERIVATIVES EXPOSURES (BANKING OPERATIONS)

The table that follows details the group's exposure to credit derivatives with a distinction made between protection bought and sold.

	2018		2017	
	Protection bought Rm	Protection sold Rm	Protection bought Rm	Protection sold Rm
Notionals				
Single-name credit default swaps	12 982	32 447	5 870	26 698
Index credit default swaps	6 453		3 060	4 211
Total return swaps	4 026	4 314	2 875	1 014
Other credit derivatives	19 345	4 341	24 830	2 411
Total notionals	42 806	41 102	36 635	34 334
Fair values				
Positive fair value (asset)	960	162	432	366
Negative fair value (liability)	1 728	1 087	669	498

CCR8: EXPOSURES TO CENTRAL COUNTERPARTIES (BANKING OPERATIONS)

	2018		2017	
	EAD (post-CRM) Rm	RWA Rm	EAD (post-CRM) Rm	RWA Rm
Exposures to qualifying CCPs (total)	30 523	449	13 602	180
Exposures for trades at qualifying CCPs (excluding initial margin and default fund contributions) of which:				
OTC derivatives	17 223	344	3 400	141
Exchange-traded derivatives ¹	3 351	67	2 815	53
	13 872	277	585	88
Segregated initial margin				
Non-segregated initial margin				
Pre-funded default fund contributions	13 156	101	10 084	35
	144	4	118	4

¹ Calculation of EAD includes supervisory add-on factor for all exchange-traded derivatives.

Securitisation

Securitisation is a transaction whereby the credit risk associated with an exposure, or pool of exposures, is trashed and passed on to investors, typically through loan notes, and where payments to investors through the loan notes in the transaction are dependent upon the performance of the exposure or pool of exposures.

A traditional securitisation involves the transfer of the exposures being securitised to a structured entity (SE) which issues securities. In a synthetic securitisation, the tranching is achieved by the use of credit derivatives and the underlying exposures are not removed from the balance sheet.

The group uses SEs to securitise customer loans and advances that it has originated to diversify its sources of funding for asset origination, for capital efficiency purposes and to reduce risk. In addition, the group plays a secondary role as an investor in certain third-party securitisation note issuances (SEs established by third-parties).

The following SEs have been established by the group. As at the end of the 2018 financial year, the group is in the process of winding down all of these SEs and has, pursuant to all required regulatory consents, been repurchasing these entities' performing assets. None of the SEs have any notes outstanding.

- Blue Granite Investments No. 1 (RF)¹ Limited (BG 1)
- Blue Granite Investments No. 2 (RF) Limited (BG 2)
- Blue Granite Investments No. 3 (RF) Limited (BG 3)
- Blue Granite Investments No. 4 (RF) Limited (BG 4)
- Siyakha Fund (RF) Limited (Siyakha)
- Blue Titanium Conduit (RF) Limited (BTC).

¹ Ring-fenced.

Securitisation achieves the following objectives for investors and third-party issuers:

- facilitating non-banks' access to asset classes traditionally only available to banks
- diversification of investment asset base
- potential yield pick-up for investors or a reduction in funding costs for issuers (disintermediation of the banking sector).

Securitisation achieves the following objectives for the group:

- securitisation is used to raise funding and transfer risk out of the banking system
- the group has originated a number of securitisations of its own home loan assets. All of these transactions were aimed at diversifying the bank's funding base beyond the group's normal wholesale deposit base
- the group has always retained the subordinated loans and consequently transactions have not resulted in a reduction of the RWA associated with the securitised loans
- securitisation transactions arranged for third-parties, allow the bank to earn arranging fees, as well as ancillary fee income from providing banking, back-up servicing, interest rate swaps and liquidity facilities
- since 2014, the group also makes use of securitisation structures to provide collateral for the SARB committed liquidity facility aimed at meeting the new LCR requirements. In these transactions the notes issued by the SE, as well as the subordinated loan are retained by SBSA.



SEC1: SECURITISATION EXPOSURES IN THE BANKING BOOK (BANKING OPERATIONS)

	Bank acts as originator	Bank acts as sponsor	Bank acts as investor
	Traditional Rm	Traditional Rm	Traditional Rm
2018			
Retail			
Of which: residential mortgages	49 330	3 604	569
Of which: other retail exposures			
Of which: re-securitisation	49 330	3 296	101
Of which: re-securitisation		308	468
Wholesale			
Of which: re-securitisation			
2017			
Retail		50 485	3 818
Of which: residential mortgages		50 485	3 061
Of which: other retail exposures			288
Of which: re-securitisation			469
Wholesale			1 511
Of which: re-securitisation			1 511

For originated and sponsored or administered securitisations consolidated under IFRS (that is, BG 1-4, Siyakha and BTC), intragroup exposures to and between these securitisations have been eliminated and the underlying assets consolidated in the relevant sections and classes in this report. Only exposures to securitisations of assets originated by third-parties are disclosed below. The approach applied in the calculation of RWA is dependent on the group's approved model for the underlying assets and the existence of a rating from an eligible external credit assessment institution.

To date, the group has applied the standardised approach, the ratings-based approach and the standard formula approach, where relevant, in the calculation of RWA.

For local securitisations in SA, Moody's Investor Services and/or Global Ratings Company act as rating agencies.

The transfer of assets by the group to an SE may give rise to the full or partial derecognition of the financial assets concerned.

Only in the event that derecognition is achieved are sales and any resultant gains or losses on disposals recognised in the financial statements. Where the SEs are consolidated at group level, such gains or losses are eliminated.

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

	Exposure values (by risk-weighted (RW) bands)				
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1 250% RW	1 250%
2018					
Total exposures	3 491		112		1
Traditional securitisation					
Of which: securitisation					
Of which: retail underlying	3 491		112		1
Of which: wholesale	3 491		112		1
Of which: re-securitisation					
Of which: senior	3 491		112		1
Of which: non-senior					
Synthetic securitisation					
Of which: securitisation					
Of which: retail underlying					
2017					
Total exposures	3 111		706		
Traditional securitisation					
Of which: securitisation					
Of which: retail underlying	3 111		706		
Of which: wholesale	3 111		238		
Of which: re-securitisation					
Of which: senior	3 111		238		
Of which: non-senior					
Synthetic securitisation					
Of which: securitisation					
Of which: retail underlying					

¹ Ratings-based approach.

² Internal assessment approach.

³ Supervisory formula approach.

⁴ Simplified supervisory formula approach.



Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap			
IRB RBA ¹ (includ- ing IAA ²)	IRB SFA ³	Standar- dised approach/ SSFA ⁴	1 250%	IRB RBA ¹ (includ- ing IAA ²)	IRB SFA ³	Standar- dised approach/ SSFA ⁴	1 250%	IRB RBA ¹ (includ- ing IAA ²)	IRB SFA ³	Standar- dised approach/ SSFA ⁴	1 250%
1 005	2 599			280	193			35	24		
1 005	2 599			280	193			35	24		
1 005	2 599			280	193			35	24		
1 005	2 599			280	193			35	24		
OV1											
1 013	2 804			394	353			46	41		
1 013	2 804			394	353			46	41		
1 013	2 336			394	180			46	21		
1 013	2 336			394	180			46	21		
468				173				20			
468				173				20			
OV1 OV1											

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

	Exposure values (by RW bands)				
	≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1 250%
2018					
Total exposures	101	468			
Traditional securitisation					
Of which: securitisation					
Of which: retail underlying	101	468			
Of which: wholesale	101	468			
Of which: re-securitisation					
Of which: senior	101	468			
Of which: non-senior					
Synthetic securitisation					
Of which: securitisation					
Of which: retail underlying					
Of which: wholesale					
Of which: re-securitisation					
Of which: senior					
Of which: non-senior					

INSURANCE OPERATIONS

Consolidated mutual funds

Liberty invests in mutual funds through which it is also exposed to the credit risk of the underlying assets in which the mutual funds are invested. Liberty's exposure to mutual funds is classified at fund level and not at the underlying asset level and, although mutual funds are not rated, fund managers are required to invest in credit assets within the defined parameters stipulated in the fund's mandate. These rules generally restrict funds to the acquisition of investment grade assets.

Liberty is exposed to CCR in respect of investment reinsurance policies, as well as the underlying debt instruments supporting the valuation of these policies.

Credit exposure to debt instruments

Various debt instruments are entered into by Liberty in order to match policyholder liabilities and invest surplus shareholder funds. Liberty is primarily exposed to the credit-standing of the counterparties that issued these instruments in terms of both default and spread risk.

Liberty is exposed to the credit risk of counterparties with whom Liberty has hedged out its market risk exposures. This credit risk is materially mitigated by the use of collateral support agreements and in terms of ISDA.



Reinsurance

Reinsurance is used to manage insurance risk and consequently reinsurance assets are raised for expected recoveries on projected claims. This does not, however, discharge Liberty's liability as primary insurer. In addition, reinsurance debtors are raised for specific recoveries on claims recognised.

A detailed credit analysis is conducted prior to the appointment of reinsurers. Cognisance is taken of the potential future claims on reinsurers in the assessment process. Financial strength, performance, track record, relative size, ranking within the industry and credit-standing of reinsurers are taken into account when determining the allocation of business to reinsurers. In addition, efforts are made to appropriately diversify exposure by using several reinsurers. A review of these reinsurers is done at least annually.

Impairments – policyholder loans

Policyholder loans are impaired when the amount of the loan exceeds the policyholder's investment balance. The loans are recoverable through offset against policyholders' investment balances at policy maturity dates.

**69 APPROACH TO MANAGING
COMPLIANCE RISK**

- 69 General approach
- 69 Approach to managing conduct risk
- 69 Approach to managing money laundering and terrorist financing
- 69 Approach to managing sanctions
- 69 Approach to managing anti-bribery and corruption
- 69 Approach to managing health, safety and environmental risk

69 GOVERNANCE



Compliance risk



APPROACH TO MANAGING COMPLIANCE RISK

General approach

The compliance function is mandated by the GAC to operate independently of business as a second line of defence function, in terms of the requirements of the Banks Act and regulations.

The management of compliance risk is standardised across the group. It is premised on internationally accepted principles for financial service providers, as well as supervisory and client expectations.

Compliance risk management is a core risk management activity overseen by the GCCO. The GCCO has unrestricted access to the chairman of the GAC and is a standing attendee at GAC meetings. The head of group financial crime compliance (incorporating money laundering and terrorist financing (ML/TF) control, anti-bribery and corruption (ABC) and sanctions control) is a standing attendee of the GAC, reporting on the status of financial crime compliance in the bank.

The GCCO has a reporting line to the chief executive and is a member of various group management committees, including the group executive committee, GROC, and the group social and ethics committee.

A comprehensive risk management reporting and escalation procedure requires compliance executives to report on the status of compliance risk management in the group to the GCCO, who escalates significant matters to relevant management and board committees. These matters include key regulatory interaction, legislative developments, as well as significant compliance initiatives and current and developing compliance risks and exposures. The group has no tolerance for knowingly breaching regulatory requirements. Group compliance gives biannual input to the group remuneration committee in consideration of reward allocations.

Focus on the group's technological capability, including coverage and surveillance capability in all jurisdictions, is key to supporting both regulatory requirements, and supervisory and client expectations. To this end, there is a constant emphasis on ensuring that systems are fit-for-purpose, and digitisation is a key focus area of the compliance risk management response. To support transition to an effective data and technology-driven function, compliance is progressing with utilising AI, predictive analytics, machine learning and process automation to enhance personalised client journeys and simplifying the client experience, in support of a multinational client franchise. The focus on compulsory compliance training continues, with the rollout of an agile digitised system that enables staff in all operations to complete their training on any smart device. Consequence management is applied for non-completion of compulsory compliance training.

The monitoring of compliance with laws, rules and regulations has been standardised across the group, using a methodology that is in alignment with a combined assurance model.

The group privacy office resides within group compliance and manages compliance with the applicable data protection legislation. The group privacy officer, together with jurisdictional privacy officers, manages data privacy risk through the data privacy programme.

Board members, executive management and employees are made aware of their regulatory and legislative responsibilities through advice provided by group compliance, reporting, formal training, awareness sessions or face-to-face training. This has included bespoke training to regulators in various jurisdictions.

Approach to managing conduct risk

The process of embedding good conduct is underpinned by the group's code of ethics and values. The group holds itself and its stakeholders to high ethical standards and will continue to focus on doing the right business the right way, by balancing sustainable returns for stakeholders with fair client outcomes and good business practices.

Approach to managing money laundering and terrorist financing

The framework and structures for managing the group's ML/TF risk are designed and maintained to ensure compliance with Financial Action Task Force recommendations and in-country legislative requirements in all jurisdictions. The SA Financial Intelligence Centre Act has been amended to incorporate a risk-based approach to compliance in relation to the AML/CFT regulatory framework. This includes the requirement for developing, documenting, maintaining and implementing a risk management and compliance programme that must demonstrate the group's ability to effectively apply a risk-based approach.

An implementation programme with an impact analysis that will ensure that the group continues to be aligned with all regulatory requirements is in progress.

Approach to managing sanctions

The group sanctions and client risk review committee, supported by the group sanctions desk, is responsible for providing advice and decisions on sanctions-related matters in a fluid sanctions environment.

Approach to managing anti-bribery and corruption

ABC risk within the group is managed in accordance with the OECD Guidance for Multinational Enterprises. Oversight of ABC is provided by the bribery and corruption review committee.

Specialised training was developed for areas that are perceived as being more susceptible to bribery and corruption risk. An ABC risk assessment for the group was completed during 2018 and presented to the group social and ethics committee.

Approach to managing health, safety and environmental risk

Any risks to the health and safety of employees and stakeholders resulting from hazards in the workplace and/or potential exposure to occupational illness, as well as the group's exposure to the risk of impacting directly on the environment through business, are managed by the health, safety, and environmental risk management team and are supported by executive management accountability structures.

GOVERNANCE

The primary management level governance committee overseeing compliance risk is the group compliance committee. Compliance is also represented on, and submits reports to, various group management and board committees, all of which facilitate awareness of compliance risk-related matters. The principal governance document is the group compliance risk governance standard, supported by the compliance risk management framework, which underpins accountability and control frameworks.

- 71 APPROACH TO MANAGING COUNTRY RISK
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- 71 COUNTRY RISK PORTFOLIO CHARACTERISTICS AND METRICS



Country risk



APPROACH TO MANAGING COUNTRY RISK

All countries to which the group is exposed are reviewed at least annually. Internal rating models are employed to determine ratings for jurisdiction, sovereign and transfer and convertibility risk. In determining the ratings, extensive use is made of the group's network of operations, country visits and external information sources. These ratings are also a key input into the group's credit rating models.

The model inputs are continuously updated to reflect economic and political changes in countries. The model outputs are internal risk grades that are calibrated to a jurisdiction risk grade from aaa to d, as well as sovereign risk grade, and transfer and convertibility risk grade (SB) from SB01 to SB25. Countries with sovereign/jurisdiction risk ratings weaker than SB07/a, referred to as medium- and high-risk countries, are subject to more detailed analysis and monitoring.

Country risk is mitigated through a number of methods, including:

- political and commercial risk insurance
- co-financing with multilateral institutions
- structures to mitigate transfer and convertibility risk such as collection, collateral and margining deposits outside the jurisdiction in question.

GOVERNANCE

The primary management level governance committee overseeing this risk type is the group country risk management committee.

The principal governance document is the country risk governance standard.

APPROVED REGULATORY CAPITAL APPROACHES

There are no regulatory capital requirements for country risk.

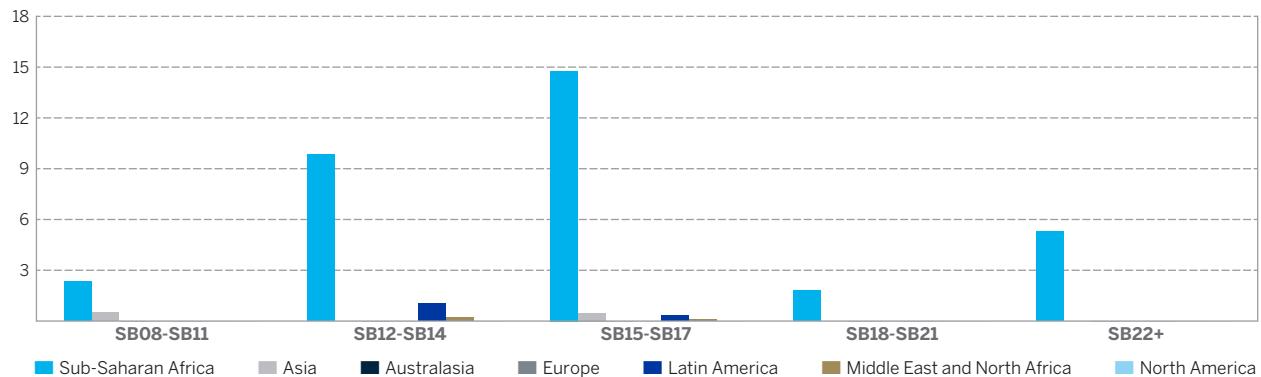
Country risk is, however, incorporated into regulatory capital for credit in the IRB approaches through the jurisdiction risk and transfer and convertibility risk ratings' impact on credit grades.

COUNTRY RISK PORTFOLIO CHARACTERISTICS AND METRICS

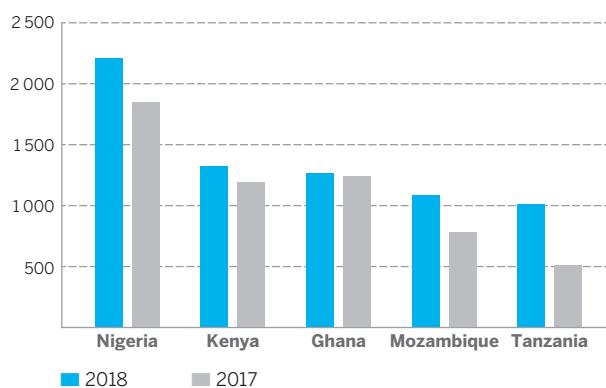
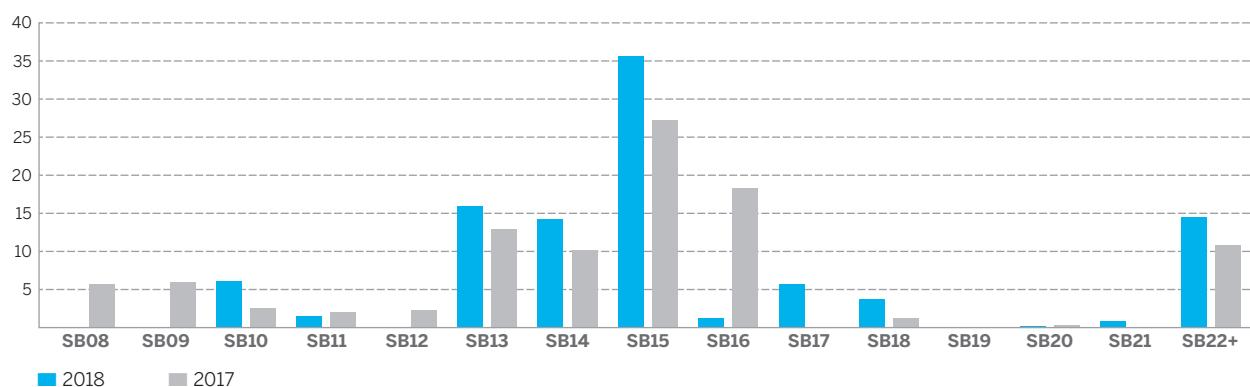
The distribution of cross-border country risk exposures is weighted towards European, Asian and North American low-risk countries, as well as sub-Saharan African medium- and high-risk countries.

COUNTRY RISK EXPOSURE BY REGION AND RISK GRADE

Risk grade	Sub-Saharan Africa %	Asia %	Australasia %	Europe %	Latin America %	Middle East and North Africa %	North America %
2018							
SB01-SB07	2.45	26.45	0.93	23.19		2.27	7.96
SB08-SB11	2.32	0.49					
SB12-SB14	9.85				1.03	0.22	
SB15-SB17	14.79	0.48			0.35	0.07	
SB18-SB21	1.80						
SB22+	5.29						
2017							
SB01-SB07	0.58	23.97	1.40	26.04		1.63	10.71
SB08-SB11	4.61	0.92			0.15		
SB12-SB14	8.01				0.71	0.17	
SB15-SB17	15.91						
SB18-SB21	0.95	0.33					
SB22+	3.91						

Medium- and high-risk country exposure by region (%)

The exposures to the top five medium- and high-risk countries are in line with the group's growth strategy, which is focused on Africa.

Top five medium- and high-risk country EAD (USDm)**Medium- and high-risk country EAD concentration by country ceiling (%)**

Funding and liquidity risk

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BANKING OPERATIONS

Approach to managing liquidity risk

The nature of the group's banking and trading activities gives rise to continuous exposure to liquidity risk. Liquidity risk may arise where counterparties who provide the group with short-term funding withdraw or do not roll over that funding, or in a case where liquid assets become illiquid as a result of a generalised disruption in the asset markets.

The group manages liquidity in accordance with applicable regulations and within the group's risk appetite governance framework. The group's liquidity risk management governance framework supports the measurement and management of liquidity, in all geographies across both the corporate and retail

sectors to ensure that payment obligations can be met by the group's legal entities under both normal and stressed conditions and that regulatory minimum requirements are met at all times. This is achieved through a combination of maintaining adequate liquidity buffers, to ensure that cash flow requirements can be met, and ensuring that the group's balance sheet is structurally sound and supportive of the group's strategy. Liquidity risk is managed on a consistent basis across the group's banking subsidiaries, allowing for local requirements. Liquidity risk management ensures that the group has the appropriate amount, diversification and tenor of funding and liquidity to support its asset base at all times.

The group manages liquidity risk as three interrelated pillars, which are aligned to the Basel III liquidity requirements.

LIQUIDITY MANAGEMENT CATEGORIES

TACTICAL (SHORT-TERM) LIQUIDITY RISK MANAGEMENT	STRUCTURAL (LONG-TERM) LIQUIDITY RISK MANAGEMENT	CONTINGENCY LIQUIDITY RISK MANAGEMENT
<ul style="list-style-type: none"> • manage intra-day liquidity positions 	<ul style="list-style-type: none"> • ensure a structurally sound balance sheet 	<ul style="list-style-type: none"> • monitor and manage early warning liquidity indicators
<ul style="list-style-type: none"> • monitor interbank and repo shortage levels 	<ul style="list-style-type: none"> • identify and manage structural liquidity mismatches 	<ul style="list-style-type: none"> • establish and maintain contingency funding plans
<ul style="list-style-type: none"> • monitor daily cash flow requirements 	<ul style="list-style-type: none"> • determine and apply behavioural profiling 	<ul style="list-style-type: none"> • undertake regular liquidity stress testing and scenario analysis
<ul style="list-style-type: none"> • manage short-term cash flows 	<ul style="list-style-type: none"> • manage long-term cash flows 	<ul style="list-style-type: none"> • convene liquidity crisis management committees, if needed
<ul style="list-style-type: none"> • manage daily foreign currency liquidity 	<ul style="list-style-type: none"> • preserve a diversified funding base 	<ul style="list-style-type: none"> • set liquidity buffer levels in accordance with anticipated stress events
<ul style="list-style-type: none"> • set deposit rates in accordance with structural and contingent liquidity requirements as informed by ALCO. 	<ul style="list-style-type: none"> • inform term funding requirements • assess foreign currency liquidity exposures • establish liquidity risk appetite • ensure appropriate transfer pricing of liquidity costs • ensure compliance with Basel III NSFR. 	<ul style="list-style-type: none"> • advise on the diversification of liquidity buffer portfolios • ensure compliance with Basel III LCR.

The funding and liquidity risk disclosure is based on Basel III principles, including behavioural profiling methods and assumptions, as well as phasing-in requirements where applicable.

The LCR is a metric introduced by the BCBS to measure a bank's ability to manage a sustained outflow of customer funds in an acute stress event over a 30-day period. The ratio is calculated by taking the group's HQLA and dividing it by net cash outflows. The minimum regulatory LCR requirement for 2018 was 90%, increasing by a further 10% on 1 January 2019 to reach the full 100% requirement.

The group exceeded the 90% minimum phase-in requirement for 2018 with a ratio of 116.8% (2017: 135.1%).

The NSFR metric is designed to ensure that term assets are sufficiently funded by stable sources, such as capital, term borrowings or other stable funds. The group successfully managed the balance sheet structure and maintained NSFR compliance for 2018 in excess of the 100% regulatory, as well as specified risk appetite requirements.

Governance

The primary governance committee overseeing liquidity risk is group ALCO. ALCOs have been established in each of the group's banking subsidiaries and manage in-country liquidity risk.

The principal governance documents are the liquidity risk governance standard and model risk governance framework.



Liquidity characteristics and metrics

OVERVIEW OF FUNDING AND LIQUIDITY METRICS

	2018	2017
Total contingent liquidity (Rbn)	385.1	322.3
Eligible Basel III LCR HQLA (Rbn)	301.3	251.3
Managed liquidity (Rbn)	83.8	71.0
Total contingent liquidity as a % of funding-related liabilities (%)	27.6	25.2
Single depositor (%)	2.2	1.7
Top 10 depositors (%)	7.9	7.6
Basel III LCR (quarterly average %)	116.8	135.1
Minimum regulatory LCR requirement (%)	90.0	80.0
Basel III NSFR (%) ¹	118.6	
Minimum regulatory NSFR requirement (%)	100.0	

¹ Only effective 1 January 2018.

Contingency liquidity risk management

Contingency funding plans

Contingency funding plans are designed to protect stakeholder interests and maintain market confidence in the event of a liquidity crisis. The plans incorporate an early warning indicator process supported by clear crisis response strategies. Early warning indicators cover bank-specific and systemic crises and are monitored according to assigned frequencies and tolerance levels.

Crisis response strategies are formulated for the relevant crisis management structures and address internal and external communications and escalation processes, liquidity generation management actions and operations, and heightened and supplementary information requirements to address the crisis event. The updating of contingency funding plans, while considering budget forecasting, continues to be a focus area for the asset liability management teams across the group.

The group, in line with the SARB's requirements, updates and submits its recovery and resolution plans to the SARB on an annual basis. The group's recovery plan incorporates the contingent liquidity funding plan in addition to the focus given to capital planning and business continuity planning.

Liquidity stress testing and scenario analysis

Stress testing and scenario analysis are based on hypothetical and historical events. These are conducted on the group's funding profiles and liquidity positions. The crisis impact is typically measured over a 30 calendar-day period as this is considered the most crucial time horizon for a liquidity event. This measurement period is also consistent with the Basel III LCR requirements.

Anticipated on- and off-balance sheet cash flows are subjected to a variety of bank-specific and systemic stresses and scenarios to evaluate the impact of unlikely but plausible events on liquidity positions. The results are assessed against the liquidity buffer and contingency funding plans to provide assurance as to the group's ability to maintain sufficient liquidity under adverse conditions.

Internal stress testing metrics are supplemented with the regulatory Basel III LCR in monitoring the group's ability to survive severe stress scenarios.

The Basel III LCR analysis that follows includes banking and/or deposit taking entities and represents an aggregation of the relevant individual net cash outflows and HQLA portfolios. These results reflect the simple average of 92 days of daily observations over the quarter ended 31 December 2018 for the majority of the group's balance sheet and a simple average of the three month-end data points for some Africa Regions banking entities which are not yet reported daily.

LIQ1: LIQUIDITY COVERAGE RATIO

	2018 ¹		2017 ²	
	Total unweighted ³ value (average) Rm	Total weighted ⁴ value (average) Rm	Total unweighted ³ value (average) Rm	Total weighted ⁴ value (average) Rm
HQLA				
Total HQLA		275 321		240 935
Retail deposits and deposits from small business customers, of which:				
Stable deposits	347 708	33 977	428 381	31 784
Less-stable deposits	15 881	794	14 425	721
331 827	33 183		413 956	31 063
Unsecured wholesale funding, of which:				
Operational deposits (all counterparties) and deposits in networks of cooperative banks	602 099	315 823	538 457	266 296
Non-operational deposits (all counterparties)	159 234	39 809	165 342	41 336
Unsecured debt	442 814	275 963	372 884	224 729
	51	51	231	231
Secured wholesale funding		110		2
Additional requirements:		64 618	25 220	107 747
Outflows related to derivative exposures and other collateral requirements	13 855	13 855	14 151	14 142
Outflows related to loss of funding on debt products	4 658	4 658	3 012	3 012
Credit and liquidity facilities	46 105	6 707	90 584	9 530
Other contractual funding obligations	5 848	5 848	2 273	2 273
Other contingent funding obligations	373 304	14 935	316 674	11 783
Cash outflows		395 913		338 822
Secured lending	31 467	16 659	22 799	15 349
Inflows from fully performing exposures	161 147	131 489	156 857	128 645
Other cash inflows	18 275	11 995	22 898	16 491
Cash inflows		160 143		160 485
	Total adjusted value⁵ Rm		Total adjusted value ⁵ Rm	
Total HQLA		275 321		240 935
Total net cash outflows		235 770		178 337
LCR (%)		116.8		135.1

¹ Simple average of 92 days of daily observations over the quarter ended 31 December 2018 for SBSA, SBSA Isle of Man branch, Stanbic Bank Ghana, Stanbic Bank Uganda, Standard Bank Namibia, Stanbic IBTC Bank Nigeria, Standard Bank Isle of Man Limited and Standard Bank Jersey Limited and the simple average of three month-end data points ended 31 December 2018 for the other Africa Regions banking entities.

² Simple average of 92 days of daily observations over the quarter ended 31 December 2017 for SBSA, SBSA Isle of Man branch, Stanbic Bank Ghana, Stanbic Bank Uganda, Standard Bank Isle of Man Limited and Standard Bank Jersey Limited and the simple average of three month-end data points ended 31 December 2017 for the other Africa Regions banking entities.

³ Unweighted value represents the outstanding balances maturing or callable within 30 days (for inflows and outflows).

⁴ Total weighted value is calculated after the application of respective haircuts (for HQLA) or inflow and outflow rates (for inflows and outflows).

⁵ Adjusted value calculated after the application of both (i) haircuts and inflow and outflow rates; and (ii) any applicable caps (i.e. cap on level 2B and level 2 assets for HQLA and cap on inflows).



The group seeks to exceed the minimum LCR requirement with a sufficient buffer to allow for funding flow volatility as determined by its internal liquidity risk appetite. A buffer is maintained above the minimum regulatory requirement to cater for balance sheet and market volatility.

Total contingent liquidity

Portfolios of marketable and liquid instruments to meet regulatory and internal stress testing requirements are maintained as protection against unforeseen disruptions in cash flows. These portfolios are managed within ALCO-defined limits on the basis of diversification and liquidity.

The table that follows provides a breakdown of the group's liquid and marketable instruments as at 31 December 2018 and 31 December 2017. Eligible Basel III LCR HQLA are defined according to the BCBS January 2013 LCR and liquidity risk monitoring tools framework. Managed liquidity represents unencumbered marketable instruments other than eligible Basel III LCR HQLA (excluding trading assets) which would be able to provide sources of liquidity in a stress scenario.

TOTAL CONTINGENT LIQUIDITY

	2018 Rbn	2017 Rbn
Eligible LCR HQLA¹ comprising:	301.3	251.3
Notes and coins	20.3	18.3
Balances with central banks	42.6	38.8
Government bonds and bills	194.4	149.1
Other eligible assets	44.0	45.1
Managed liquidity	83.8	71.0
Total contingent liquidity	385.1	322.3
Total contingent liquidity as a % of funding-related liabilities (%)	27.6	25.2

¹ Eligible LCR HQLA considers any liquid transfer restrictions that will inhibit the transfer across jurisdictions.

Liquid assets held remain adequate to meet all internal stress testing and regulatory requirements.

Structural liquidity requirements

Net stable funding ratio

The Basel III NSFR became effective on 1 January 2018 with the objective to promote funding stability and resilience in the banking sector by requiring banks to maintain a stable funding profile in relation to the composition of its assets and off-balance sheet activities. The ASF is defined as the portion of capital and liabilities expected to be reliable over the one-year time horizon considered by the NSFR. The amount of RSF is a function of the liquidity characteristics and residual maturities of the various assets (including off-balance sheet exposures) held by the bank. By ensuring that banks do not embark on excessive maturity transformation that is not sustainable, the NSFR is intended to reduce the likelihood that disruptions to a bank's funding sources would erode its liquidity position, increase its risk of failure and potentially lead to broader systemic risk.

Only banking and/or deposit taking entities are included and the group data represents a consolidation of the relevant individual assets, liabilities and off-balance sheet items as at 31 December 2018.

LIQ2: NET STABLE FUNDING RATIO

2018	Unweighted value by residual maturity				
	No maturity Rm	<6 months Rm	6 months to <1 year Rm	≥1 year Rm	Weighted value Rm
ASF item					
Capital:					
Regulatory capital	134 551	269	4 758	18 815	155 839
Other capital instruments	131 254 3 297	269	4 758	15 663 3 152	146 917 8 922
Retail deposits and deposits from small business customers:	201 230	197 985	9 101	12 388	380 702
Stable deposits	16 261	334			15 766
Less-stable deposits	184 969	197 651	9 101	12 388	364 936
Wholesale funding:	313 168	468 624	64 684	159 079	489 304
Operational deposits	131 265	30 952			81 108
Other wholesale funding	181 903	437 672	64 684	159 079	408 196
Liabilities with matching interdependent assets	36 149	4 194			36 494
Other liabilities:					44 516
NSFR derivative liabilities			7 611		
All other liabilities and equity not included in the above categories	36 149	4 194			36 494
					44 516
Total ASF					1 070 361
RSF item					
Total NSFR HQLA					27 727
Deposits held at other financial institutions for operational purposes					
Performing loans and securities:	900 11 587	310 648	88 076	773 052	135 755 459
Performing loans to financial institutions secured by level 1 HQLA		20 953		1 989	4 084
Performing loans to financial institutions secured by non-level 1 HQLA and unsecured performing loans to financial institutions	4	152 959	19 088	29 489	61 978
Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:	14	119 616	55 255	424 473	448 245
With a risk-weight of less than or equal to 35% under the Basel II standardised approach for credit risk		40 984	10 692	53 399	71 227
With a risk-weight of less than or equal to 35% under the Basel II standardised approach for credit risk	6 339	5 872	282 689		192 748
With a risk-weight of less than or equal to 35% under the Basel II standardised approach for credit risk		6 030	5 613	268 217	180 163
Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	11 569	10 781	7 861	34 412	48 404
Assets with matching interdependent liabilities	47 606	59 422		50 110	102 266
Other assets:					
Physical traded commodities, including gold	4				3
Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs		3 024 7 870			2 571 579
NSFR derivative assets		12 696			1 272
NSFR derivative liabilities before deduction of variation margin posted	47 602	59 422		50 110	97 841
All other assets not included in the above categories			375 812		16 605
Off-balance sheet items					
Total RSF					902 192
NSFR (%)					118.6



3Q18 ¹	Unweighted value by residual maturity				
	No maturity Rm	<6 months Rm	6 months to <1 year Rm	≥1 year Rm	Weighted value Rm
ASF item					
Capital:					
Regulatory capital	131 070	296	2 002	18 395	150 569
Other capital instruments	127 773			13 597	141 370
3 297	296		2 002	4 798	9 199
Retail deposits and deposits from small business customers:					
Stable deposits	181 186	208 328	9 239	11 546	371 236
Less-stable deposits	16 009	231			15 428
165 177	208 097	9 239		11 546	355 808
Wholesale funding:					
Operational deposits	311 027	366 939	85 768	153 632	477 330
Other wholesale funding	129 835	29 734			79 785
181 192	337 205	85 768		153 632	397 545
Liabilities with matching interdependent assets					
Other liabilities:					
NSFR derivative liabilities	40 482	52 856	3 137	51 376	66 125
All other liabilities and equity not included in the above categories			8 708		
	40 482	52 856	3 137	51 376	66 125
Total ASF					1 065 260
RSF item					
Total NSFR HQLA					26 279
Deposits held at other financial institutions for operational purposes					
1 448	54				244
12 232	314 525	86 580	740 573		738 158
Performing loans and securities:					
Performing loans to financial institutions secured by level 1 HQLA		7 760	201	1 186	2 062
Performing loans to financial institutions secured by non-level 1 HQLA and unsecured performing loans to financial institutions	4	157 080	22 453	21 584	56 644
Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:					
With a risk-weight of less than or equal to 35% under the Basel II standardised approach for credit risk	21	131 768	50 546	414 213	445 913
With a risk-weight of less than or equal to 35% under the Basel II standardised approach for credit risk		45 266	10 376	51 608	71 688
Performing residential mortgages, of which:		6 869	5 332	276 791	190 837
With a risk-weight of less than or equal to 35% under the Basel II standardised approach for credit risk		6 559	5 081	262 831	178 691
Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	12 207	11 048	8 048	26 799	42 702
Assets with matching interdependent liabilities					
Other assets:					
Physical traded commodities, including gold	45 154	61 852		51 600	102 270
Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs	3				3
NSFR derivative assets		4 271			3 631
NSFR derivative liabilities before deduction of variation margin posted		8 795			41
All other assets not included in the above categories		16 297			1 632
Off-balance sheet items		344 101			14 991
Total RSF					881 942
NSFR (%)					120.8

¹ In line with Basel pillar 3 requirements, the comparative period shown for LIQ2 is 3Q18.

The group maintained NSFR compliance in excess of the 100% regulatory requirement and operates above risk appetite and management internal buffer requirements.

Funding activities

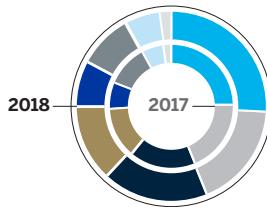
Funding markets are evaluated on an ongoing basis to ensure appropriate group funding strategies are executed depending on the market, competitive and regulatory environment. The group continues to focus on building its deposit base as a key component of the group's funding mix. Deposits sourced from SA and other major jurisdictions in the Africa Regions, Isle of Man and Jersey provide diversity of stable funding sources for the group.

Primary funding sources are in the form of deposits across a spectrum of retail and wholesale clients, as well as loan and debt capital markets across the group. Total funding-related liabilities increased from R1 277 billion as at 31 December 2017 to R1 393 billion as at 31 December 2018.

FUNDING DIVERSIFICATION BY PRODUCT

Concentration risk limits are used within the group to ensure that funding diversification is maintained across products, sectors, geographic regions and counterparties.

Funding diversification by product (%)



	2018	2017
Call deposits	26	25
Term deposits	18	19
Current accounts	18	17
Cash management deposits	13	13
Deposits from banks and central banks	8	7
Negotiable certificates of deposits	9	11
Senior and subordinated debt	6	6
Savings account	2	2

FUNDING-RELATED LIABILITIES COMPOSITION¹

	2018 Rbn	2017 Rbn
Corporate funding	418	391
Retail deposits ²	378	343
Institutional funding	305	296
Interbank funding	88	60
Government and parastatals	86	72
Senior debt	59	58
Term loan funding	29	32
Subordinated debt issued	21	19
Other liabilities to the public	9	6
Total funding-related liabilities	1 393	1 277

¹ Composition aligned to Basel III liquidity classifications.

² Comprises individual and small business customers.

DEPOSITOR CONCENTRATION

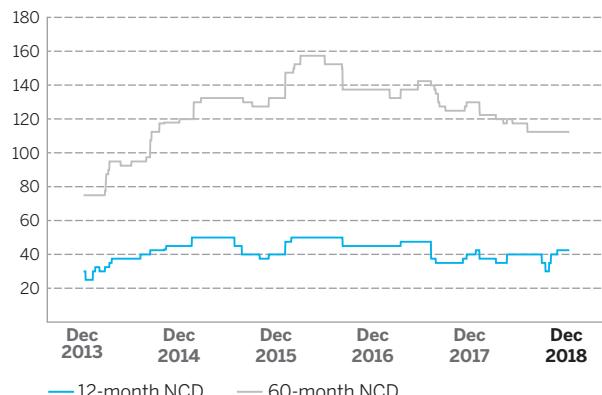
	2018 %	2017 %
Single depositor (limit 10%)	2.2	1.7
Top ten depositors (limit 20%)	7.9	7.6

A component of the group's funding strategy is to ensure that sufficient contractual term funding is raised in support of term lending and to ensure adherence to the structural mismatch tolerance limits and appetite guidelines.

The group successfully increased long-term funding in excess of 12 months, raising R28.3 billion through a combination of negotiable certificates of deposits (NCD), senior debt and syndicated loans. The group issued R5.0 billion of Basel III compliant Tier II notes in 2018, the proceeds of which have been invested in SBSA on the same terms and conditions as those applicable to the Tier II notes in SBG.

The graph that follows is a representation of the market cost of liquidity, which is measured as the spread paid on NCDs relative to the prevailing reference rate. The graph is based on actively issued money market instruments by banks, namely 12- and 60-month NCDs. The cost of liquidity reduced by 22.5 bps in the 60-month tenor, driven by tighter clearing spreads recorded in the NCD and senior debt market. This was driven by continued limited supply of high-quality corporate credit issuance into capital markets. The cost of liquidity in money markets measured by the 12-month NCD recorded an increase of 7.5 bps over the 12-month period.

SBSA 12- and 60-month liquidity spread (bps)





The group's credit ratings

The group's ability to access funding at cost-effective levels is dependent on maintaining or improving the borrowing entity's credit rating.

The following table provides a summary of the major credit ratings for the group and its principal operating subsidiary, SBSA as at 31 December 2018.

Long-term	Fitch
Group foreign currency issuer default rating	BB+
SBSA foreign currency issuer default rating	BB+
SA sovereign foreign currency issuer default rating	BB+
Long-term	Moody's
Group issuer rating	Ba1
SBSA foreign currency deposit rating	Baa3
SA sovereign foreign currency rating	Baa3

Credit ratings for SBSA are dependent on multiple factors, including the SA sovereign rating, capital adequacy levels, quality of earnings, credit exposure, the credit risk governance framework and funding diversification. These parameters and their possible impact on the borrowing entity's credit rating are monitored closely and incorporated into the group's liquidity risk management and contingency planning considerations.

The group continues to monitor the implications of further SA sovereign credit rating agency downgrades for both local and foreign currency which could still have a significant impact on the group's access to, and cost of, foreign currency liquidity sources.

A rating downgrade would reduce the thresholds above which collateral must be posted with counterparties to cover the group's negative mark-to-market on derivative contracts. These are managed within the liquidity management pillar. The potential cumulative impact on additional collateral requirements is contained in the table that follows.

1, 2 AND 3 NOTCH RATING DOWNGRADES

	2018 Rm	2017 Rm
Impact on the group's liquidity of a collateral call linked to downgrading by		
1 notch	72	430
2 notch	72	430
3 notch	72	430

Conduits

The group provides a standby liquidity facility to Thekwini Warehouse Conduit.

This facility, which totalled R2.4 billion in 2018 (2017: R4.9 billion), has not been drawn on.

The liquidity risk associated with this facility is managed in accordance with the group's overall liquidity position and represents less than 2% of the group's total liquidity (2017: 2%). The liquidity facility is included in the group's balance sheet, as well as in liquidity risk stress testing.

INSURANCE OPERATIONS

Long-term insurance

 AFS | Refer to Annexure C of the AFS for Liberty's liquidity risk disclosures.

Short-term insurance

SIL's investments are made considering the nature, term and uncertainty of its liabilities. SIL manages its liquidity risk in accordance with its RAS. This covers monitoring available liquid assets against immediate expenses such as operational expenses, technical provisions for claims outstanding and any outstanding reinsurance premium. SIL also includes the impact of unexpected losses from several catastrophic events in its liquidity risk management. SIL manages liquidity risk on a stand-alone basis such that no reliance is placed on the group to provide contingent funding to the insurance entity.

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Market risk



BANKING OPERATIONS

Approved regulatory capital approaches

The group has approval from the SARB to adopt the internal models approach for most asset classes and across most market variables in SBSA with the balance on the standardised model.

For material equity portfolios, the group has approval from the SARB to adopt either the market-based or PD/LGD approach.

There are no regulatory capital requirements for IRRBB, structural foreign exchange exposures or own equity-linked transactions. The group does not apply the incremental risk charge or comprehensive risk capital charge approach.

Governance

The governance management level committee overseeing market risk is group ALCO.

The principal governance documents are the market risk governance standard and the model risk governance framework. The group's key market risks are:

- trading book market risk
- IRRBB*
- equity risk in the banking book*
- foreign currency risk*
- own equity-linked transactions*
- post-employment obligation risk.

 AFS | * Refer to Annexure C of the group's AFS for these disclosures.

Trading book market risk

Definition

Trading book market risk is represented by financial instruments, including commodities, held in the trading book, arising out of normal global markets' trading activity.

MR1: MARKET RISK UNDER STANDARDISED APPROACH

	2018 RWA Rm	2017 RWA Rm
Outright products		
Interest rate risk (general and specific)	49 555	45 651
Equity risk (general and specific)	47 393	44 188
Foreign exchange risk	198	30
Commodity risk	1 761	1 384
	203	49
Options		
Delta-plus method	7 090	1 566
Total	56 645	47 217
	OV1	OV1

MR2: RWA FLOW STATEMENTS OF MARKET RISK EXPOSURES UNDER IMA

	2018			2017		
	VaR Rm	SVaR Rm	Total RWA Rm	VaR Rm	SVaR Rm	Total RWA Rm
RWA at beginning of reporting period	4 346	8 458	12 804	8 610	9 423	18 033
Movement in risk levels	692	261	953	(4 264)	(965)	(5 229)
Model updates/changes	77		77			
RWA at end of reporting period	5 115	8 719	13 834	4 346	8 458	12 804
			OV1			OV1

Approach to managing market risk in the trading book

The group's policy is that all trading activities are undertaken within the group's global markets' operations.

The market risk functions are independent of the group's trading operations and are accountable to the relevant legal entity ALCOs. ALCOs have a reporting line into group ALCO, a subcommittee of GROC.

All VaR and SVaR limits require prior approval from the respective entity ALCOs. The market risk functions have the authority to set these limits at a lower level.

Exposures and excesses are monitored and reported daily. Where breaches in VaR or SVaR limits occur, actions are taken by market risk functions to bring exposures back in line with approved market risk appetite, with such breaches being reported to management and entity ALCOs.

Measurement

The techniques used to measure and control trading book market risk and trading volatility include VaR and SVaR, stop-loss triggers, stress tests, backtesting and specific business unit and product controls.

VaR and SVaR

The group uses the historical VaR and SVaR approach to quantify market risk under normal and stressed conditions.

For risk management purposes VaR is based on 251 days of unweighted recent historical data updated at least monthly, a holding period of one day and a confidence level of 95%. The historical VaR results are calculated in four steps:

- calculate 250 daily market price movements based on 251 days' historical data. Absolute movements are used for interest rates and volatility movements, relative for spot, equities, credit spreads, and commodity prices
- calculate hypothetical daily profit or loss for each day using these daily market price movements
- aggregate all hypothetical profits or losses for day one across all positions, giving daily hypothetical profit or loss, and then repeat for all other days
- VaR is the 95th percentile selected from the 250 days of daily hypothetical total profit or loss.

Daily losses exceeding the VaR are likely to occur, on average, 13 times in every 250 days.

SVaR uses a similar methodology to VaR, but is based on an 251-day period of financial stress which is reviewed quarterly and assumes a ten-day holding period and a worst case loss. The ten-day period is based on the average expected time to reduce positions. The period of stress for SBSA is currently the 2008/2009 financial crises while, for other markets, more recent stress periods are used.

Where the group has received internal model approval, the market risk regulatory capital requirement is based on VaR and SVaR, both of which use a confidence level of 99% and a ten-day holding period.

Limitations of historical VaR are acknowledged globally and include:

- the use of historical data as a proxy for estimating future events may not encompass all potential events, particularly those which are extreme in nature
- the use of a one-day holding period assumes that all positions can be liquidated or the risk offset in one day. This will usually not fully reflect the market risk arising at times of severe illiquidity, when a one-day holding period may be insufficient to liquidate or hedge all positions fully
- the use of a 95% confidence level, by definition, does not take into account losses that might occur beyond this level of confidence.

VaR is calculated on the basis of exposures outstanding at the close of business and, therefore, does not necessarily reflect intra-day exposures. VaR is unlikely to reflect loss potential on exposures that only arise under significant market movements.

Trading book issuer risk

Equity and credit issuer risk is assumed in the trading book by virtue of normal trading activity, and is managed according to the group's market risk governance standard. These exposures arise from, among others, trading in equities, debt securities issued by corporate and government entities, as well as trading credit derivative transactions with other banks and corporate clients.

The credit spread and equity issuer risk is incorporated into the daily price movements used to compute VaR and SVaR mentioned above for issuer risk and transactions that incorporate material counterparty value adjustments and debit value adjustments.

The VaR models used for credit spread and equity issuer risk are only intended to capture the risk presented by historical day-to-day market movements, and, therefore, do not take into



account instantaneous or jump to default risk. Issuer risk is incorporated in the standardised approach interest rate risk charge for SBSA and African entities. Excluding local currency government debt held by each legal entity, the largest issuer exposure was R16.4 billion (2017: R17.1 billion).

Stop-loss triggers

Stop-loss triggers are used to protect the profitability of the trading desk, and are monitored by market risk on a daily basis. The triggers constrain cumulative or daily trading losses through acting as a prompt to review or close-out positions.

Stress tests

Stress testing provides an indication of the potential losses that could occur under extreme but plausible market conditions, including where longer holding periods may be required to exit positions. Stress tests comprise individual market risk factor testing, combinations of market factors per trading desk and combinations of trading desks using a range of historical, hypothetical and Monte Carlo simulations. Daily losses experienced during the period under review did not exceed the maximum tolerable losses as represented by the group's stress scenario limits.

Backtesting

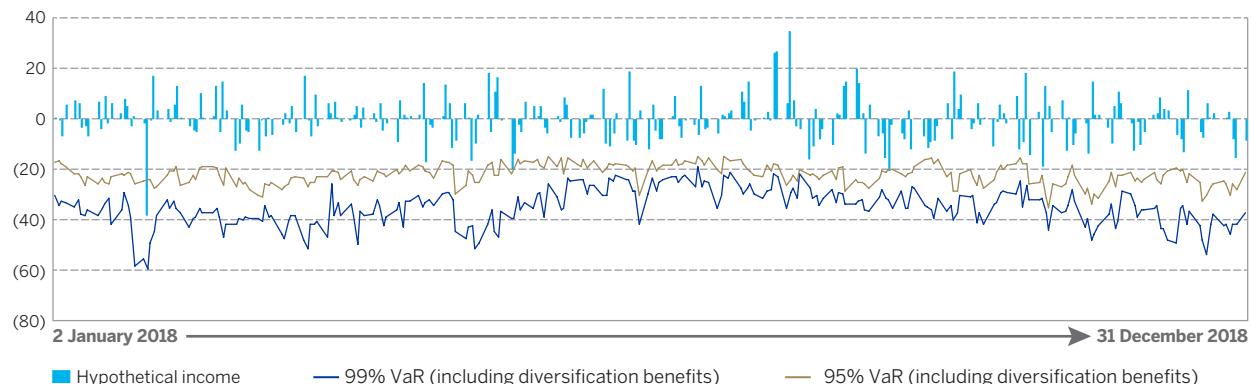
The group backtests its VaR models to verify the predictive ability of the VaR calculations and ensure the appropriateness of the models within the inherent limitations of VaR.

Backtesting compares the daily hypothetical profits and losses under the one-day buy and hold assumption to the prior day's calculated VaR. In addition, VaR is tested by changing various model parameters, such as confidence intervals and observation periods to test the effectiveness of hedges and risk-mitigation instruments. The results of the group's backtesting for 2018 is shown in the graph below.

Regulators categorise a VaR model as green, amber or red and assign regulatory capital multipliers based on this categorisation. A green model is consistent with a satisfactory VaR model and is achieved for models that have four or less backtesting exceptions in a 12-month period at 99% VaR. All of the group's approved models were assigned a green status for the period under review (2017: green).

Two exceptions occurred in 2018 (2017: five) for 95% VaR and no exceptions (2017: one) for 99% VaR.

MR4: Backtesting – comparison of VaR and hypothetical income of trading units (Rm)



Specific business unit and product controls

Other market risk limits and controls specific to individual business units include permissible instruments, concentration of exposures, gap limits, maximum tenor, stop-loss triggers, price validation and balance sheet substantiation.

Trading book portfolio characteristics

VaR for the period under review

Trading book market risk exposures arise mainly from residual exposures from client transactions and limited trading for the group's own account. In general, the group's trading desks have run slightly lower levels of market risk throughout 2018 when compared to 2017 aggregate normal VaR, and similar levels when compared to aggregate SVaR.

MR3: IMA VALUES FOR TRADING PORTFOLIOS

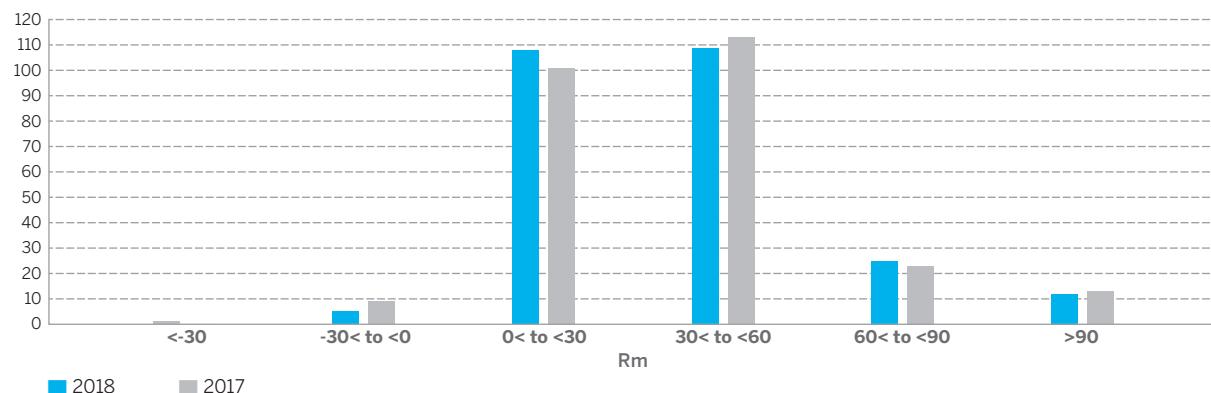
	2018 Rm	2017 Rm
VaR (ten day 99%)		
Maximum value	170	278
Average value	96	135
Minimum value	45	57
Period end	98	63
SVaR (ten day 99%)		
Maximum value	345	361
Average value	179	207
Minimum value	103	78
Period end	255	201

Analysis of trading profit

The graph that follows shows the distribution of daily trading income for the period ended 31 December 2018 for portfolios with material VaR limits. It captures trading volatility and shows the number of days in which the group's trading-related revenues fell within particular ranges. The distribution is skewed favourably to the profit side.

For the period under review, trading profit was positive for 253 out of 259 days (2017: 250 out of 259 days) on an aggregated global basis.

Distribution of daily trading income (frequency of days)



Post-employment obligation risk

The group operates both defined contribution plans and defined benefit plans, with the majority of its employees participating in defined contribution plans. The group's defined benefit pension and healthcare provider schemes for past and certain current employees create post-employment obligations. Post-employment obligation risk arises from the requirement to contribute as an employer to an under-funded defined benefit plan.

The group mitigates these risks through independent asset managers and independent asset and liability management advisors for material funds. Potential residual risks which may impact the group are managed within the group asset and liability management process.

 **AFS** | Refer to note 44 in the AFS for more detail on the group's post-employment obligation risk.

INSURANCE OPERATIONS

Long-term insurance

For management purposes, Liberty's market risk is split into the following three categories:

- market risks to which Liberty wishes to maintain exposure on a long-term strategic basis. These include market risks arising from assets within the shareholder investment portfolio
- market risks to which Liberty does not wish to maintain exposure to on a long-term strategic basis as they are not expected to provide an adequate return on economic capital over time, which may be mitigated, either through improved product design or through open market activity

- market risks to which Liberty does not wish to maintain exposure to but where Liberty is unable to adequately and/or economically mitigate these risks through hedging. In certain instances, these market risks are second order risks resulting from, for example, liquidity risks or reputational risks. While these risks cannot necessarily be hedged, they are identified, measured and monitored.

Liberty's shareholders are exposed to market risk arising predominantly from:

- the long-term policyholder asset/liability mismatch risk. This occurs if Liberty's property and financial assets do not move in the same direction or by the same magnitude as the obligations arising under its insurance and investment contracts despite the controls and hedging strategies employed
- exposure to management fee revenues not already recognised in the negative rand reserves
- financial assets forming Liberty's capital base (also referred to as shareholders' equity), including currency risks on capital invested outside SA
- financial assets held to back liabilities other than long-term policyholder liabilities.

The market risk associated with assets backing long-term policyholder investment-linked liabilities, including discretionary participation features liabilities is largely borne by the policyholders.

However, poor performance on policyholder funds can lead to reputational damage and subsequently, to increased policyholder withdrawals and a reduction in new business volumes.



Shareholder investment portfolio

Liberty recognises the importance of investing its capital base, namely the shareholder funds, in a diversified portfolio of financial assets.

The Liberty board approves the long-term asset mix of the portfolio. The long-term asset mix, also known as the strategic asset allocation is defined on a through-the-cycle basis and aims to maximise after-tax returns for a level of risk consistent with the group's RAS. In determining the strategic asset allocation, consideration is given to the risk capacity already utilised by Liberty's core business activities, as well as to liquidity, regulatory and/or operational constraints. The strategic asset allocation is overlaid with a tactical asset allocation which allows for some dynamic management of the investment portfolio.

A dedicated first line function is responsible for implementing the investment strategy and monitoring performance with oversight from group risk functions and ultimately the Liberty board. The implementation of the investment strategy is in part achieved through the mandating of Liberty Holdings Limited's subsidiary STANLIB and other asset managers. Tactical asset allocation is primarily performed by STANLIB within a mandate approved by the Liberty board.

The typical asset classes included in this portfolio are equities, fixed income, property and cash, both in local and foreign currency. Allocations are also made to alternative asset classes in search of yield and diversification benefits. As a result, the portfolio is exposed to currency movements, as well as market movements in the underlying asset classes.

In the short-term, market movements may contribute to some earnings volatility. The diversified nature of the portfolio should, however, serve to reduce the overall impact on earnings.

Asset liability management portfolio

Liberty has chosen to mitigate a number of market risk exposures, arising from asset/liability mismatches, to which it does not wish to be exposed to on a long-term strategic basis.

The decision to hedge these risks is based on the following factors:

- continuing assessment that these market risks may result in Liberty operating outside of its risk appetite
- there is a liquid and tradable market in which to hedge these market risks
- these market risks are capital intensive and over time have the potential to reduce shareholders' returns on capital unless actively managed
- some of the risks (for instance, those which arise from selling investment guarantees) are asymmetric in nature, and could compromise Liberty's solvency in severe market conditions.

Risk mitigation is achieved through a dynamic hedging programme. The hedging programme aims to manage the risks within Liberty's agreed risk appetite framework through the use of best practice market risk management techniques.

The exposures which are included in this hedging programme include the following:

- embedded derivatives provided in contracted policies, for example, minimum investment return guarantees and guaranteed annuity options
- the interest rate exposure introduced primarily as a result of writing guaranteed immediate annuities, deferred annuities and guaranteed investment plans
- guaranteed index trackers
- negative rand reserves.

These risks are managed in the asset and liability management portfolio using a variety of hedging instruments available in the market.

In some instances, reducing exposure to undesirable risks may result in increased exposure to other risks. In addition to this, as the risk appetite limits cover different dimensions, hedging activity may in certain cases mitigate risk in one dimension while resulting in increased risk in others. In recognition of these unintended consequences, the impact of hedging decisions is assessed across all dimensions prior to transacting. Post-transacting, hedge effectiveness is monitored closely by Liberty's market risk team.

The nature of the existing business results in certain risks being difficult to hedge, such as long-dated implied volatility exposures, movements in long-dated interest rates and correlation risks. It is not possible to entirely hedge these risks and, hence, some residual unhedged risks and associated volatility remain. In such instances limits are imposed on the magnitude of risk accepted. In addition, capital is held against unhedgeable risks.

Foreign currency risk

Offshore assets are held in policyholders' portfolios to match the corresponding liabilities. Liberty is exposed to currency risk through minimum investment return guarantees issued on contracts invested in offshore portfolios and related mismatches, as well as through the 90/10 fee exposure and management fees. In addition, some of the shareholder capital base is invested in offshore assets, including subsidiaries in the Africa Regions.

Investment guarantees have not been offered on new business invested in offshore portfolios since 2005. The rand-denominated value of management fees derived from these contracts is subject to currency risk. Strengthening of the rand against the offshore currencies reduces the rand value of management fees on offshore portfolios and increases the liability in respect of rand-denominated minimum investment return guarantees on this business. The weakening of the rand will have the opposite effect.

The gross exposure to foreign-denominated financial instruments expressed in rand (converted at closing rates) as at 31 December 2018 is R70.1 billion (2017: R74.6 billion). It is not practical to isolate foreign currency assets contained within rand-denominated mutual funds (which are not subsidiaries) and investment policies.

Property market risk

Liberty is exposed to tenant default, depressed rental markets and unlet space within its investment property portfolio affecting property values and rental income. The managed diversity of the property portfolio and the existence of multi-tenanted buildings significantly reduce the exposure to this risk. As at 31 December 2018, the proportion of unlet space in the property portfolio was 4% (2017: 7%).

Property market risk also arises with respect to shareholder exposures to investment guarantees and negative rand reserves, as well as through the shareholder investment portfolio.

Derivative financial instruments and risk mitigation

Certain Liberty entities are party to contracts for derivative financial instruments, mainly entered into as part of the dynamic hedging strategy used to manage asset-liability mismatches and to facilitate investment portfolio optimisation. Instruments used to mitigate risks such as equity, interest rate and currency risk include vanilla futures, options, swaps, swaptions and forward exchange contracts.

Derivative financial instruments give rise to credit default and operational risk, both of which are managed appropriately.

Derivative instruments are either traded on a regulated exchange, for example, the South African Futures Exchange (SAFEX), or negotiated over-the-counter (OTC) as a direct arrangement between two counterparties. Instruments traded on SAFEX are margined and SAFEX is the counterparty to each and every transaction. OTC instruments are only entered into with appropriately approved counterparties and are entered into in terms of signed ISDAs and collateral support agreements with each counterparty.

Short-term insurance

Market risk arises from investments in cash, corporate money market and collective investment schemes. It is not as material for the short-term insurance business as it is in the group context due to the nature of SIL's liabilities, where larger portions of investments are in cash and bond-type investments.

Management of the investment portfolio is outsourced to investment managers within the group, with target returns, portfolio limits and capital preservation requirements specified in the mandate. The mandate and performance of investments relative to the insurance entity's budget and risk appetite is reviewed and monitored by the insurance entity's investment committee.

Insurance risk

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OVERVIEW

Insurance risk arises due to uncertainty regarding the timing and amount of future cash flows from insurance contracts. This could be due to variations in mortality, morbidity, policyholder behaviour or expense experience in the case of life products, and claims incidence, claim severity or expense experience in the case of short-term insurance products.

Insurance risk applies to the long-term insurance operations housed in Liberty and the short-term insurance operations housed in Liberty and SIL.

LONG-TERM INSURANCE RISK

Overview

The management and staff in all business units accepting insurance risk are responsible for the day-to-day identification, analysis, pricing, monitoring and management of insurance risk. It is also management's responsibility to report any material insurance risks, risk events and issues identified to senior management through certain predefined escalation procedures.

Liberty's head of actuarial control function, statutory actuaries (where applicable) and its insurance risk department provide independent oversight of compliance with Liberty's risk management policies and procedures, and the effectiveness of Liberty's insurance risk management processes.

Approach to managing long-term insurance risks

Risk management takes place prior to the acceptance of risks through product development, pricing processes and at the point of sale. Risks continue to be managed through the measurement, monitoring and treatment of risks once the risks are contracted.

Risk management through product development, pricing and at the point of sale

The product development and pricing process defines the terms and conditions on which Liberty is willing to accept risks. Once a policy has been sold, Liberty is placed on risk for the duration of the contract and cannot unilaterally change the terms and conditions of the policy except where the policy allows for rate reviews. It is for these reasons that risks need to be carefully assessed and appropriately mitigated before a product is launched and before new policies are accepted onto Liberty's balance sheet. The product development and approval process ensures that:

- customers' needs and expectations will be met by the product
- risks inherent in new products are identified and quantified
- sensitivity tests are performed to enhance the understanding of the risks and appropriateness of mitigating actions
- pricing is adequate for the risk undertaken
- product design takes account of various factors, including the size and timing of fees and charges, appropriate levels of minimum premiums, commission structures and policy terms and conditions
- Liberty makes use of reinsurance to reduce its exposures to some insurance risks
- the controls required to provide the product within risk appetite are identified and established

- post-implementation reviews are performed to ensure that intended outcomes are realised and to determine if any further action is required.

Risk management post-implementation of products and of in-force policies

The ongoing management of insurance risk, once the risk has been contracted, includes the management of costs, premium adjustments where permitted and appropriate, management strategies and training of sales staff to encourage customers to retain their policies, and careful follow up on disability claims and annuitant deaths.

Experience investigations are conducted at least annually on all significant insurance risks to ascertain the extent of deviations from assumptions and their financial impacts. If the investigations indicate that these deviations are likely to persist in future, the assumptions will be adjusted accordingly for the subsequent measurement of policyholder contract values. Furthermore, any deviations that are likely to persist are also used to inform the product development and pricing of new and existing products.

Insurance risks are assessed and reviewed against Liberty's risk appetite and risk target. Mitigating actions are developed for any risks that fall outside of management's assessment of risk appetite in order to reduce the level of risk to within approved limits.

Long-term insurance risk subtypes

Policyholder behaviour risk

Policyholder behaviour risk is the risk of adverse financial impact caused by actual policyholders' behaviour deviating from expected policyholders' behaviour, mainly due to:

- regulatory and law changes (including taxation)
- changes in economic conditions
- competitor behaviour
- policy conditions and practices
- policyholders' perceptions.

Policyholder behaviour risk, in particular surrender and lapse risk, remains significant with the experience being volatile and linked in part to the economic cycle. This risk is managed through frequent monitoring of experience and actively driving retention initiatives in areas exhibiting deteriorating experience. A focus on being customer centric, including listening to customers to understand the drivers of the experience, enables appropriate actions to be taken.

Underwriting risks

The primary purpose of underwriting is to ensure that appropriate premium is charged for each risk and that cover is not offered to uninsurable risks. Underwriting risks are the risks that future demographic or claims incidence experience will exceed the allowance for expected demographic or claims incidence experience, as determined through provisions, pricing, risk measures and value measures. Underwriting risks include, among others, mortality and morbidity risks, longevity risks and non-life (short-term insurance) risks.

Liberty views these underwriting risks as risks that are core to their business. Liberty uses its specialist skills (with assistance from reinsurers where considered necessary) to enhance risk selection for the assessment, pricing and management of these



risks to generate favourable shareholder returns. These risks are diversified by exposure across many different lives, geographies, and product types and will generally be retained if they are within risk appetite.

Mortality and morbidity risk

Mortality risk is the risk of an adverse financial impact due to actual mortality (death) claims being higher than anticipated. Morbidity risk is the risk of an adverse financial impact due to policyholder health-related (disablement and dread disease) claims being higher than expected.

Liberty has a range of standard processes and procedures in place to manage mortality and morbidity risk, including differentiating by the individual characteristics, right of review of premiums, underwriting at inception, medical tests, and use of experienced reinsurers and claims assessors.

These risks will generally be retained. Mortality and morbidity risk give rise to significant capital requirements particularly due to potential catastrophic events. Since it is difficult to obtain reinsurance for certain catastrophic events on reasonable terms, the mortality and morbidity capital requirements are likely to remain significant.

Longevity risk

Longevity risk is the risk of an adverse financial impact due to actual annuitant mortality being lower than anticipated, that is, annuitants living longer than expected. For life annuities, the loss arises as a result of Liberty having undertaken to make regular payments to policyholders for their remaining lives, and possibly to the policyholders' spouses for their remaining lives.

The most significant risks on these liabilities are continued medical advances and improvements in social conditions that lead to longevity improvements being better than initially expected. Liberty manages the longevity risk by:

- annually monitoring the actual longevity experience and identifying trends over time
- making allowance for future mortality rates falling in the pricing of new business and the measurement of policyholder liabilities. This allowance will be based on the trends identified in experience investigations and external data
- regularly verifying annuitants are still alive.

Expense risk and new business risk

Expense risk is the risk of changes in future expense expectation from those assumed in the calculation of expected financial outcomes.

New business risk is the risk of an adverse financial impact due to the actual volume, mix and/or quality of new business deviating from that expected in calculating expected financial outcomes. New business strain is included in this risk type.

Allowance is made for expected future maintenance expenses in the measurement of long-term policyholder contract values using a cost per policy methodology. These expected expenses are dependent on estimates of the number of in-force and new

business policies. As a result, the risk of expense loss arises due to expenses increasing by more than expected, as well as from the number of in-force and/or new business policies being less than expected.

Liberty manages the expense and new business risk by:

- regularly monitoring actual expenses against the budgeted expenses
- regularly monitoring and managing new business volumes and mix
- regularly monitoring and managing withdrawal rates, including lapses
- implementing cost control measures in the event of expenses exceeding budget or of significant unplanned reductions in the number of in-force policies.

Even though expense risk does not give rise to large capital requirements, the management of expense risk is core to the business. The expenses that Liberty expects to incur on policies are allowed for in product pricing. If the expenses expected to be incurred are considerably higher than those of other insurers offering competing products, the ability to sell business on a profitable basis will be impaired. This not only has capital implications, but can also affect Liberty's ability to function as a going concern in the long term.

SHORT-TERM INSURANCE RISK

Overview

SIL writes mainly property, motor, accident and health insurance on a countrywide basis within SA. Approximately 66% of the total gross written premium is property insurance which indemnifies, subject to any limits or excesses, the policyholder against loss or damage to their own property and business interruption arising from this damage.

Liberty writes medical expense insurance through Total Health Trust Limited to government employees and corporate customers in Nigeria. Medical expense cover is also provided via the subsidiary Liberty Health Holdings (Pty) Limited, to customers in 22 African countries.

Approach to managing short-term insurance risk

Short-term insurance risk is managed through various control processes, including risk rating pricing, underwriting conditions, product design, efficient and effective claims management processes, fraud risk management and reinsurance controls.

The principal governance document is the group's short-term insurance risk governance standard. The insurance entity manages risk through the consideration of trigger conditions that result in the review of its risk strategy. This considers the nature, scale and complexity of the entity's risks. Risk appetite metrics and stress/scenario testing form part of risk management practices to better understand and manage the threats and opportunities the business faces.

Short-term insurance risk types

The underwriting strategy seeks diversity to ensure a balanced portfolio and is based on a large portfolio of similar risks over a large geographical area. This strategy is cascaded down to individual underwriters through detailed underwriting authorities that set out the limits that any one underwriter can write by line size, class of business, territory and industry in order to enforce appropriate risk selection within the portfolio.

The key risks associated with short-term insurance are underwriting risk, competitor risk and claims experience risk (including the variable incidence of natural disasters). Property is subject to a number of risks, including theft, fire, business interruptions and weather.

For property classes of business there is a significant geographical concentration of risk such that external factors, like adverse weather conditions, may adversely impact upon a large proportion of a particular geographical portion of the company's property risks. Claim inducing perils such as storms, floods, subsidence, fires, explosions and rising crime levels will occur on a regional basis, meaning that SIL has to manage its geographical risk dispersion carefully.

The greatest likelihood of significant losses to the group arises from catastrophic events such as flood, storm or earthquake damage, as well as large single risk events. To mitigate this risk, the insurance entity buys reinsurance across a diversified panel of multiple third-party reinsurers, each participating on different structures according to their own risk tolerance. Reinsurance protects the insurance entity from downside risk as a result of individual large claims, several accumulations of claims and catastrophic claims such as hail damage and earthquakes e.g. excess of loss reinsurance and catastrophe reinsurance.

Policyholder behaviour risk

Policyholder behaviour risk is the risk of loss arising due to actual policyholders discontinuing their insurance policies earlier or more frequently than expected. This may arise due to a change in economic conditions and/or inconsistent policy practices, regulatory and tax changes, selling practices and policyholder perceptions.

The primary policyholder behaviour risk is persistency risk, which arises due to policyholders cancelling insurance cover on short-term insurance business. This could lead to a reduction in premium income, an increase in the expense ratio and a reduction in the return on capital.

Short-term insurance operations are impacted by adverse economic conditions which could lead to lower new business take-up rates, higher than budgeted cancellation rates and fraud. New business and lapse rates are budgeted each year and monitored on a monthly basis. These rates are reported and compared to budget figures. The potential for fraudulent behaviour is also very high which is mitigated by internal fraud infrastructure and operations.

Catastrophe risk

The risk of adverse financial impact due to a single event or series of events of major magnitude, usually over a short period (often 72 hours), leads to a significant deviation in actual claims from the total expected claims.

Claims incidence risk

This is the risk of loss in excess of what has been priced for, arising from accident, fire and theft on short-term insurance business.

On certain types of business, for example, third-party liability claims, the claim distribution is longer tailed, meaning that the final cost of the claim is only known many years into the future. The risk is that the group reserves inadequately for this ultimate claims cost.

Expense risk

This is the risk of an adverse financial impact due to the timing and/or amount of expenses incurred, or both differing from those expected in administering policies, e.g. assumed in the pricing basis or actual cost per policy.

The expenses that the group is expected to incur on policies are allowed for in product pricing. If the expenses expected to be incurred are considerably higher than those of insurers offering competing products, the group's ability to sell business on a profitable basis will be restricted. This does not only have capital implications, but can also affect the group's short-term insurance operation's ability to function as a going concern in the long term.

New business risk

This is the risk of an adverse financial impact due to the actual volume and/or quality of new business deviating from the expected volume and/or quality.

Reinsurance credit risk

This is where a portion of risk is ceded to another insurer. The purpose of reinsurance is generally to reduce the fluctuations in experience in exchange for a premium paid to the reinsurer. A reinsurer becomes a creditor to the main insurer and payments due by reinsurers to the insurer are a credit risk to the insurer, who ultimately is liable for the claim payment to the policyholders.

Operational risk



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APPROACH TO MANAGING OPERATIONAL RISK

Operational risk exists in the natural course of business activity. The group's operational risk governance framework sets minimum standards for operational risk management adopted across the group. The purpose of operational risk management is not to eliminate all risks, which is not viable, but rather to enable management to weigh the payoff between risk and reward. The framework ensures that adequate and consistent governance is in place, guiding management to avoid unacceptable risks such as:

- breaking the law
- damaging the group's reputation

Operational risk subtypes are managed and overseen by specialist functions. These subtypes include:

Information risk is the risk of accidental or intentional unauthorised use, access, modification, disclosure, dissemination or destruction of information resources, which may compromise the confidentiality, integrity and availability of information and potentially harm the business.



Fraud risk is the unlawful and intentional misrepresentation with the aim of unlawful gain, which causes actual prejudice or which is potentially prejudicial to another.



Tax risk is the possibility of suffering unexpected loss, financial or otherwise, as a result of the application of tax systems, whether in legislative systems, rulings or practices, applicable to the entire spectrum of taxes and other fiscal imposts to which the group is subject.



Cyber risk may lead to financial loss or disruption, destruction, unauthorised or erroneous use of information systems.



Legal risk is the exposure to adverse consequences arising from non-compliance with legal or statutory responsibilities and/or legal rights not being binding or enforceable.



Model risk occurs when a financial model has potential weaknesses or performs inadequately in the measurement, pricing and management of risk. Weaknesses include incorrect assumptions, incomplete information, inaccurate implementation, limited model understanding, inappropriate use or inappropriate methodologies leading to incorrect conclusions by the user.



- disrupting services to customers
- willful conduct failures
- inappropriate market conduct
- knowingly breaching regulatory requirements
- causing environmental or social impacts.

The group's approach to managing operational risk is to adopt fit-for-purpose operational risk practices that assist line management in understanding their residual risk and managing their risk profile within risk appetite. The management of operational risk primarily resides in first line, supported by second line with dedicated centres of excellence. The group operational risk management function forms part of the second line of defence and is an independent area, reporting to the group CRO.

Environmental and social risk

Environmental risk is the threat of adverse effects on the natural environment through emissions, waste and resource depletion, and includes the threat to assets as a result of environmental impacts, such as extreme weather events. **Social risk** consists of risks to people, their livelihoods, health and welfare, socioeconomic development, social cohesion and the inability to adapt to changing circumstances.



Business disruption risk arises from critical system failures and/or business process failures impacting services to and/or provided by the group to its stakeholders.



People risk refers to the negative impacts associated with difficulties attracting and retaining skilled and committed people and failure to enable people to grow and remain relevant in a rapidly evolving world of work.



Technology risk is associated with the use, ownership, operation, involvement, influence and adoption of technology within the group. It consists of technology-related events and conditions that could potentially impact the business including technology changes, updates or alterations. A key consideration within technology risk is the group's effective use of technology to achieve business objectives and be competitive.



Third-party risk is introduced due to ineffective management of third-party relationships. The use of third parties reduces management's direct control of activities and may introduce new or increase existing risks, specifically, operational, compliance, reputation, strategic, and credit risks.



The following risk types are part of the extended operational risk taxonomy and are considered for capital allocation in the ICAAP process:

- compliance risk
- physical assets risk
- accounting and financial risk.



GOVERNANCE

The primary management level governance committee overseeing operational risk is the GORC which is a subcommittee of GROC. The primary governance document is the integrated operational risk governance framework.

Operational risk subtypes report to various governance committees and have governance documents applicable to each risk subtype.

APPROVED REGULATORY CAPITAL APPROACH

The group has approval from the SARB to use the AMA for SBSA and the standardised approach for all other legal entities. In 2017, the BCBS released the final regulations for the new standardised approach to be used for the calculation of operational risk regulatory capital, which is due to take effect from 1 January 2022. The group consults regularly with the banking industry and local regulator to ensure consistent and accurate implementation of the NSA.

The group will maintain its current approved regulatory capital approach until the transition date for the NSA. Alternative capital approaches, including calculation and allocation methodologies, to be used in a post-AMA regime will be explored. The NSA paper makes provisions for banks to apply to country regulators to remove losses that skew their data when calculating capital.

OPERATIONAL RISK SUBTYPES

Cyber risk

Cyber risk continues to be recognised as one of the most important risks to the group and its clients. Focus on developing capabilities that can reduce attacks and raise the cost to attackers continued throughout the year. The group continued to make strides in implementing its cyber-resilience strategy across all jurisdictions in which the group operates. The escalation in the scale and sophistication of cyber-attacks is amplified by the growing digitisation of businesses and the complexity of running ageing systems. The group is cognisant of the mounting risk posed by cyber-attacks and significant investments have been made to enhance security capabilities and accelerate strategic directives. Financial services remain the most targeted sector from a cyber-threat perspective and, consistent with this trend, a number of attempts were successfully mitigated without impact to the group's operations or customers. Many of these incidents were prevented as a direct result of the cyber-defence capabilities implemented over the last few years. It remains a challenge to implement frictionless controls to reduce the impact of cyber-crime and this will continue to be a focus in 2019.

Cyber-simulations were concluded in 16 countries, testing the preparedness of in-country teams to respond to large-scale cyber-incidents, with positive results.

The most significant incident of the year was the extortion attempt at Liberty Holdings, a subsidiary of the group. This was managed successfully with no material impact to clients.

The group has implemented additional security controls across all platforms and systems, including more robust customer registration processes and customer and staff authentication, real-time customer account monitoring at a transactional level and enhanced privileged user management controls. Cyber-readiness is increasingly focused towards strengthening people and process capability in addition to technology investment.

Information risk

The group strengthened information risk management in 2018, with delivery of a simplified information risk strategy and policy landscape, dedicated support teams and a hybrid of digital and traditional tool sets. Further enhancement of information management, implementation of controls and policy implementation will remain a focus area for 2019.

The group continues to focus on the identification and classification of information assets, as part of a broader information risk management focus within the enterprise data committee's programme. Demand for further support and advisory services continues to grow.

No material incidents were reported for this period, although the Liberty data breach received significant media coverage which resulted in reputational impact. The group responded swiftly to the incident and criminal activity was contained. Liberty took quick action to educate its customer base which provided an additional layer of defence against the attack.

The group continues to consider and act where industry and global incidents impact clients. The group endeavours to keep clients safe following such breaches, by understanding the extent to which the client is impacted and where applicable, taking preventative action to avoid future losses.

Fraud risk

The group upgraded its fraud risk management model enabling operational efficiencies and significantly improving the customer experience during a fraud incident. This resulted in a reduction in telephone interactions from 19 to one, a reduction in back office processes from 14 hand-offs to managing incidents at the first point of customer contact and a decrease in customer fraud claims turnaround times.

Card fraud remains a significant contributor to overall gross fraud losses. The use of cards as a payment mechanism for goods and services remains the preferred method of payment. Suppliers continue to migrate their sales platforms digitally which further exposes sensitive card data on these digital platforms. This migration coupled with the increase in card data breaches effectively results in higher card fraud losses. The group continues to invest in card fraud prevention and detection capabilities.

As the group migrates its content digitally, more features such as on-boarding, value transactions and payments are channelled through the group's internet banking and application platforms, and more customers favour these channels. Customers are vulnerable to phishing attacks, whereby criminals fraudulently access their banking information. Investment continues in anti-phishing and device profiling capabilities to frustrate fraudsters. The group has partnered with world-class anti-phishing experts to identify and shut down phishing sites masquerading as Standard Bank.

Impersonation fraud remains a significant contributor to application fraud. Fraudsters continue to fabricate supporting documents like employment, salary and identity documents to originate new accounts and credit facilities. The group is investing in enhanced customer authentication capabilities such as fingerprint biometrics and the ability to obtain supporting documents digitally versus paper-based submission, with the expectation that this will significantly reduce this fraud type.

The group has zero tolerance for employee misconduct and independently investigates such allegations. Employees are also provided with ongoing awareness and training and with

appropriate tools such as FraudStop and Whistleblowing hotline, for escalating and reporting misconduct anonymously.

Technology risk

In 2018 stability continued to improve with a significant decline in the volume of priority one incidents across the group. There were, however, two incidents of system instability in SA, and one in Namibia, which caused significant inconvenience to clients and reputational damage to the group. The reduction in incidents can be attributed to the continued focus on resilience. While the group has achieved marked improvement in system stability, this has been matched by heightened customer expectations of 'always on' systems.

To support delivery of the group's 2020 objectives, group IT launched the quantum shift strategy in 2018, and implemented associated changes to its operating model. The strategy prioritises client needs, and supports the journey to become a digital and agile organisation. The technology risk profile for the group is likely to continue facing pressure due to changes in business circumstances and the need to respond thereto. Interventions have been initiated to address the associated uncertainties including tactical risk mitigations and quarterly strategy implementation reviews.

The cloud computing journey gained substantial momentum in 2018. Cloud computing will be central to the group's IT infrastructure going forward. Risks associated with migration to the cloud are being carefully managed however the group regards cloud computing as a significant opportunity in addressing technology risk.

Model risk

Model risk is mitigated through the principles of fit-for-purpose governance, and maintaining a pool of skilled and experienced technical specialists and robust model-related processes. It is governed by the model risk governance framework, which defines model risk, the scope of models, documentation needs, model-materiality considerations, high-level model development requirements, validation requirements, usage and monitoring requirements, governance and approval processes, and the roles and responsibilities across the three lines of defence.

An annual self-assessment is completed to indicate compliance with the principles outlined in the framework.

Tax risk

The group's approach to managing tax risk is governed by the GAC through the tax risk control framework, which includes the tax strategy and governance standard, supported by policies dealing with specific aspects of tax risk such as transfer pricing, indirect taxes, withholding taxes and remuneration-related taxes.

In 2018, the group was exposed to transfer pricing risk, specifically in Africa Regions, with successful finalisation of the transfer pricing audit in Botswana. The value added tax rate change from 14% to 15% in SA was successfully implemented without resulting in additional tax risk.

A consistent approach to responding to transfer pricing queries was coordinated to mitigate exposure. An overarching tax risk management strategy implemented for Nigeria during 2018 reduced the tax risk substantially. The group will remain focused on managing the tax risk in Nigeria during 2019. Certain aspects of the Africa Regions tax calculations and consolidations have been automated to reduce manual intervention and resultant risk, with the remainder of the Africa Regions on-boarding during 2019.

Legal risk

The group has processes and controls in place to identify, manage and mitigate its legal risks. Generally, legal risk is managed in the first instance by lawyers in the group company concerned with oversight, coordination and training provided/facilitated by the group's legal teams. In matters where legal risk is considered material at a group level, the legal resources of the group are actively involved to assist the local legal teams in managing legal risk. The group's legal policies and standards are approved at group level and implemented in the Africa Regions by the local legal teams. Documentation templates are, when appropriate, standardised in the Africa Regions, as are the legal execution and delivery of products. In addition, where the group commences business in new geographies, the group legal teams provide more support while local legal capacity is added.

Initiatives in 2018 included implementing an electronic litigation management system to assist with oversight and management of litigation risk. Furthermore, a global project commenced in 2018 to assist in enabling simplified client documentation and to ensure a more client-centric approach which will be rolled out across the Africa Regions geographies. During 2019 the focus will be on the end-to-end implementation of these initiatives.

Environmental and social risk

The group is exposed to credit, operational, legal and reputational risk due to environmental and social impacts associated with lending activities. In 2018 concerns included the group's potential involvement in the financing of new coal-fired power plants, and an oil spillage due to internal pipe corrosion in the Niger Delta where lenders have commissioned an independent assessment to confirm the extent of damage and clean up undertaken by the operators. During 2019 enhanced environmental and social risk management procedures will be implemented in Business Banking and Wealth, inclusive of online environmental and social risk awareness training for targeted teams. A climate change and water strategy is being developed. Adoption of the group environmental and social risk standard and policy by all regions will be sought.



Business disruption risk

The group aims to be 'always on and always secure' to its customers. Disruptions to the business are managed through the group's BR capability. BR is a process that identifies potential operational disruptions and provides a basis of planning for the mitigation of the negative impact from such disruptions. In addition, it promotes operational resilience and ensures an effective response that safeguards the interests of both the group and its stakeholders. The group's BR governance standard encompasses emergency response preparedness and crisis management capabilities to manage the business through a crisis to full recovery. The group's BR capabilities are evaluated by testing business continuity plans and conducting crisis simulations.

BR maturity across the group has improved, as demonstrated via the number and quality of BR exercises and tests performed in 2018. There were no material business disruption breaches or exposures experienced in 2018. IT incidents experienced during the year were resolved as part of the business as usual IT incident management process, without invoking IT disaster recovery. Incidents were managed in line with crisis management plans.

Emphasis in 2019 is on improving the capability to anticipate and respond to disruptive incidents in a more integrated and agile manner. The traditional BR discipline and practices will be bolstered with more predictive and agile enablers. Priorities include the finalisation and implementation of the new BR governance standard and policy throughout the group, improving use of the business continuity management tool, and exercising and testing emergency management response.

Third-party risk

Third-party risk continues to evolve in importance, due to reliance on third-parties to provide services critical to the group's operations. Third-party relationships may increase the group's exposure to operational risk because the group may not have direct control of the activity performed by the third-party. Failure to manage these third-party risks can expose an institution to regulatory sanction, financial loss, litigation and reputational damage, and may impair the group's ability to deliver to its customers.

The risk is governed by the third-party risk framework, approved during 2018. This framework is underpinned by the implementation of a fit-for-purpose operating model, which is aligned to the organisation's risk culture and considers appropriate levels of accountability and responsibility across the group.

People risk

People risk is tracked and monitored through employee engagements. In 2018 a range of reward and recognition initiatives were introduced to support customer centricity, retaining top talent and ensuring sustainable long-term performance. The introduction of a new performance management philosophy and approach that drives regular line manager coaching supporting personal improvement, growth and business contribution, enabled employees to have full control of their organisational relevance.

2018 continued to provide employees with access to online/micro learning platforms and digital libraries to ensure fit-for-purpose learning anytime, anywhere and on any device. This also enabled teams to deliver on client promises and meet regulatory requirements. The group demonstrated commitment to transformation and diversity more broadly, with promotions and external appointments at top management levels. Representation of black, and specifically African talent, in leadership pipelines continues to improve.

2019 will see continued focus on targeted recruitment strategies to attract the best skills in the market. This coupled with ongoing talent engagements to support retention and development initiatives will ensure the group retains people market share. Focus on youth development and employment, including graduate and learnership programmes will be progressed. The deployment of fit-for-purpose talent management programmes to ensure succession depth and accelerate the development of top talent in line with the diversity and inclusion agenda will be enhanced. The desired investment in an advanced analytics capability to enable managers and human capital to utilise predictive insights about our people and specific employee segments will enable a forward-looking and informed decision-making process.

Business risk



Business risk includes strategic risk. Strategic risk is the risk that the group's future business plans and strategies may be inadequate to prevent financial loss or protect the group's competitive position and shareholder returns. The group's business plans and strategies are discussed and approved by executive management and the board and, where appropriate, subjected to stress tests.

Business risk is usually caused by the following:

- inflexible cost structures
- market-driven pressures, such as decreased demand, increased competition or cost increases
- group-specific causes, such as a poor choice of strategy, reputational damage or the decision to absorb costs or losses to preserve reputation.

The group mitigates business risk in a number of ways, including:

- performing extensive due diligence during the investment appraisal process, in particular for new acquisitions and joint ventures
- detailed analysis of the business case for, and financial, operational and reputational risks associated with, disposals
- the application of new product processes per business line through which the risks and mitigating controls for new and amended products and services are evaluated
- stakeholder management to ensure favourable outcomes from external factors beyond the group's control
- monitoring the profitability of product lines and customer segments
- maintaining tight control over the group's cost base, including the management of its cost-to-income ratio, which allows for early intervention and management action to reduce costs
- being alert and responsive to changes in market forces
- a strong focus in the budgeting process on achieving headline earnings growth while containing cost growth; and building contingency plans into the budget that allow for costs to be significantly reduced in the event that expected revenues do not materialise
- increasing the ratio of variable costs to fixed costs which creates flexibility to reduce costs during an economic downturn
- stress testing techniques applied to assess the resilience of the group's planned earnings under macroeconomic downturn conditions.

The primary governance committee for overseeing this risk is group ALCO.



Reputational risk



Reputation is defined as what stakeholders say and think about the group, including its staff, customers and clients, investors, counterparties, regulators, policymakers, and society at large. Analysts, journalists, academics and opinion leaders also determine the group's reputation. The group's reputation can be harmed from an actual or perceived failure to fulfil the expectations of stakeholders due to a specific incident or from repeated breaches of trust.

Reputational harm can adversely affect the group's ability to maintain existing business, generate new business relationships, access capital, enter new markets, and secure regulatory licences and approvals.

Safeguarding and proactively managing the group's reputation is of paramount importance. There is growing awareness of reputational risks arising from compliance breaches, social and environmental considerations, as well as from ethical considerations linked to countries, clients and sectors.

The group is increasingly managing reputational risk from a tactical and reactive perspective, as well as from a strategic and proactive perspective. In respect to crisis response, the group's crisis management processes are designed to minimise the reputational impact of such events or developments. Crisis management teams are in place both at executive and business line level. This includes ensuring that the group's perspective is fairly represented in the media. In addition, more attention is being paid to leveraging opportunities to proactively bolster the group's reputation among influential stakeholders through programmes, including stakeholder engagement, advocacy, sponsorships, and corporate social initiatives.

The principal governance document is the reputational risk governance standard and the group's qualitative RAS includes a statement on reputation.

The group's code of ethics is an important reference point for all staff. The group ethics officer and group chief executive are the formal custodians of the code of ethics.

Restatements



CREDIT LOSS RATIO

The total CLR for 2017 was restated from 0.86% to 0.87% to align with the updated disclosure methodology that no longer reflects trading assets as part of average loans and advances. Such assets are disclosed separately.

CR3: CRM TECHNIQUES

Correction of error.

CR9: IRB BACKTESTING OF PD PER PORTFOLIO (BANKING OPERATIONS)

Correction of error.

**102 ANNEXURE A – REGULATORY AND
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Annexures

Annexure A – Regulatory and legislative developments impacting the group

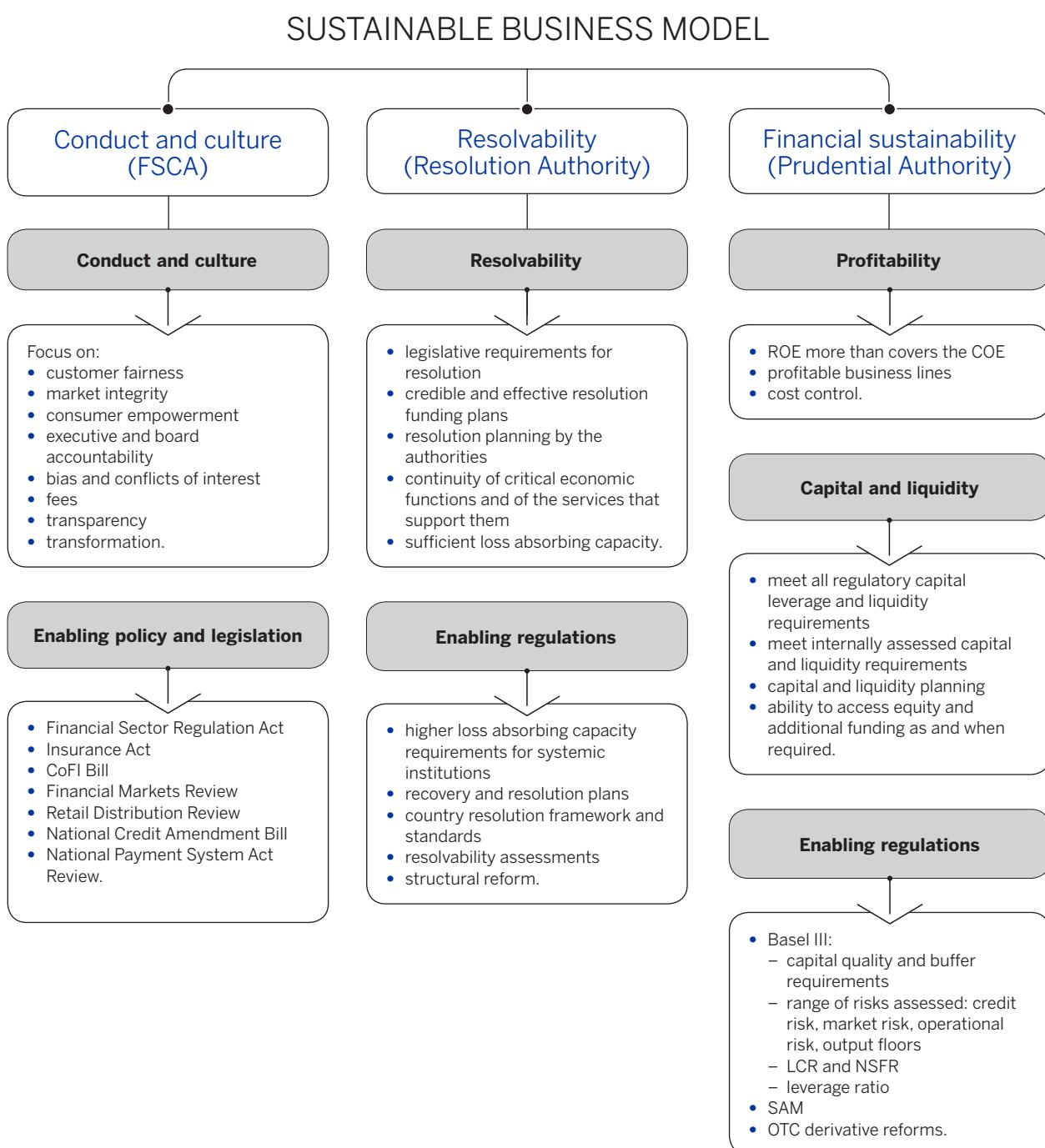
Different regulatory regimes apply in the countries in which the group operates, but there is commonality in many of the focus areas.

The group continues to take a strategic approach to its internal regulatory response in order to efficiently and effectively deal with the breadth and complexity of emerging regulations. This ensures that the group entities are appropriately positioned within the context of the new regulations and are able to deliver the best client outcomes.

The regulations that the group has to comply with can be classified into three main categories:

- conduct and culture
- resolvability
- financial sustainability.

In line with the international regulatory agenda, SA has adopted the Twin Peaks framework of financial regulation in the form of the Financial Sector Regulation Act, which has established two new regulatory authorities, namely the Prudential Authority and the FSCA, with the SARB adopting the role of the Resolution Authority. The diagram below provides a view of the three categories.





The key regulations that have been finalised, as well as the regulations that are expected to be finalised in the short term are outlined below.

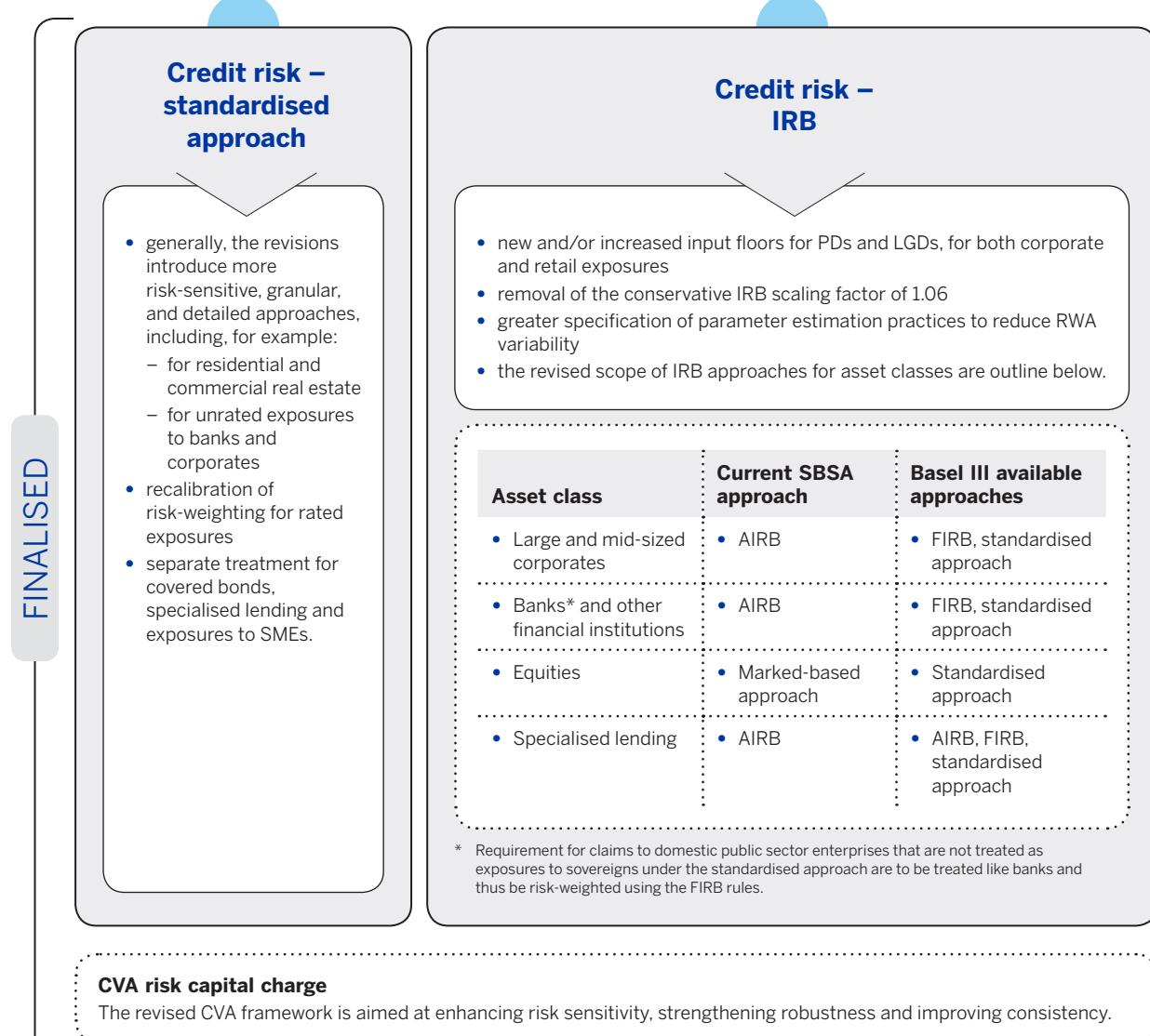
BASEL

In response to the global financial crisis in 2007/2008, the BCBS introduced a range of reforms which were designed to enhance the resilience of the banking system against shocks.

During November 2014, the BCBS issued its work programme aimed at addressing excessive variability in banks' regulatory capital ratios. In December 2017, the BCBS finalised these post-crisis regulatory reforms. The revisions seek to restore credibility in the calculation of RWA and improve the comparability of banks' capital ratios.

Refer to the following table for an overview of the Basel III regulatory reforms, as well as the remaining outstanding key aspects under consideration by the BCBS.

Basel III finalisation – Regulatory changes



Basel III finalisation – Regulatory changes continued

Market risk – fundamental review of the trading book

- revised boundary of the trading and banking book to include stricter criteria for assignment to the trading book
- additional requirements for the treatment of risk transfers across the boundary
- introduce a more risk-sensitive standardised approach that will serve as a fallback approach for IMA and contribute to the standardised capital floor
- revised IMA approach based on expected shortfall for modellable risk factors and a conservative treatment of risk factors considered to be non-modellable
- stricter criteria for internal model approval with increased focus by the supervisor at a trading desk level.

Operational risk – standardised approach

- the NSA for operational risk determines a bank's operational risk capital requirements based on two components: (i) a measure of a bank's size; and (ii) a measure of a bank's historical losses. Conceptually, it assumes:
 - (i) that operational risk increases at an increasing rate with a bank's size
 - (ii) banks which have experienced greater operational risk losses historically are assumed to be more likely to experience operational risk losses in the future.

FINALISED

Capital output floor

- the revisions replace the existing capital floor with a more robust, risk sensitive output floor based on the revised standardised approaches
- total RWA using IMA has a floor calculated by a percentage of RWA as determined through the standardised approaches
- introduction of the capital output floor in 2022 via a phase-in approach over five years: 2022: 50.0%, 2023: 55.0%, 2024: 60.0%, 2025: 65.0%, 2026: 70.0%, 2027: 72.5%.

Leverage

- definition for derivatives and off-balance sheet items
- introduction of a global systemically important bank (G-SIB) buffer.

Basel pillar 3 disclosure requirements – updated framework

- pillar 3 of the Basel framework seeks to promote market discipline through regulatory disclosure requirements. The revised pillar 3 framework reflects the committee's December 2017 Basel III post-crisis regulatory reforms and pertains to the following areas:
 - credit risk, operational risk, the leverage ratio and CVA risk
 - RWA as calculated by the bank's internal models and according to the standardised approaches
 - an overview of risk management, RWA and key prudential metrics
- in addition, the updated framework sets out new disclosure requirements on asset encumbrance and, when required by national supervisors at the jurisdictional level, on capital distribution constraints.

OUTSTANDING

Regulatory treatment of sovereign exposures

There has been no further communication from the BCBS regarding this reform since the discussion paper released on the regulatory treatment of sovereign exposures for comment on 7 December 2017. The discussion paper proposed, among others, to remove the:

- current national discretion that allows a preferential risk-weight for certain sovereign exposures
- option to apply the AIRB approach for sovereign exposures.



OTC DERIVATIVES

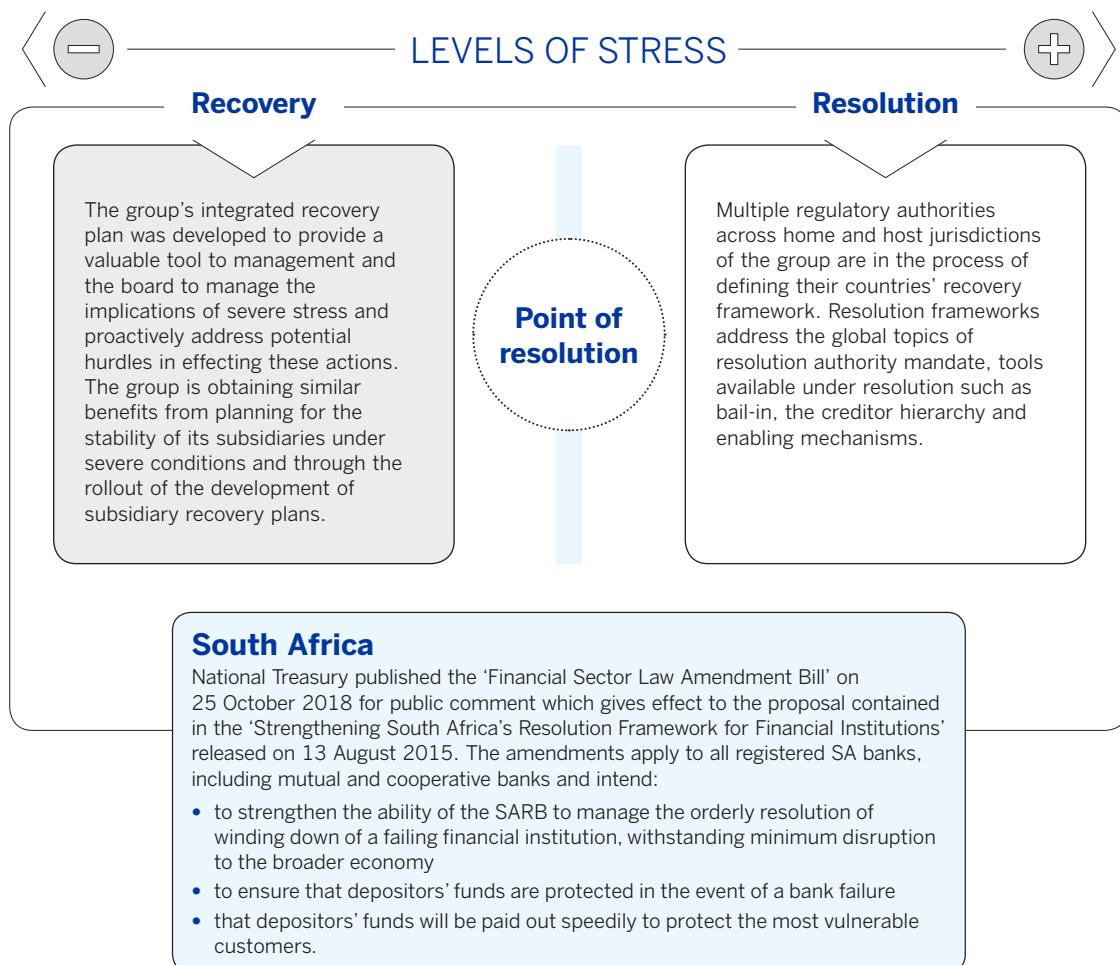
The Financial Markets Act (FMA) regulatory reform framework consists of regulations and board notices. Local banks, including SBSA, are working closely with the National Treasury, the SARB and the local Financial Stability Board (FSB) to ensure that the FMA regulations and board notices meet the objectives set by the Group of Twenty (G20) leaders, are harmonised in so far as is possible with the frameworks being implemented in other G20 countries, and does not impede on the ability of local counterparts to continue to hedge risk effectively and efficiently with local and/or offshore counterparts. The FMA regulations will introduce a requirement for standardised OTC derivatives transactions to be cleared through a CCP, and for non-cleared transactions to become subject to bilateral exchange of initial and variation margin, together with the application of additional risk mitigation techniques (including portfolio reconciliation and portfolio compression).

RECOVERY AND RESOLUTION PLANNING

Internationally, systemic important financial institutions are in the process of adopting the global FSB standards for the effective management of institutions under severe conditions that could affect the stability of the financial system. These guidelines require the development of recovery and resolution plans, another form of proactive planning within the risk management framework. The recovery plans of systematically important institutions proactively identify management actions which can be adopted during periods of severe stress to restore their financial strength and viability. In the event that these actions prove unsuccessful, the resolution plan sets out the approach to resolve the entity in an orderly manner while minimising the impact on its stakeholders. With recovery planning widely adopted, the SA regulatory focus has shifted to resolution planning.

Resolution planning topics of focus for the global FSB over the past year included:

- operationalising bail-in
- funding in resolution
- valuation in resolution
- operational continuity.



RECOVERY AND RESOLUTION PLANNING ACROSS AFRICA REGIONS AND INTERNATIONAL

In line with international developments, 10 out of 20 regulators from the group's host countries have issued draft guidelines or finalised requirements for banks in their respective jurisdictions to develop recovery plans.

The regulatory requirements are aligned to the FSB's 'Key attributes of effective resolution regimes' for financial institutions.

Where host country requirements are not yet defined, subsidiaries develop their recovery plans in line with group standards. Both the group and its banking subsidiaries have obtained value in understanding their core business lines and critical functions and from proactively identifying plausible recovery actions.

Isle of Man

- Explicit depositor insurance
- D-SIB buffer
- Recovery planning

Jersey

- Explicit depositor insurance
- D-SIB buffer
- Recovery planning

Côte d'Ivoire

- Explicit depositor insurance
- D-SIB buffer
- Recovery planning

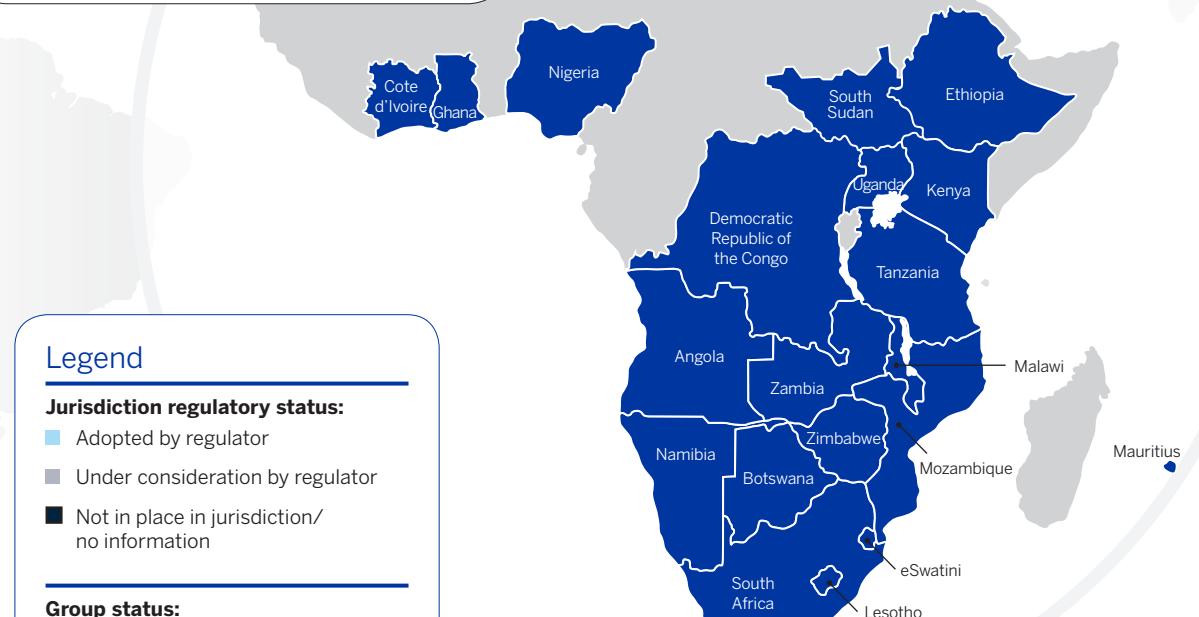
Legend

Jurisdiction regulatory status:

- Adopted by regulator
- Under consideration by regulator
- Not in place in jurisdiction/no information

Group status:

- Countries with group presence





GROUP STRESS SIMULATION

The group uses stress simulations as one of its tools to test the frameworks developed to mitigate and manage stress events or periods. The group conducts these simulations at various levels within the organisation, including at group level involving multiple subsidiaries. In addition to targeted stress simulations (e.g. for BR and liquidity management), the group conducts simulations with up to 120 senior executives across the group to assess the adequacy and effectiveness of the monitoring framework, recovery plans and supporting information for crisis management. The group and its subsidiaries' ability to effectively manage and mitigate severe stress across the group is thoroughly tested and meaningful insights gained.

FINTECH REGULATIONS

Recently technology driven innovation in the financial services industry, or fintech, has attracted increasing attention. Sizeable investments have been made by banks and venture capital funds, indicating the expectations for substantial change. Against this backdrop, the FSB and BCBS have set up task groups to consider the potential implications of this development from an industry, regulatory and financial stability perspective. The international standard setting bodies have provided high-level recommendations for both the supervisors and the industry to mitigate and manage any new risks through enhanced risk management, monitoring processes and upskilling of resources.

In SA, an Intergovernmental FinTech Working Group has been established and includes the SARB, Financial Intelligence Centre, FSCA, and the South African Revenue Service. It is responsible for developing the regulatory framework for fintechs in SA. This includes managing crypto-asset risks, digital security and cyber-crime.

SOUTH AFRICA

Twin Peaks regulatory framework

The Financial Sector Regulation Act was approved and is being implemented. The Twin Peaks system consists of a Prudential Authority focused on the safety and soundness of financial institutions, and a FSCA focused on the manner in which financial institutions conduct their business, market integrity, the fair treatment of customers and financial education. The act is being implemented in two stages:

- **phase one:** establishes the two regulatory authorities to harmonise the various sub-sectoral legislation
- **phase two:** aligns existing legislation into prudential and market conduct standards across the sector and defines new legislation where appropriate.

Prudential regulation

The SA prudential regulation framework is aligned to the G20 international regulatory standards. Refer to the Basel section on page 103 for an overview of the most pertinent prudential developments.

Market conduct

The FSCA has been established and a market conduct policy framework published. At the end of 2018, the draft COFI Bill was published for comment. The draft COFI Bill sets out supervision and regulation of conduct in the financial sector, including the system of licensing, supervision, enforcement, customer complaints, appeal mechanism, customer advice, transformation, financial inclusion and education.

The SARB's review of the National Payment System Act will result in, among other outcomes, the incorporation of conduct reforms that will be applicable to payment service providers.

Consumer credit

The National Credit Amendment Act was amended in 2017 and has been approved by Parliament in 2018. It is waiting for the president to sign it before coming into effect. Proposed changes include activities to assist over-indebted low-income customers through debt relief measures, and mechanisms to allow the National Credit Regulator to penalise reckless lenders more directly. The group continues to engage with policymakers and lawmakers on implementing the Act.

The Insurance Act and Solvency assessment and management

The Insurance Act has been signed into law and was implemented with effect from 1 July 2018. The SAM implementation date coincided with the effective date of the Insurance Act.

AFRICA REGIONS

The domestic landscape of most African jurisdictions has been shaped by both the global and regional agenda, with the latter finding more prominence in policies and regulatory pronouncements. Most developments in 2018 premised on a new vision of a financially and ethically sound financial and banking sector, which hinges on the adoption of customer-centric business models, enhanced transparency and information disclosure, robust information security mechanisms, and an ethical culture.

With the economic headwinds and stagnant growth experienced by most countries, there is renewed focus on corporate governance issues to attract foreign direct investment. Emergent trends centred around the improvement of financial markets through the establishment of listing and reporting rules in order to protect the interests of investors and other participants in commodity exchange and to provide confidence in the commodity exchange.

Creating sound and progressive policy environments has been a priority predominantly to maximise on investment opportunities. Issues such as improving tax management and financial compliance have also been used as an opportunity to raise revenue.

A maturation of frameworks regarding ML/TF, competition and data privacy has been noted during the year. Regulators have continued to exert pressure on financial institutions to adopt risk-based approaches to managing ML/TF risks, with clear expectation around due diligence processes, transaction surveillance and reporting mechanisms to enable this. The number of instances where controls have been deemed inadequate by regulators have not increased significantly during the year, however the failure of controls with international correspondent banks has resulted in even sharper focus in the group.

The tension between embracing globalisation in the form of offshore services and driving the local agenda has been magnified through an increased interest around outsourcing of services, processes, systems and expertise. A greater call for domestic execution or approval for offshored services has resonated with some regulators, with concern raised around the non-development of domestic resources and skills, diminished domestic regulatory oversight and supervision, contractual arrangements between parties and the financial implications on domestic entities.



Contributing to the global trend with regard to cryptocurrencies, most regulators on the continent have refused to recognise and endorse their usage. In the face of growing global and regional focus around alternative means of facilitating payments, it remains to be seen how regulators will respond to this growing pressure.

Bolstering and modernising of national payments systems has been a focus, with a number of jurisdictions set to introduce further legislation in 2019.

Financial institutions have had to respond to the groundswell of regulatory expectation and growing regulatory scrutiny in 2018, with over 420 regulatory developments having an impact on the group reported in the Africa Regions. An upward trajectory in the frequency and scope of regulatory inspections was also observed in the Africa Regions.

Continued focus on customer centric regulations in the form of fee capping persisted during the year, in addition to scrutiny over the management of customer complaints.

IFRS

The group has actively been preparing for the adoption of new IFRS accounting developments, some of which are effective from 1 January 2019.

These include:

- IFRS 9 – General hedge accounting, adoption may be aligned with the effective date of the Portfolio Revaluation Approach (still to be advised) or adopted earlier
- IFRS 16 – Leases, effective 1 January 2019
- IFRS 17 – Insurance Contracts, effective 1 January 2021 (the International Accounting Standards Board is proposing a one-year deferral of the effective date. This proposal will be subject to public consultation, which is expected next year).



For further information regarding these and other accounting developments, please refer to Annexure F – detailed accounting policies in the group's AFS.

Annexure B – Basel pillar 3 credit tables

CR6: IRB – CREDIT RISK EXPOSURES BY PORTFOLIO AND PD RANGE (BANKING OPERATIONS)¹

Refer to page 48 – 49 for the total of the following asset classes.

Corporates

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	24 714	16 021	44.65	31 968	0.07
0.15 to 0.25	38 472	26 554	45.13	50 579	0.22
0.25 to 0.50	103 039	48 063	46.63	125 968	0.40
0.50 to 0.75	35 742	12 844	44.28	41 434	0.64
0.75 to 2.50	63 448	20 563	47.20	73 421	1.33
2.50 to 10.00	9 798	1 778	53.74	10 787	4.16
10.00 to 100.00	1 433	146	39.42	1 493	16.82
100.00 (default)	4 903	1 070	46.66	5 402	100.00
Subtotal	281 549	127 039	45.97	341 052	2.34
2017					
0.00 to 0.15	18 117	12 033	43.47	23 403	0.08
0.15 to 0.25	34 760	15 078	44.24	41 536	0.22
0.25 to 0.50	82 151	54 091	43.74	106 153	0.39
0.50 to 0.75	39 161	12 237	46.03	44 943	0.64
0.75 to 2.50	60 760	15 262	48.79	68 549	1.35
2.50 to 10.00	10 885	3 015	59.07	12 701	3.77
10.00 to 100.00	2 053	1 201	44.06	2 615	15.88
100.00 (default)	2 401	1 546	45.52	3 105	100.00
Subtotal	250 288	114 463	44.97	303 005	1.89

Specialised lending – HVCRE

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15					
0.15 to 0.25					
0.25 to 0.50					
0.50 to 0.75					
0.75 to 2.50					
2.50 to 10.00					
10.00 to 100.00					
100.00 (default)					
Subtotal	176			176	3.45
2017					
0.00 to 0.15					
0.15 to 0.25					
0.25 to 0.50					
0.50 to 0.75					
0.75 to 2.50					
2.50 to 10.00					
10.00 to 100.00					
100.00 (default)					
Subtotal		30		30	1.41
	1			1	100.00
Subtotal		31		31	3.85

¹ Refer to page 48 for an explanation of the items included in this analysis.



Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
139	33.40	2.1	5 850	18.30	8	
302	24.98	1.9	12 002	23.73	28	
657	24.54	2.1	42 369	33.63	124	
252	27.98	2.0	20 124	48.57	74	
10 576	29.88	2.2	50 861	69.27	295	
322	37.14	1.8	12 473	115.63	162	
46	30.51	1.4	2 209	147.96	73	
174	42.81	1.9	4 092	75.74	3 325	
12 468	27.72	2.1	149 980	43.98	4 089	4 348

203	32.59	1.6	3 722	15.90	6	
209	18.09	2.1	7 041	16.95	16	
536	24.65	2.0	34 953	32.93	102	
349	24.82	1.9	19 085	42.46	71	
10 493	30.84	1.9	46 337	67.60	281	
354	34.15	1.6	13 232	104.18	167	
82	31.38	1.7	3 884	148.53	135	
164	43.01	1.3	309	9.96	2 204	
12 390	26.43	1.9	128 563	42.43	2 982	3 365

Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
2	28.62	1.0	6	53.99		
1	35.44	1.0	170	103.69	2	
3	34.97	1.0	176	100.23	2	3

3 23.24 2.0 15 48.93

1 14.11 5.0

4 23.02 2.1 15 47.71

Specialised lending – IPRE

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	103			103	0.11
0.15 to 0.25	402			402	0.21
0.25 to 0.50	9 005		50.00	9 005	0.44
0.50 to 0.75	4 972	5	100.00	4 976	0.64
0.75 to 2.50	5 211			5 212	1.12
2.50 to 10.00	283			283	3.34
10.00 to 100.00					
100.00 (default)	158			158	100.00
Subtotal	20 134	5	94.68	20 139	1.48
2017					
0.00 to 0.15	3			3	0.11
0.15 to 0.25	635			635	0.21
0.25 to 0.50	6 452	2 309	39.50	7 364	0.43
0.50 to 0.75	2 951			2 950	0.64
0.75 to 2.50	5 509	83	59.39	5 559	1.07
2.50 to 10.00	1 082			1 082	3.10
10.00 to 100.00	8			8	28.96
100.00 (default)	23			23	100.00
Subtotal	16 663	2 392	39.97	17 624	0.97
Specialised lending – Project finance					
PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	264	683	39.00	531	0.08
0.15 to 0.25					
0.25 to 0.50	7 058	830	39.06	7 383	0.44
0.50 to 0.75	5 163	1 624	49.96	5 974	0.64
0.75 to 2.50	3 235	446	94.07	3 654	1.05
2.50 to 10.00	2 317			2 317	3.19
10.00 to 100.00					
100.00 (default)	828			828	100.00
Subtotal	18 865	3 583	47.14	20 687	4.89
2017					
0.00 to 0.15					
0.15 to 0.25	1 515	533	54.00	1 803	0.23
0.25 to 0.50	4 125	214	70.58	4 277	0.37
0.50 to 0.75	5 431	150	48.91	5 505	0.64
0.75 to 2.50	5 184	533	90.48	5 664	1.15
2.50 to 10.00	2 326			2 326	3.63
10.00 to 100.00					
100.00 (default)	709			709	100.00
Subtotal	19 290	1 430	65.40	20 284	4.51



Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
11	12.17	1.0	5	4.66		
43	7.93	2.7	36	8.91		
162	11.07	2.5	1 506	16.73	4	
166	16.31	3.1	1 583	31.81	5	
148	19.00	2.3	2 141	41.08	12	
33	17.62	1.8	135	47.92	2	
8	26.64	4.6	394	249.98	17	
571	14.58	2.6	5 800	28.80	40	44

10	5.00	1.0		2.41		
52	10.69	3.1	75	11.82		
168	13.15	2.8	1 559	21.17	4	
145	14.07	2.5	727	24.66	3	
194	16.91	2.7	2 094	37.66	10	
57	20.51	2.2	642	59.35	7	
1	8.04	3.4	4	48.65		
7	17.59	4.7	44	192.11	5	
634	14.85	2.7	5 145	29.19	29	81

Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
1	33.18	5.0	178	33.46		
19	22.09	4.4	3 596	48.70	7	
11	30.91	4.3	4 335	72.57	12	
10	25.11	3.9	2 338	64.01	10	
3	40.15	3.8	2 903	125.28	30	
2	37.22	4.5			579	
46	28.09	4.2	13 350	64.54	638	659

2	22.33	2.9	473	26.21	1	
13	20.01	4.7	1 682	39.33	3	
8	21.57	4.4	2 785	50.59	8	
13	26.37	4.8	4 294	75.79	17	
3	34.84	4.5	2 657	114.25	29	
2	37.21	4.7			427	
41	24.72	4.5	11 891	58.62	485	520

SME corporates

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	1 830	51	74.89	1 880	0.06
0.15 to 0.25	1 673	115	56.15	1 773	0.22
0.25 to 0.50	4 959	854	68.81	5 653	0.38
0.50 to 0.75	3 544	49	68.27	3 579	0.64
0.75 to 2.50	15 913	1 173	64.65	16 748	1.28
2.50 to 10.00	5 518	322	72.31	5 769	3.71
10.00 to 100.00	607	19	71.61	624	15.97
100.00 (default)	2 215		50.00	2 215	100.00
Subtotal	36 259	2 583	66.71	38 241	7.30
2017					
0.00 to 0.15	588	64	74.01	650	0.10
0.15 to 0.25	2 523	127	74.02	2 643	0.22
0.25 to 0.50	1 922	348	73.23	2 242	0.34
0.50 to 0.75	8 192	369	71.33	8 486	0.63
0.75 to 2.50	13 455	749	65.40	14 009	1.39
2.50 to 10.00	5 441	379	65.51	5 719	4.14
10.00 to 100.00	779	25	70.34	798	18.01
100.00 (default)	779		50.00	779	100.00
Subtotal	33 679	2 061	68.47	35 326	4.03
Securities firms					
PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	174			175	0.09
0.15 to 0.25	18			18	0.16
0.25 to 0.50		159	39.84	63	0.45
0.50 to 0.75		50	39.50	20	0.64
0.75 to 2.50					
2.50 to 10.00		1	39.50		2.56
10.00 to 100.00					
100.00 (default)					
Subtotal	192	210	39.76	276	0.22
2017					
0.00 to 0.15	373	90	100.00	463	0.07
0.15 to 0.25		113	42.24	48	0.36
0.25 to 0.50					
0.50 to 0.75		1	39.50		1.81
0.75 to 2.50					
2.50 to 10.00	1			1	6.47
10.00 to 100.00					
100.00 (default)					
Subtotal	374	204	56.65	512	0.11



Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
24	37.64	1.8	325	17.28		
40	33.95	2.0	563	31.77	1	
180	28.59	2.0	2 014	35.64	6	
30	10.20	2.5	570	15.93	2	
521	18.93	2.2	6 207	37.05	43	
437	22.91	2.3	3 404	59.00	52	
22	27.85	1.5	743	119.20	28	
38	45.83	1.8	6 718	303.33	697	
1 292	23.46	2.1	20 544	53.72	829	872
29	26.26	2.0	116	17.78		
32	16.52	1.2	361	13.65	1	
88	26.28	1.9	695	31.07	3	
142	15.91	2.0	2 134	25.15	8	
521	16.92	2.2	4 756	33.95	36	
288	27.96	2.1	4 570	79.91	70	
32	30.85	2.1	1 041	130.40	50	
33	33.39	2.2	39	4.95	509	
1 165	19.88	2.0	13 712	38.82	677	664
8	40.98	3.2	80	45.58		
1	42.84	1.0	6	35.09		
4	40.09	1.0	39	61.36		
2	40.09	1.0		0.98		
1	40.09	1.0		98.35		
16	40.83	2.4	125	45.33		4
12	40.11	1.8	118	25.39		
5	40.09	1.1	26	54.08		
1	40.09	1.0		87.33		
2	29.54	0.9	1	102.37		
20	40.09	1.7	145	28.23		37

Sovereign

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	72 390	1 106	39.39	72 827	0.01
0.15 to 0.25		12	9.64	1	0.47
0.25 to 0.50	2 415	9	35.33	2 417	0.64
0.50 to 0.75	2 614	40	21.17	2 627	0.91
0.75 to 2.50	1	431	34.07	163	2.61
2.50 to 10.00	2	6	32.36	3	14.59
10.00 to 100.00	5			5	100.00
Subtotal	77 427	1 604	36.21	78 043	0.08
2017					
0.00 to 0.15	73 620	12	26.59	73 623	0.01
0.15 to 0.25			30.33		0.21
0.25 to 0.50	2 307	15	11.63	2 310	0.45
0.50 to 0.75	2	46	29.94	16	0.61
0.75 to 2.50	1 926	14	35.60	1 927	0.95
2.50 to 10.00	6	24	26.81	10	9.23
10.00 to 100.00	21	14	38.37	21	30.20
100.00 (default)	4			4	100.00
Subtotal	77 886	125	25.30	77 911	0.06
Public sector entities					
PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	6 665	277	52.08	6 809	0.01
0.15 to 0.25			975.61		0.24
0.25 to 0.50	466	2 011	39.17	1 253	0.32
0.50 to 0.75	3 878	7 016	39.32	6 638	0.64
0.75 to 2.50	1 621	2 315	39.31	2 533	0.91
2.50 to 10.00	202	17	21.11	207	7.14
10.00 to 100.00	2	9	10.17	2	28.78
100.00 (default)					100.00
Subtotal	12 834	11 645	39.39	17 442	0.49
2017					
0.00 to 0.15	4 348			4 348	0.02
0.15 to 0.25		1 237	99.85	1 236	0.23
0.25 to 0.50	842	2 994	38.12	1 986	0.34
0.50 to 0.75	4 582	6 214	39.13	7 014	0.64
0.75 to 2.50	11 216	2 751	62.32	12 939	1.67
2.50 to 10.00	560	4	16.79	560	5.13
10.00 to 100.00	4	345	43.47	152	10.52
100.00 (default)					100.00
Subtotal	21 552	13 545	44.84	28 235	1.12



Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
5	28.07	1.7	2 948	4.05	3	
5	32.02	1.0		38.01		
4	32.41	1.0	1 096	45.33	5	
14	43.09	2.0	2 199	83.70		10
14	48.04	3.5	251	154.38		2
10	31.96	1.0	4	147.86		
7	31.96	1.0				2
59	28.75	1.7	6 498	8.33	22	29
6	29.16	1.5	2 759	3.75	3	
3	37.01	1.0		26.90		
7	34.97	1.0	940	40.68	4	
8	29.00	1.1	7	40.16		
8	45.99	1.3	1 566	81.26	9	
8	37.66	1.0	14	150.52		
15	37.66	1.0	43	204.62	2	
5	37.66	1.0	5	127.38	1	
60	29.75	1.4	5 334	6.85	19	364
Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
1	28.78	3.4	672	9.87		
1	49.41	1.0		39.45		
9	28.18	2.3	453	36.17		1
3	26.35	1.4	2 983	44.94		11
11	26.30	4.3	1 815	71.67		7
13	25.86	1.4	199	95.85		4
7	31.96	1.0	4	167.17		
1	31.96	1.0				
46	27.41	2.7	6 126	35.12	23	43
1	28.94	3.2	503	11.57		
5	13.18	2.1	166	13.41		
10	27.96	2.1	703	35.40	3	
8	26.29	1.5	2 861	40.79	12	
8	22.45	3.6	8 434	65.18	48	
9	10.49	1.0	185	32.96	3	
12	26.59	1.2	173	113.53	4	
2	37.66	1.0		127.38		
55	24.17	2.8	13 025	46.13	70	134

Local governments and municipalities

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15					
0.15 to 0.25	218			218	0.15
0.25 to 0.50	388			388	0.45
0.50 to 0.75	8	674	39.00	271	0.64
0.75 to 2.50	1 572	9	68.90	1 579	1.70
2.50 to 10.00		1	9.25		9.76
10.00 to 100.00	35			35	17.59
100.00 (default)					
Subtotal	2 221	684	39.04	2 491	1.48
2017					
0.00 to 0.15	205			205	0.14
0.15 to 0.25		3	75.00	3	0.21
0.25 to 0.50	45	1	9.73	45	0.42
0.50 to 0.75	391			391	0.64
0.75 to 2.50	1 442	500	39.50	1 639	1.85
2.50 to 10.00	13	1	9.74	13	4.33
10.00 to 100.00		2		2	11.70
100.00 (default)					100.00
Subtotal	2 098	505	39.22	2 298	1.49
Banks					
PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	47 402	8 584	46.16	51 364	0.07
0.15 to 0.25	106	380	34.90	238	0.16
0.25 to 0.50	13 494	108	42.10	13 540	0.45
0.50 to 0.75	2	4	59.32	4	0.64
0.75 to 2.50	2 935	3 689	34.95	4 225	1.28
2.50 to 10.00	11	117	24.61	40	3.57
10.00 to 100.00		1	20.00		19.68
100.00 (default)					
Subtotal	63 950	12 883	41.58	69 411	0.22
2017					
0.00 to 0.15	42 676	5 633	95.44	48 053	0.07
0.15 to 0.25	539	272	83.95	768	0.17
0.25 to 0.50	19 841	76	68.65	19 893	0.45
0.50 to 0.75	2	52	96.55	52	0.64
0.75 to 2.50	4 960	956	27.63	5 224	1.37
2.50 to 10.00	226	63	93.79	285	2.57
10.00 to 100.00					10.24
100.00 (default)					100.00
Subtotal	68 244	7 052	71.11	74 275	0.27



Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
19	30.80	1.0	91	41.53		
13	26.23	3.5	188	48.42		
4	21.13	1.0	81	29.80		
40	28.20	1.8	1 414	89.59	9	
7	25.17	0.6		103.10		
4	23.07	2.7	43	122.54		1
87	27.28	1.9	1 817	72.93	10	14
15	30.69	1.0	85	41.51		
3	30.69	1.0	1	22.29		
10	26.31	2.6	18	40.17		
6	26.28	4.3	241	61.58	1	
36	26.97	1.9	1 418	86.51	9	
6	22.05	1.8	8	65.04		
2	30.69	1.0	4	168.29		
2	37.58	1.0		125.87		
80	27.15	2.2	1 775	77.23	10	10
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Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
99	40.28	1.2	10 118	19.70	15	
13	42.90	1.1	86	36.16		
20	45.98	1.0	9 550	70.53	28	
4	47.04	2.5	3	87.43		
37	49.07	1.0	4 121	97.55	26	
15	43.53	1.0	49	122.64	1	
3	56.73	1.0	1	261.27		
191	41.94	1.1	23 928	34.47	70	114
98	40.30	1.1	9 184	19.11	14	
20	42.96	1.1	249	32.43	1	
24	45.93	1.1	14 032	70.54	41	
6	47.04	1.0	34	65.81		
33	49.28	1.0	5 036	96.40	35	
13	43.16	1.1	306	107.27	3	
1	55.44	1.0	1	231.77		
1	61.93	5.0				
196	42.49	1.1	28 842	38.83	94	392

Retail mortgages

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	517	4 280	60.08	3 088	0.07
0.15 to 0.25	15 964	26 953	63.93	33 197	0.20
0.25 to 0.50	48 532	5 318	72.81	52 408	0.39
0.50 to 0.75	57 257	1 137	105.75	58 463	0.61
0.75 to 2.50	129 348	551	160.32	130 298	1.23
2.50 to 10.00	48 672	71	124.29	48 781	4.17
10.00 to 100.00	22 704	2	110.75	22 708	27.48
100.00 (default)	14 682			14 682	100.00
Subtotal	337 676	38 312	65.98	363 625	6.93
2017					
0.00 to 0.15	2 075	17 801	58.32	12 455	0.11
0.15 to 0.25	14 479	15 201	62.46	23 974	0.20
0.25 to 0.50	42 662	5 468	69.11	46 444	0.39
0.50 to 0.75	61 251	1 645	102.94	62 949	0.63
0.75 to 2.50	118 891	483	148.05	119 687	1.31
2.50 to 10.00	50 728	114	118.01	50 888	4.17
10.00 to 100.00	23 053	2	122.18	23 057	28.01
100.00 (default)	14 316			14 316	100.00
Subtotal	327 455	40 714	62.83	353 770	7.09
QRRE					
PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	195	3 010	109.95	3 505	0.12
0.15 to 0.25	483	1 871	112.02	2 578	0.20
0.25 to 0.50	1 042	1 734	113.07	3 004	0.36
0.50 to 0.75	1 148	4 202	38.81	2 743	0.66
0.75 to 2.50	20 533	19 389	45.22	27 886	1.58
2.50 to 10.00	30 744	5 312	82.41	33 670	4.49
10.00 to 100.00	6 595	746	90.01	7 673	27.02
100.00 (default)	5 109			5 109	100.00
Subtotal	65 849	36 264	54.19	86 168	10.64
2017					
0.00 to 0.15	318	3 990	96.90	4 184	0.11
0.15 to 0.25	528	2 228	90.35	2 536	0.19
0.25 to 0.50	1 110	2 507	84.33	3 204	0.35
0.50 to 0.75	1 906	6 832	39.21	4 250	0.67
0.75 to 2.50	19 844	14 870	50.66	26 144	1.60
2.50 to 10.00	28 193	4 736	82.77	30 861	4.44
10.00 to 100.00	6 484	535	86.16	7 309	26.22
100.00 (default)	6 092			6 092	100.00
Subtotal	64 475	35 698	56.96	84 580	11.64



Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
17 159	11.88		72	2.34		
81 850	12.56		1 748	5.26	8	
112 373	11.88		4 327	8.26	25	
87 176	13.42		7 458	12.76	48	
161 838	16.28		31 931	24.51	263	
72 600	16.73		25 118	51.49	339	
37 886	16.32		20 787	91.54	1 044	
24 026	16.25		20	0.14	4 627	
594 908	14.87		91 461	25.15	6 354	6 919
44 190	12.27		400	3.21	2	
56 144	12.58		1 302	5.43	6	
101 475	11.98		3 822	8.23	22	
98 585	13.49		8 228	13.07	54	
154 693	16.08		30 165	25.20	255	
79 544	16.62		26 016	51.12	350	
39 940	16.38		21 051	91.30	1 085	
24 147	16.76		316	2.21	3 738	
598 718	14.84		91 300	25.81	5 512	5 276
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Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
101 041	58.11		151	4.30	2	
75 702	58.59		170	6.58	3	
85 985	59.03		321	10.70	6	
124 514	62.52		506	18.44	11	
1 249 513	66.23		10 454	37.49	293	
1 571 145	65.20		25 514	75.78	973	
525 360	64.27		12 880	167.86	1 337	
226 906	64.80		2 237	43.78	3 191	
3 960 166	64.64		52 233	60.62	5 816	6 674
131 291	58.21		166	3.96	3	
82 418	59.10		165	6.49	3	
185 708	59.54		336	10.51	7	
229 453	64.04		810	19.06	18	
1 090 808	65.99		9 850	37.68	276	
1 620 769	64.76		23 133	74.96	877	
552 380	62.71		11 868	162.38	1 213	
214 140	64.22		1 352	22.19	3 879	
4 106 967	64.20		47 680	56.37	6 276	4 234

Retail other

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	1			1	0.12
0.15 to 0.25	149	3	120.23	153	0.19
0.25 to 0.50	4 497	27	113.09	4 527	0.46
0.50 to 0.75	755	9	110.30	765	0.63
0.75 to 2.50	18 680	83	101.98	18 768	1.65
2.50 to 10.00	18 808	48	60.95	18 838	4.89
10.00 to 100.00	5 080	1	120.45	5 080	24.59
100.00 (default)	2 070			2 070	100.00
Subtotal	50 040	171	87.46	50 202	9.11
2017					
0.00 to 0.15	38	25	109.21	65	0.13
0.15 to 0.25	132	8	114.50	142	0.18
0.25 to 0.50	3 472	21	117.55	3 497	0.28
0.50 to 0.75	666	21	113.57	690	0.63
0.75 to 2.50	16 340	47	75.93	16 375	1.63
2.50 to 10.00	14 970	29	111.48	15 004	5.14
10.00 to 100.00	4 321		18.08	4 322	22.20
100.00 (default)	1 797			1 797	100.00
Subtotal	41 736	151	98.30	41 892	9.09

SME retail

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post-CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15	2 441	5 616	82.87	7 095	0.07
0.15 to 0.25	2 311	2 031	79.10	3 919	0.20
0.25 to 0.50	6 722	2 516	70.62	8 475	0.40
0.50 to 0.75	2 399	1 454	66.82	3 361	0.60
0.75 to 2.50	19 728	2 746	59.52	21 400	1.42
2.50 to 10.00	7 642	2 915	34.24	9 107	4.94
10.00 to 100.00	3 312	280	37.66	3 820	23.84
100.00 (default)	2 272			2 272	100.00
Subtotal	46 827	17 558	60.64	59 449	6.73
2017					
0.00 to 0.15	2 306	5 350	79.01	6 535	0.07
0.15 to 0.25	1 963	2 038	74.58	3 479	0.19
0.25 to 0.50	7 614	2 987	63.07	9 460	0.40
0.50 to 0.75	2 398	1 384	60.46	3 224	0.59
0.75 to 2.50	19 813	2 793	58.63	21 454	1.39
2.50 to 10.00	7 345	2 628	34.52	8 361	4.82
10.00 to 100.00	3 226	235	39.91	3 584	24.81
100.00 (default)	2 278			2 278	100.00
Subtotal	46 943	17 415	59.04	58 375	6.74



Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
111	0.65			0.19		
747	5.71		4	2.51		
1 441	26.04		853	18.84	5	
4 129	28.33		187	24.41	1	
102 097	28.21		6 817	36.32	92	
127 787	34.00		10 013	53.15	323	
110 015	48.09		5 443	107.15	593	
32 058	39.95		481	23.24	908	
378 385	32.62		23 798	47.40	1 922	2 253
148	34.35		7	10.90		
639	9.91		6	4.11		
1 438	26.16		489	13.98	3	
4 056	30.25		180	26.03	1	
93 885	27.91		5 880	35.91	79	
105 540	34.91		8 242	54.93	277	
92 895	47.34		4 482	103.72	447	
30 813	40.41		265	14.75	809	
329 414	32.80		19 551	46.67	1 616	991
Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
20 529	44.38		625	8.81	2	
88 162	43.12		725	18.51	3	
34 247	38.83		2 161	25.50	13	
46 733	42.76		1 209	35.97	9	
116 269	37.70		9 746	45.53	114	
139 269	43.78		6 208	68.17	196	
51 090	45.66		4 008	104.91	418	
19 069	41.79			0.01	1 327	
515 368	40.90		24 682	41.52	2 082	2 329
20 453	44.09		571	8.74	2	
57 553	44.49		651	18.70	3	
93 880	38.98		2 430	25.70	14	
21 101	41.84		1 125	34.89	8	
117 737	38.52		9 903	46.16	115	
125 481	44.04		5 712	68.32	176	
58 678	46.19		3 833	106.95	413	
14 984	44.75		30	1.30	1 303	
509 867	41.26		24 255	41.55	2 034	1 557

Equity

PD scales	Original on-balance sheet gross exposure Rm	Off-balance sheet exposures pre-CCF Rm	Average CCF %	EAD post- CRM and post-CCF Rm	Average PD %
2018					
0.00 to 0.15		71		71	0.11
0.15 to 0.25		33		33	0.23
0.25 to 0.50		524		524	0.41
0.50 to 0.75					
0.75 to 2.50		1 492		1 492	1.10
2.50 to 10.00		51		51	3.62
10.00 to 100.00					
100.00 (default)		738		738	100.00
Subtotal	2 909			2 909	26.08
0.00 to 0.15		68		68	0.11
0.15 to 0.25					
0.25 to 0.50		595		595	0.39
0.50 to 0.75		110		110	0.64
0.75 to 2.50		879		879	0.95
2.50 to 10.00		580		580	2.56
10.00 to 100.00		1		1	28.96
100.00 (default)		78		78	100.00
Subtotal	2 311			2 311	4.53



Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %	EL Rm	Impairment provisions Rm
1	90.00	5.0	225	318.00		
1	90.00	5.0	103	318.00		
4	90.00	5.0	1 144	218.53		
9	90.00	5.0	4 832	323.68	7	
2	90.00	5.0	180	352.00	2	
2	90.00	5.0	8 305	1 125.00		
19	90.00	5.0	14 789	227.83	9	
1	90.00	5.0	218	318.00		
3	90.00	5.0	1 056	177.52		
3	90.00	5.0	351	318.00		
4	90.00	5.0	2 862	325.59	5	
2	90.00	5.0	1 895	327.09	14	
1	90.00	5.0	3	573.24		
2	90.00	5.0	880	1 125.00		
16	90.00	5.0	7 265	314.37	19	76

CCR4: IRB – CCR EXPOSURES BY PORTFOLIO AND PD SCALE (BANKING OPERATIONS)

Refer to page 60 for the total of the following asset classes.

Corporates

PD scales	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %
2018							
0.00 to 0.15	153	0.08	16	37.98	2.5	41	26.72
0.15 to 0.25	799	0.22	41	39.94	1.5	320	39.99
0.25 to 0.50	2 206	0.39	154	39.47	1.6	1 191	54.00
0.50 to 0.75	411	0.64	59	39.97	1.2	251	61.12
0.75 to 2.50	593	1.05	107	40.40	1.9	498	84.15
2.50 to 10.00	204	2.71	43	40.24	1.1	208	101.90
10.00 to 100.00	3	10.24	1	61.93	1.0	8	258.90
100.00 (default)	1	100.00	3	40.09	1.0	1	108.66
Subtotal	4 370	0.60	424	39.73	1.6	2 518	57.63
2017							
0.00 to 0.15	493	0.09	13	30.31	1.5	89	18.11
0.15 to 0.25	1 714	0.22	48	32.03	1.2	454	26.48
0.25 to 0.50	1 867	0.39	149	34.62	1.5	819	43.86
0.50 to 0.75	1 061	0.64	72	38.45	2.6	765	72.08
0.75 to 2.50	574	1.26	115	39.06	1.5	480	83.66
2.50 to 10.00	217	3.01	43	39.22	1.1	228	105.19
10.00 to 100.00	6	38.70	3	37.80	1.0	13	202.29
100.00 (default)		100.00	2	40.09	1.0	1	531.19
Subtotal	5 932	0.58	445	34.80	1.6	2 849	48.03

SME corporates

PD scales	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %
2018							
0.00 to 0.15							
0.15 to 0.25							
0.25 to 0.50	47	0.33	3	40.09	4.1	33	69.59
0.50 to 0.75	41	0.64	7	40.31	2.1	24	57.46
0.75 to 2.50	43	1.35	13	42.28	2.0	38	89.39
2.50 to 10.00	109	2.62	3	40.09	1.2	84	77.44
Subtotal	240	1.60	26	40.52	2.1	179	74.59
2017							
0.00 to 0.15	42	0.08	1	40.09	5.0	15	36.22
0.15 to 0.25	14	0.23	1	43.89	5.0	8	57.77
0.25 to 0.50	36	0.32	3	40.09	1.0	14	38.96
0.50 to 0.75	69	0.64	8	40.09	2.4	44	64.01
0.75 to 2.50	33	1.14	11	41.36	2.6	32	95.62
2.50 to 10.00	6	4.17	6	30.62	1.0	5	82.34
10.00 to 100.00		10.24	1	40.09	1.0		145.79
Subtotal	200	0.63	31	40.30	2.9	118	59.06


Securities firms

PD scales	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %
2018							
0.00 to 0.15	10 783	0.05	9	39.25	1.3	1 709	15.85
0.15 to 0.25							
0.25 to 0.50	78	0.45	6	41.83	1.0	50	63.84
0.50 to 0.75	5	0.64	5	40.09	1.0	3	56.40
0.75 to 2.50			1				
2.50 to 10.00	58	2.56	1	40.09	1.0	56	98.35
10.00 to 100.00							
100.00 (default)							
Subtotal	10 924	0.07	22	39.27	1.3	1 818	16.65
2017							
0.00 to 0.15	6 449	0.05	12	38.98	1.1	1 004	15.57
0.15 to 0.25		0.23	2	40.09	1.0		30.70
0.25 to 0.50	1 171	0.45	8	39.07	1.0	696	59.45
0.50 to 0.75	4	0.64	3	38.65	1.0	3	69.97
0.75 to 2.50							
2.50 to 10.00		2.56	2	31.11	1.0		76.28
10.00 to 100.00							
100.00 (default)							
Subtotal	7 624	0.12	27	38.99	1.1	1 703	22.34

Sovereign

PD scales	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %
2018							
0.00 to 0.15	55	0.01	2	27.55	1.0	1	2.06
0.15 to 0.25							
0.25 to 0.50	483	0.32	2	35.33	4.4	405	83.80
0.50 to 0.75							
0.75 to 2.50		0.90	1	26.29	1.0		43.40
2.50 to 10.00							
10.00 to 100.00							
100.00 (default)							
Subtotal	538	0.29	5	34.53	4.0	406	75.44
2017							
0.00 to 0.15	1 538	0.01	2	28.13	1.0	36	2.30
0.15 to 0.25	770	0.23	1	32.77	4.6	400	51.89
0.25 to 0.50							
0.50 to 0.75							
0.75 to 2.50	1	0.90	1	26.29	4.1		67.36
2.50 to 10.00							
10.00 to 100.00							
100.00 (default)							
Subtotal	2 309	0.08	4	29.67	2.2	436	18.87

Public sector entities

PD scales	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %
2018							
0.00 to 0.15							
0.15 to 0.25	6	0.23	1	40.09	1.0	3	40.96
0.25 to 0.50	590	0.44	4	45.13	2.5	420	71.22
0.50 to 0.75	161	0.64	2	26.29	1.1	64	39.53
0.75 to 2.50	3	0.90	2	26.29	2.3	2	68.48
2.50 to 10.00	420	7.24	1	26.29	4.9	519	123.65
10.00 to 100.00		10.24	1	40.09	1.0		167.60
100.00 (default)							
Subtotal	1 180	2.89	11	35.78	3.2	1 008	85.39
2017							
0.00 to 0.15							
0.15 to 0.25		0.23	1	26.29	1.0		20.13
0.25 to 0.50	987	0.42	4	42.54	3.1	717	72.82
0.50 to 0.75	131	0.64	2	26.29	1.6	54	41.11
0.75 to 2.50	318	1.80	3	26.29	2.5	220	68.94
2.50 to 10.00	4	5.12	2	26.29	1.0	4	82.44
10.00 to 100.00		10.24	1	26.29	1.0		109.91
100.00 (default)							
Subtotal	1 440	0.76	13	37.41	2.8	995	69.10

Project finance

PD scales	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %
2018							
0.00 to 0.15							
0.15 to 0.25							
0.25 to 0.50	473	0.45	16	40.53	4.8	426	89.95
0.50 to 0.75	216	0.64	10	28.58	4.3	143	66.40
0.75 to 2.50	115	0.93	4	32.08	4.8	85	74.34
2.50 to 10.00	13	2.69	2	44.46	2.4	13	99.53
10.00 to 100.00							
100.00 (default)							
Subtotal	817	0.61	32	36.25	4.6	667	81.69
2017							
0.00 to 0.15							
0.15 to 0.25							
0.25 to 0.50	197	0.36	13	18.56	4.3	68	34.74
0.50 to 0.75	438	0.64	6	32.75	4.7	354	80.85
0.75 to 2.50	335	1.06	6	31.29	4.8	279	83.13
2.50 to 10.00	5	7.24	1	33.18	5.0	8	156.66
10.00 to 100.00							
100.00 (default)							
Subtotal	975	0.76	26	29.38	4.6	709	72.71



Banks

PD scales	EAD post-CRM Rm	Average PD %	Number of obligors	Average LGD %	Average maturity Years	RWA Rm	RWA density %
2018							
0.00 to 0.15	11 553	0.05	42	39.23	1.7	2 289	19.80
0.15 to 0.25	6	0.23	3	43.89	1.0	2	44.85
0.25 to 0.50	4 878	0.45	8	45.99	1.4	3 735	76.58
0.50 to 0.75	3	0.64	4	47.04	1.5	2	72.60
0.75 to 2.50	461	1.28	22	49.13	1.4	461	99.77
2.50 to 10.00	4	3.51	6	52.18	1.0	6	142.38
10.00 to 100.00							
100.00 (default)							
Subtotal	16 905	0.20	85	41.46	1.6	6 495	38.42
2017							
0.00 to 0.15	9 003	0.05	45	39.21	2.0	2 008	22.31
0.15 to 0.25							
0.25 to 0.50	3 130	0.45	7	45.98	1.4	2 391	76.39
0.50 to 0.75	114	0.64	5	47.04	1.5	82	71.85
0.75 to 2.50	137	1.14	18	48.75	1.0	126	92.42
2.50 to 10.00	4	3.98	4	52.43	1.0	6	148.92
10.00 to 100.00							
100.00 (default)							
Subtotal	12 388	0.17	80	41.10	1.8	4 613	37.23

Annexure C – Regulatory capital

CC1: COMPOSITION OF REGULATORY CAPITAL¹

	2018 Basel III Rm	2017 Basel III Rm
CET I capital		
Instruments and reserves		
CET I capital before regulatory adjustments	134 241	118 282
Directly issued qualifying common share capital plus related stock surplus	158 869	150 608
Retained earnings	17 860	18 063
Accumulated other comprehensive income (and other reserves)	137 474	133 486
Directly issued capital subject to phase-out from CET I (only applicable to non-joint stock companies)	(1 916)	(5 833)
Public sector capital injections grandfathered until 1 January 2018	5 451	4 892
Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET I)		
Regulatory adjustments		
Less: total regulatory adjustments to CET I	(24 628)	(32 326)
Prudential valuation adjustments	4 211	(51)
Goodwill (net of related tax liability)	(2 208)	(1 904)
Other intangibles other than mortgage-servicing rights (net of related tax liability)	(17 703)	(18 603)
Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability)	(243)	(78)
Cash-flow hedge reserve	140	(137)
Shortfall of provisions to EL		(2 076)
Securitisation gain on sale		
Gains and losses due to changes in own credit risk on fair valued liabilities	(54)	1
Defined-benefit pension fund net assets	(94)	(216)
Investments in own shares (if not already netted of paid-in capital on reported balance sheet)	(61)	(121)
Reciprocal cross-holdings in common equity		
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)		
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)		
Mortgage servicing rights (amount above 10% threshold)	(8 616)	(9 141)
Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)		
Amount exceeding the 15% threshold, relating to:		
Significant investments in the common stock of financials		
Mortgage servicing rights		
Deferred tax assets arising from temporary differences		
National-specific regulatory adjustments		
Regulatory adjustments applied to CET I in respect of amounts subject to pre-Basel III treatment		
Regulatory adjustments applied to CET I due to insufficient AT 1 and Tier II to cover deductions		



	2018 Basel III Rm	2017 Basel III Rm
AT 1 capital		
Instruments		
AT 1 capital before regulatory adjustments		
Directly issued qualifying AT 1 instruments plus related stock surplus, classified as:		
Equity under applicable accounting standards	6 087	6 707
Liabilities under applicable accounting standards	5 742	6 291
Directly issued capital instruments subject to phase-out from AT 1	5 742	6 291
AT 1 instruments (and CET I instruments not included in common share capital) issued by subsidiaries and held by third parties (amount allowed in group AT 1), including:		
Instruments issued by subsidiaries subject to phase-out	5 495	5 495
Instruments issued by third parties	385	416
Total regulatory adjustments to AT 1 capital	(40)	(40)
Investments in own AT 1 instruments		
Reciprocal cross-holdings in AT 1 instruments		
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)		
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)		
National-specific regulatory adjustments:		
Regulatory adjustments applied to CET I in respect of amounts subject to pre-Basel III treatment		
Regulatory adjustments applied to AT 1 due to insufficient AT 1 due to insufficient Tier II to cover deductions		
Tier I capital	140 328	124 989

	2018 Basel III Rm	2017 Basel III Rm
Capital and provisions		
Tier II capital before regulatory adjustments	21 356	19 253
Directly issued qualifying Tier II instruments plus related stock surplus	18 580	17 080
Directly issued capital instruments subject to phase-out from Tier II	6 000	9 500
Tier II instruments (and CET I and AT 1 instruments not included in common share capital and AT 1 instruments) issued by subsidiaries and held by third parties (amount allowed in group Tier II), including:		
Instruments issued by subsidiaries subject to phase-out		
Provisions	2 776	2 173
Regulatory adjustments		
Total regulatory adjustments to Tier II capital	(1 035)	(2 303)
Investments in own Tier II instruments		
Reciprocal cross-holdings in Tier II instruments		
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)		
Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)		
National-specific regulatory adjustments		
Regulatory adjustments applied to Tier II in respect of amounts subject to pre-Basel III treatment		
Tier II capital	20 321	16 950
Total capital	160 649	141 939
Total RWA	1 079 642	957 046
RWA in respect of amounts subject to pre-Basel III treatment		
Capital ratios and buffers		
CET I (as a % of RWA)	12.4	12.4
Tier I (as a % of RWA)	13.0	13.1
Total capital (as a % of RWA)	14.9	14.8
Institution-specific buffer requirement (minimum CET I requirement plus capital conservation buffer plus countercyclical buffer requirements plus G-SIB buffer requirement, expressed as a % of RWA)	7.4	7.3
Capital conservation buffer requirement (%)	1.9	1.3
Bank-specific countercyclical buffer requirement (%)		
G-SIB buffer requirement (%)		
CET I available to meet buffers (as a % of RWA)	5.0	5.1



	2018 Basel III Rm	2017 Basel III Rm
National minima (if different from Basel III)		
National CET I minimum ratio (if different from Basel III minimum) – excluding individual capital requirement (ICR) and D-SIB (%)	7.4	7.3
National Tier I minimum ratio (if different from Basel III minimum) – excluding ICR and D-SIB	8.9	8.5
National total capital minimum ratio (if different from Basel III minimum) – excluding ICR and D-SIB	11.1	10.8
Amounts below the threshold for deductions (before risk-weighting)		
Non-significant investments in the capital of other financials	552	777
Significant investments in the common stock of financials	13 859	12 726
Mortgage servicing rights (net of related tax liability)		
Deferred tax assets arising from temporary differences (net of related tax liability)	6 327	3 530
Applicable caps on the inclusion of provisions in Tier II		
Provisions eligible for inclusion in Tier II in respect of exposures subject to standardised approach (prior to application of cap)	3 221	2 173
Cap on inclusion of provisions in Tier II under standardised approach	4 113	3 384
Provisions eligible for inclusion in Tier II in respect of exposures subject to internal ratings-based approach (prior to application of cap) ²	2 481	
Cap for inclusion of provisions in Tier II under IRB approach	(445)	2 325
Capital instruments subject to phase-out arrangements (only applicable between 1 January 2018 and 1 January 2022)		
Current cap on CET I instruments subject to phase out arrangements		
Amount excluded from CET I due to cap (excess over cap after redemptions and maturities)		
Current cap on AT 1 instruments subject to phase out arrangements		
Amount excluded from AT 1 due to cap (excess over cap after redemptions and maturities)		
Current cap on Tier II instruments subject to phase out arrangements		
Amount excluded from Tier II due to cap (excess over cap after redemptions and maturities)		

¹ Disclosure based on prescribed SARB template. All blank line items are not applicable as at 31 December 2018.

² Based on SARB IFRS 9 phased-in approach.

CC2: RECONCILIATION OF IFRS AUDITED**Statement of financial position and regulatory capital and reserves**

	Balance sheet Rm	Under regulatory scope of consolidation Rm
2018		
Cash and balances with central banks	85 145	85 145
Derivative assets	51 678	48 429
Trading assets	181 112	178 327
Pledged assets	19 879	7 218
Financial investments	547 405	203 891
Current tax assets	601	599
Disposal group assets held for sale	762	
Loans and advances	1 120 668	1 121 432
Policyholders' assets	6 708	
Other assets	22 514	12 956
Of which: defined-benefit pension fund net assets		765
Interest in associates and joint ventures	10 376	22 759
Of which: CET 1 capital deductions		8 616
Investment property	33 326	
Property and equipment	19 194	15 999
Goodwill and other intangible assets	23 676	23 006
Of which: goodwill		2 208
Of which: other intangibles		20 798
Deferred tax assets	3 918	3 672
Of which: deferred tax liability other intangible assets (CET 1 deduction)		(2 819)
Of which: deferred tax asset that relies on future profitability (CET 1 deduction)		243
Of which: deferred tax liability defined-benefit pension fund net assets (CET 1 deduction)		(37)
Total assets	2 126 962	1 723 433
	LI1	LI1
Liabilities		
Derivative liabilities	55 057	49 586
Trading liabilities	59 947	61 267
Current tax liabilities	5 188	4 836
Deposits and debt funding	1 357 537	1 374 698
Policyholders' liabilities	310 994	
Subordinated debt	26 359	20 819
Of which Tier II capital		17 545
Disposal group liabilities held for sale	237	
Provisions and other liabilities	109 753	32 519
Deferred tax liabilities	2 827	131
Of which: deferred tax liabilities related to other intangible assets		276
Total liabilities	1 927 899	1 543 856
	LI1	LI1
Shareholder's equity		
Paid-in share capital	17 860	17 860
Of which: amount eligible for CET 1		17 860
Retained earnings and other reserves	147 201	147 201
Of which: amount eligible for CET 1		134 474
Equity attributable to other equity instrument holders	9 047	9 047
Of which: AT 1 capital		5 742
Equity attributable to non-controlling interest	24 955	24 955
Of which: CET 1 capital		5 451
Of which: AT 1 capital		345
Total shareholders' equity	199 063	199 063

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